

Crazy Sequential Representation: Numbers from 0 to 11111 in terms of Increasing and Decreasing Orders of 1 to 9

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ABSTRACT. Natural numbers from 0 to 11111 are written in terms of 1 to 9 in two different ways. The first one in increasing order of 1 to 9, and the second one in decreasing order. This is done by using the operations of *addition*, *multiplication*, *subtraction*, *potentiation*, and *division*. In both the situations there are no missing numbers, except one, i.e., 10958 in the increasing case.

1. INTRODUCTION

Author [1, 2, 3] wrote the numbers from 44 to 11111 in terms of 1 to 9 in two different ways, one is in increasing order and another in decreasing order. Some comments on this work can be seen in [5, 6, 7, 8]. The operations used are only *addition*, *multiplication*, and *potentiation*. The idea of brackets is also used, i.e., the following operations were used:

[*plus, product, potentiation, brackets*].

From the mathematical point of view, the brackets are understood as *composite rule*. The operations such as *subtraction* and *division* are also very important. In this work, the operations of *subtraction* and *division* are also included. This is done to find missing numbers not available in the previous versions. This work is done by using the following operations:

[*plus, minus, product, potentiation, division, brackets*].

In the previous work [3], there were approximately 1250 numbers were missing in both the cases. Here, we have found almost all the missing numbers from 0 to 11111, except one, i.e., 10958 in the increasing case. These missing numbers having either *subtraction* and/or *division*, and are written in *italic* forms to identify. Still, there are more operations that can be applied, such as:

[*factorial, decimal, square root, etc.*].

By applying these operations, may be one can find the number 10958. This shall be dealt elsewhere.

The mathematical idea behind this work is based on simple combinations. If we have two different positive natural numbers in a sequence, for example a and b , then we can write,

$$a + b, a \times b, a^b \text{ and } ab$$

We have only four ways of writing two numbers, for example if we have $a = 2$ and $b = 3$, then one can write $2 + 3$, 2×3 , 2^3 and 23 in the increasing order, and $3 + 2$, 3×2 , 3^2 and 32 in decreasing order.

Again, let us consider three positive natural numbers, a , b and c with either $a < b < c$ or $a > b > c$. Following the same procedure for two numbers, here below are 23 possibilities of writing these three numbers:

$$a + b + c, ab + c, a + bc, (a + b) \times c, a \times (b + c), a \times b + c, a + b \times c, ab \times c, a \times bc, a \times b \times c, abc, \\ a^{bc}, a^{b^c}, (a^b)^c, a^b \times c, a \times b^c, (a \times b)^c, (ab)^c, a^b + c, a + b^c, a^{b+c}, a^{b \times c}, \text{ and } (a + b)^c.$$

The expressions $(a^b)^c$ and $a^{b \times c}$ are the same. The expressions a^{bc} and a^{b^c} give very big values except $a = 1$.

Imagine if these letters increases from 3 to 4, 5, ... to 9, one may have millions of possibilities of writing these 9 letters either in increasing or in decreasing orders. The above explanation is only for addition, multiplication and brackets. If we allow more operations, such as subtraction, division, etc., these possibilities increases much more.

From first version to this, there is a gap of approximately one year. During this time, I came across, two historical books, [9, 10], where these authors specified only the representation of number 100 in different ways including much more operations, such as, factorial, decimal, square root etc.

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2. CRAZY SEQUENTIAL REPRESENTATION

This is the fifth version of previous works. Readers can see previous versions at [1, 2, 3, 4]. Here below are *crazy sequential representation* of natural numbers written in terms of 1 to 9 in increasing as well as decreasing orders. The first column represents the increasing order and the second represent the decreasing. Numbers with *subtraction* and/or *division* are written in *Italic form*.

Increasing order

$$\begin{aligned}
 0 &= 12 + 34 - 56 - 7 + 8 + 9. \\
 1 &= 1^{23456789}. \\
 2 &= 123 + 4 - 56 - 78 + 9. \\
 3 &= 123 - 45 - 6 - 78 + 9. \\
 4 &= 12 - 34 - 56 - 7 + 89. \\
 5 &= 12 - 34 + 5 - 67 + 89. \\
 6 &= 12 + 34 + 56 - 7 - 89. \\
 7 &= 1 + 23 - 4 + 56 - 78 + 9. \\
 8 &= 1 - 23 - 45 + 6 + 78 - 9. \\
 9 &= 1^{2345678} \times 9. \\
 10 &= 1^{2345678} + 9. \\
 11 &= 1 + 23 + 4 + 5 + 67 - 89. \\
 12 &= 123 + 45 - 67 - 89. \\
 13 &= 1 - 23 + 4 - 56 + 78 + 9. \\
 14 &= 12 - 3 - 45 + 67 - 8 - 9. \\
 15 &= 123 - 45 + 6 - 78 + 9. \\
 16 &= 1 - 2 + 34 + 5 + 67 - 89. \\
 17 &= 1^{234567} \times 8 + 9. \\
 18 &= 1^{234567} + 8 + 9. \\
 19 &= 12 + 34 - 5 + 67 - 89. \\
 20 &= 12 + 3 - 45 + 67 - 8 - 9. \\
 21 &= 1 - 23 - 45 + 6 - 7 + 89. \\
 22 &= 1 - 23 + 4 - 56 + 7 + 89. \\
 23 &= 1 + 2 - 3 + 45 + 67 - 89. \\
 24 &= 1^{23456} \times 7 + 8 + 9. \\
 25 &= 1^{23456} + 7 + 8 + 9. \\
 26 &= 12 - 3 + 4 - 56 + 78 - 9. \\
 27 &= 12 - 3 - 45 - 6 + 78 - 9. \\
 28 &= 12 + 3 - 4 - 5 - 67 + 89. \\
 29 &= 12 + 34 + 5 + 67 - 89. \\
 30 &= 1^{2345} \times 6 + 7 + 8 + 9. \\
 31 &= 1^{2345} + 6 + 7 + 8 + 9. \\
 32 &= 12 - 3 + 45 + 67 - 89. \\
 33 &= 12 + 34 + 56 - 78 + 9. \\
 34 &= 123 + 4 - 5 - 6 + 7 - 89. \\
 35 &= 1^{234} \times 5 + 6 + 7 + 8 + 9. \\
 36 &= 1^{234} + 5 + 6 + 7 + 8 + 9. \\
 37 &= 1 + 23 - 4 - 5 - 67 + 89. \\
 38 &= 12 + 3 + 45 + 67 - 89. \\
 39 &= 1^{23} \times 4 + 5 + 6 + 7 + 8 + 9. \\
 40 &= 1^{23} + 4 + 5 + 6 + 7 + 8 + 9. \\
 41 &= 12 - 34 - 5 + 67 - 8 + 9. \\
 42 &= 1^2 \times 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 43 &= 1^2 + 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 44 &= 1 \times 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 45 &= 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 46 &= 1 + 2 \times 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 47 &= 1 \times 2^3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 48 &= 1 + 2^3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 49 &= 1 \times 2 + 3 \times 4 + 5 + 6 + 7 + 8 + 9. \\
 50 &= 1 + 2 + 3 \times 4 + 5 + 6 + 7 + 8 + 9. \\
 51 &= 1^{23} + 4 \times 5 + 6 + 7 + 8 + 9. \\
 52 &= 12 - 3 - 45 + 6 - 7 + 89. \\
 53 &= 1^2 \times 3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
 54 &= 12 + 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
 55 &= 1 \times 2 + 3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
 56 &= 1 + 2 + 3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
 57 &= 1 + 2 \times 3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
 58 &= 1 \times 2^3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
 59 &= 1 \times 2 \times 3 \times 4 + 5 + 6 + 7 + 8 + 9. \\
 60 &= 1 + 2 \times 3 \times 4 + 5 + 6 + 7 + 8 + 9.
 \end{aligned}$$

Decreasing order

$$\begin{aligned}
 0 &= 98 - 7 - 6 - 54 - 32 + 1. \\
 1 &= 98 - 76 - 54 + 32 + 1. \\
 2 &= 9 + 87 - 65 + 4 - 32 - 1. \\
 3 &= 98 - 76 - 5 + 4 + 3 - 21. \\
 4 &= 98 - 7 - 65 - 43 + 21. \\
 5 &= 98 - 76 + 5 - 43 + 21. \\
 6 &= 98 - 7 - 65 + 4 - 3 - 21. \\
 7 &= 98 - 7 - 6 - 54 - 3 - 21. \\
 8 &= 9 - 8 + 76 - 5 - 43 - 21. \\
 9 &= 9 + 87 - 65 - 43 + 21. \\
 10 &= 98 - 7 + 6 - 54 - 32 - 1. \\
 11 &= 9 + 8 - 7 + 65 - 43 - 21. \\
 12 &= 987 - 654 - 321. \\
 13 &= 98 - 7 - 6 - 54 + 3 - 21. \\
 14 &= 98 + 7 - 6 - 54 - 32 + 1. \\
 15 &= 98 - 76 - 5 - 4 + 3 - 2 + 1. \\
 16 &= 98 - 7 - 6 - 5 - 43 - 21. \\
 17 &= 9 + 87 - 65 + 4 + 3 - 21. \\
 18 &= 98 + 7 - 65 - 43 + 21. \\
 19 &= 98 - 7 + 6 - 54 - 3 - 21. \\
 20 &= 98 + 7 - 65 + 4 - 3 - 21. \\
 21 &= 9 + 87 - 6 - 5 - 43 - 21. \\
 22 &= 9 - 87 + 65 + 4 + 32 - 1. \\
 23 &= 9 + 87 - 65 - 4 - 3 - 2 + 1. \\
 24 &= 98 + 7 + 6 - 54 - 32 - 1. \\
 25 &= 9 + 8 + 7 + 65 - 43 - 21. \\
 26 &= 98 - 7 - 6 + 5 - 43 - 21. \\
 27 &= 9 - 87 + 65 + 43 - 2 - 1. \\
 28 &= 98 - 7 + 6 - 5 - 43 - 21. \\
 29 &= 9 - 87 + 65 + 43 - 2 + 1. \\
 30 &= 98 + 7 - 6 - 5 - 43 - 21. \\
 31 &= 98 - 76 - 5 - 4 - 3 + 21. \\
 32 &= 98 - 7 - 65 + 4 + 3 - 2 + 1. \\
 33 &= 98 + 7 + 6 - 54 - 3 - 21. \\
 34 &= 9 + 8 + 76 + 5 - 43 - 21. \\
 35 &= 98 - 7 - 6 - 54 + 3 + 2 - 1. \\
 36 &= 98 - 7 - 6 - 5 - 43 - 2 + 1. \\
 37 &= 98 - 76 - 5 - 4 + 3 + 21. \\
 38 &= 98 - 7 - 6 - 5 - 43 + 2 - 1. \\
 39 &= 98 - 76 - 5 + 43 - 21. \\
 40 &= 98 - 7 - 65 - 4 - 3 + 21. \\
 41 &= 98 - 76 + 5 - 4 - 3 + 21. \\
 42 &= 98 + 7 + 6 - 5 - 43 - 21. \\
 43 &= 98 - 76 + 54 - 32 - 1. \\
 44 &= 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 \times 1. \\
 45 &= 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1. \\
 46 &= 9 + 8 + 7 + 6 + 5 + 4 + 3 \times 2 + 1. \\
 47 &= 98 - 76 + 5 - 4 + 3 + 21. \\
 48 &= 9 + 8 + 7 + 6 + 5 + 4 + 3^2 \times 1. \\
 49 &= 9 + 8 + 7 + 6 + 5 + 4 \times 3 + 2 \times 1. \\
 50 &= 9 + 8 + 7 + 6 + 5 + 4 \times 3 + 2 + 1. \\
 51 &= 9 + 87 - 65 - 4 + 3 + 21. \\
 52 &= 98 - 76 + 54 - 3 - 21. \\
 53 &= 9 + 87 - 65 + 43 - 21. \\
 54 &= 9 + 8 + 7 + 6 + (5 + 4 + 3) \times 2 \times 1. \\
 55 &= 9 + 8 + 7 + 6 + 5 \times 4 + 3 + 2 \times 1. \\
 56 &= 9 + 8 + 7 + 6 + 5 \times 4 + 3 + 2 + 1. \\
 57 &= 9 + 8 + 7 + 6 + 5 \times 4 + 3 \times 2 + 1. \\
 58 &= 98 - 7 - 6 - 5 - 43 + 21. \\
 59 &= 9 + 8 + 7 + 6 + 5 + 4 \times 3 \times 2 \times 1. \\
 60 &= 9 + 8 + 7 + 6 + 5 \times 4 + 3^2 + 1.
 \end{aligned}$$

Increasing order

$$\begin{aligned}
61 &= 1^2 \times 3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
62 &= 1 \times 23 + 4 + 5 + 6 + 7 + 8 + 9. \\
63 &= 1 + 23 + 4 + 5 + 6 + 7 + 8 + 9. \\
64 &= 1 + 2 + 3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
65 &= 12 + 3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
66 &= 1 \times 2^3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
67 &= 1 + 2^3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
68 &= 1 \times 2 + 3 \times 4 + 5 \times 6 + 7 + 8 + 9. \\
69 &= 1 + 2 + 3 \times 4 + 5 \times 6 + 7 + 8 + 9. \\
70 &= 1^2 + 34 + 5 + 6 + 7 + 8 + 9. \\
71 &= 1 \times 2 + 34 + 5 + 6 + 7 + 8 + 9. \\
72 &= 1 + 2 + 34 + 5 + 6 + 7 + 8 + 9. \\
73 &= 12 + 3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
74 &= 1 + 2 + 3 + 4 + 5 + 6 \times 7 + 8 + 9. \\
75 &= 12 \times 3 + 4 + 5 + 6 + 7 + 8 + 9. \\
76 &= 1 \times 2^3 + 4 + 5 + 6 \times 7 + 8 + 9. \\
77 &= 1^2 + 3 \times 4 + 5 + 6 \times 7 + 8 + 9. \\
78 &= 12 + 3 \times 4 + 5 \times 6 + 7 + 8 + 9. \\
79 &= 1 + 2 + 3 \times 4 + 5 + 6 \times 7 + 8 + 9. \\
80 &= 1 \times 2 + 3 + 45 + 6 + 7 + 8 + 9. \\
81 &= 1 + 2 + 3 + 45 + 6 + 7 + 8 + 9. \\
82 &= 1 + 2 \times 3 + 45 + 6 + 7 + 8 + 9. \\
83 &= 12 + 3 + 4 + 5 + 6 \times 7 + 8 + 9. \\
84 &= 1 \times 2 + 3 + 4 \times 5 + 6 \times 7 + 8 + 9. \\
85 &= 1 + 2 + 3 + 4 \times 5 + 6 \times 7 + 8 + 9. \\
86 &= 1 + 2 + 3 + 4 + 5 + 6 \times 7 \times 8 + 9. \\
87 &= 1 + 2 \times 3 + 4 + 5 + 6 \times 7 \times 8 + 9. \\
88 &= 12 + 3 \times 4 + 5 + 6 \times 7 + 8 + 9. \\
89 &= 1 \times 2 + 3 + 4 + 56 + 7 + 8 + 9. \\
90 &= 12 + 3 + 45 + 6 + 7 + 8 + 9. \\
91 &= 1 + 2 + 34 + 5 \times 6 + 7 + 8 + 9. \\
92 &= 1 + 23 + 4 + 5 + 6 \times 7 + 8 + 9. \\
93 &= 1 + 2 + 3 \times 4 \times 5 + 6 + 7 + 8 + 9. \\
94 &= 1 \times 2 + 3 \times 4 + 56 + 7 + 8 + 9. \\
95 &= 12 + 3 + 4 + 5 + 6 + 7 \times 8 + 9. \\
96 &= 1 \times 2 + 3 + 4 \times 5 + 6 + 7 \times 8 + 9. \\
97 &= 1 + 2 + 3 + 4 \times 5 + 6 + 7 \times 8 + 9. \\
98 &= 1 \times 23 + 45 + 6 + 7 + 8 + 9. \\
99 &= 1 + 2 + 3 + 4 + 5 + 67 + 8 + 9. \\
100 &= 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 \times 9. \\
101 &= 1 + 2 + 34 + 5 + 6 \times 7 + 8 + 9. \\
102 &= 12 + 3 \times 4 \times 5 + 6 + 7 + 8 + 9. \\
103 &= 1 \times 2 \times 34 + 5 + 6 + 7 + 8 + 9. \\
104 &= 1 + 23 + 4 + 5 + 6 + 7 \times 8 + 9. \\
105 &= 1 + 2 \times 3 \times 4 + 56 + 7 + 8 + 9. \\
106 &= 12 + 3 + 4 \times 5 + 6 + 7 \times 8 + 9. \\
107 &= 1 \times 23 + 4 + 56 + 7 + 8 + 9. \\
108 &= 1 + 2 + 3 + 4 + 5 + 6 + 78 + 9. \\
109 &= 1 + 2 \times 3 + 4 + 5 + 6 + 78 + 9. \\
110 &= 12 + 34 + 5 + 6 \times 7 + 8 + 9. \\
111 &= 12 \times 3 + 45 + 6 + 7 + 8 + 9. \\
112 &= 1 \times 2 + 3 \times 4 + 5 + 6 + 78 + 9. \\
113 &= 12 + 3 \times 4 + 5 + 67 + 8 + 9. \\
114 &= 1 + 2 \times 3 \times 4 + 5 + 67 + 8 + 9. \\
115 &= 1 + 23 + 4 \times 5 + 6 + 7 \times 8 + 9. \\
116 &= 1 \times 2 + 34 + 56 + 7 + 8 + 9. \\
117 &= 1 + 2 + 34 + 56 + 7 + 8 + 9. \\
118 &= 1 + 23 + 4 + 5 + 6 + 7 + 8 \times 9. \\
119 &= 1 + 2 + 3 + 4 \times 5 + 6 + 78 + 9. \\
120 &= 12 \times 3 + 4 + 56 + 7 + 8 + 9. \\
121 &= 1 \times 2 + 3 \times 4 + 5 + 6 + 7 + 89. \\
122 &= 1 + 2 + 3 \times 4 + 5 + 6 + 7 + 89. \\
123 &= 1 + 2 \times 3 \times 4 + 5 + 6 + 78 + 9. \\
124 &= 1 + 2 + 3 \times 4 + 5 \times 6 + 7 + 8 \times 9. \\
125 &= 1 \times 2 + 34 + 5 + 67 + 8 + 9. \\
126 &= 12 + 34 + 56 + 7 + 8 + 9. \\
127 &= 1 + 2 + 34 + 5 + 6 + 7 + 8 \times 9. \\
128 &= 1 + 2 + 3 + 4 \times 5 + 6 + 7 + 89. \\
129 &= 12 \times 3 + 4 + 5 + 67 + 8 + 9. \\
130 &= 1 \times 2 + 3 + 4 + 56 + 7 \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
61 &= 9 + 8 + 7 + (6 + 5 + 4 + 3) \times 2 + 1. \\
62 &= 98 + 7 - 65 + 43 - 21. \\
63 &= 9 + 8 + 7 + 6 + 5 + 4 + 3 + 21. \\
64 &= 9 + 8 + 7 + 6 \times 5 + 4 + 3 + 2 + 1. \\
65 &= 9 + 8 + 7 + 6 \times 5 + 4 + 3 \times 2 + 1. \\
66 &= 9 + 8 + 7 + 6 + (5 + 4 + 3) \times (2 + 1). \\
67 &= 9 + 8 + 7 + 6 \times 5 + 4 + 3^2 \times 1. \\
68 &= 9 + 8 + 7 + 6 + 5 + 4 \times 3 + 21. \\
69 &= 9 + 8 + 7 + 6 \times 5 + 4 \times 3 + 2 + 1. \\
70 &= 9 + 8 + 7 + (6 + 5 + 4 \times 3) \times 2 \times 1. \\
71 &= 9 + 8 + 7 + 6 + 5 + 4 + 32 \times 1. \\
72 &= 9 + 8 + 7 + 6 + 5 + 4 + 32 + 1. \\
73 &= 9 + 8 + 7 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
74 &= 9 + 8 + 7 \times 6 + 5 + 4 + 3 + 2 + 1. \\
75 &= 9 + 8 + 7 \times 6 + 5 + 4 + 3 \times 2 + 1. \\
76 &= 9 + 8 + 7 + 6 + 5 \times (4 + 3 + 2) + 1. \\
77 &= 9 + 8 + 7 \times 6 + 5 + 4 + 3^2 \times 1. \\
78 &= 9 + 8 + 7 \times 6 + 5 + 4 \times 3 + 2 \times 1. \\
79 &= 9 + 8 + 7 \times 6 + 5 + 4 \times 3 + 2 + 1. \\
80 &= 9 + 8 + 7 + 6 + 5 + 43 + 2 \times 1. \\
81 &= 9 + 8 + 7 + 6 + 5 + 43 + 2 + 1. \\
82 &= 9 + 8 + 7 + 6 \times 5 + 4 + 3 + 21. \\
83 &= 9 + 8 + 7 + 6 + 5 \times 4 + 32 + 1. \\
84 &= 9 + 8 + 7 \times 6 + 5 \times 4 + 3 + 2 \times 1. \\
85 &= 9 + 8 + 7 \times 6 + 5 \times 4 + 3 + 2 + 1. \\
86 &= 9 + 8 \times 7 + 6 + 5 + 4 + 3 + 2 + 1. \\
87 &= 9 + 8 \times 7 + 6 + 5 + 4 + 3 \times 2 + 1. \\
88 &= 9 + 8 + 7 \times 6 + 5 + 4 \times 3 \times 2 \times 1. \\
89 &= 9 + 8 + 7 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
90 &= 9 + 8 + 7 + 6 + 54 + 3 + 2 + 1. \\
91 &= 9 + 8 + 7 + 6 + 54 + 3 \times 2 + 1. \\
92 &= 9 + 8 + 7 \times 6 + 5 + 4 + 3 + 21. \\
93 &= 9 + 8 + 7 + 6 + 5 \times 4 \times 3 + 2 + 1. \\
94 &= 9 + 8 + 7 + 6 + 54 + 3^2 + 1. \\
95 &= 9 + 8 + (7 + 6) \times 5 + 4 + 3^2 \times 1. \\
96 &= 9 + 8 \times 7 + 6 + 5 \times 4 + 3 + 2 \times 1. \\
97 &= 9 + 8 \times 7 + 6 + 5 \times 4 + 3 + 2 + 1. \\
98 &= 9 + 8 + 7 + 65 + 4 + 3 + 2 \times 1. \\
99 &= 9 + 8 + 7 + 65 + 4 + 3 + 2 + 1. \\
100 &= 9 \times 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1. \\
101 &= 9 \times 8 + 7 + 6 + 5 + 4 + 3 \times 2 + 1. \\
102 &= 9 + 8 + 7 + 6 + 5 + 4^3 + 2 + 1. \\
103 &= 9 + 8 + 7 \times 6 + 5 \times 4 + 3 + 21. \\
104 &= 9 + 8 + 7 + 65 + 4 \times 3 + 2 + 1. \\
105 &= 9 + 8 \times 7 + 6 \times 5 + 4 + 3 + 2 + 1. \\
106 &= 9 + 8 \times 7 + 6 \times 5 + 4 + 3 \times 2 + 1. \\
107 &= 9 + 8 + 76 + 5 + 4 + 3 + 2 \times 1. \\
108 &= 9 + 8 + 76 + 5 + 4 + 3 + 2 + 1. \\
109 &= 9 + 8 + 76 + 5 + 4 + 3 \times 2 + 1. \\
110 &= 9 + 8 \times 7 + 6 \times 5 + 4 \times 3 + 2 + 1. \\
111 &= 9 \times 8 + 7 + 6 + 5 \times 4 + 3 + 2 + 1. \\
112 &= 9 \times 8 + 7 + 6 + 5 \times 4 + 3 \times 2 + 1. \\
113 &= 9 + 8 + 76 + 5 + 4 \times 3 + 2 + 1. \\
114 &= 9 + 8 + 7 + 65 + 4 \times 3 \times 2 + 1. \\
115 &= 9 \times 8 + 7 + 6 + 5 + 4 \times 3 \times 2 + 1. \\
116 &= 9 + 87 + 6 + 5 + 4 + 3 + 2 \times 1. \\
117 &= 9 + 87 + 6 + 5 + 4 + 3 + 2 + 1. \\
118 &= 9 + 87 + 6 + 5 + 4 + 3 \times 2 + 1. \\
119 &= 9 \times 8 + 7 + 6 \times 5 + 4 + 3 + 2 + 1. \\
120 &= 9 \times 8 + 7 + 6 \times 5 + 4 + 3 \times 2 + 1. \\
121 &= 9 + 8 + 7 \times 6 + 5 \times 4 \times 3 + 2 \times 1. \\
122 &= 9 + 87 + 6 + 5 + 4 \times 3 + 2 + 1. \\
123 &= 9 + 8 + 76 + 5 + 4 \times 3 \times 2 + 1. \\
124 &= 9 \times 8 + 7 + 6 \times 5 + 4 \times 3 + 2 + 1. \\
125 &= 98 + 7 + 6 + 5 + 4 + 3 + 2 \times 1. \\
126 &= 98 + 7 + 6 + 5 + 4 + 3 + 2 + 1. \\
127 &= 98 + 7 + 6 + 5 + 4 + 3 \times 2 + 1. \\
128 &= 9 + 87 + 6 + 5 \times 4 + 3 + 2 + 1. \\
129 &= 9 \times 8 + 7 \times 6 + 5 + 4 + 3 + 2 + 1. \\
130 &= 9 \times 8 + 7 \times 6 + 5 + 4 + 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$131 = 1 + 2 + 3 + 4 + 56 + 7 \times 8 + 9.$
 $132 = 1 + 2 \times 3 \times 4 + 5 + 6 + 7 + 89.$
 $133 = 1 \times 2 \times 3 \times 4 + 5 \times 6 + 7 + 8 \times 9.$
 $134 = 1 \times 2 + 34 + 5 + 6 + 78 + 9.$
 $135 = 12 + 34 + 5 + 67 + 8 + 9.$
 $136 = 12 + 34 + 5 + 6 + 7 + 8 \times 9.$
 $137 = 1 + 23 + 4 \times 5 + 6 + 78 + 9.$
 $138 = 12 \times 3 + 4 + 5 + 6 + 78 + 9.$
 $139 = 1 \times 23 + 45 + 6 + 7 \times 8 + 9.$
 $140 = 12 + 3 + 4 + 56 + 7 \times 8 + 9.$
 $141 = 1 + 2 + 3 \times 4 + 5 \times 6 + 7 + 89.$
 $142 = 1 + 2 \times 3 \times 4 + 5 \times 6 + 78 + 9.$
 $143 = 1 \times 2 + 3 + 45 + 6 + 78 + 9.$
 $144 = 12 + 34 + 5 + 6 + 78 + 9.$
 $145 = 12 + 3 + 45 + 6 + 7 + 8 \times 9.$
 $146 = 1 + 2 + 3 + 4 + 5 + 6 + 7 + 89.$
 $147 = 1 + 23 + 4 + 5 + 6 \times 7 + 8 \times 9.$
 $148 = 1 \times 2 \times 34 + 56 + 7 + 8 + 9.$
 $149 = 1 + 23 + 4 + 56 + 7 \times 8 + 9.$
 $150 = 1 + 2 + 3 \times 4 + 56 + 7 + 8 \times 9.$
 $151 = 1 + 2 + 3 \times 4 + 5 + 6 \times 7 + 89.$
 $152 = 1 \times 2 + 3 + 45 + 6 + 7 + 89.$
 $153 = 1 + 23 + 45 + 67 + 8 + 9.$
 $154 = 1 + 2 \times 3 + 4 + 56 + 78 + 9.$
 $155 = 12 + 3 + 4 + 5 + 6 \times 7 + 89.$
 $156 = 12 + 3 \times 4 \times 5 + 67 + 8 + 9.$
 $157 = 1 \times 2 + 3 \times 4 + 56 + 78 + 9.$
 $158 = 1 + 2 \times 34 + 5 + 67 + 8 + 9.$
 $159 = 1 + 2 \times 34 + 5 + 6 + 7 + 8 \times 9.$
 $160 = 12 + 3 \times 4 + 5 + 6 \times 7 + 89.$
 $161 = 1 \times 2 + 3 + 4 + 56 + 7 + 89.$
 $162 = 123 + 4 + 5 + 6 + 7 + 8 + 9.$
 $163 = 12 + 34 + 5 \times 6 + 78 + 9.$
 $164 = 1 + 23 + 4 + 5 + 6 \times 7 + 89.$
 $165 = 12 \times 3 + 45 + 67 + 8 + 9.$
 $166 = 1 \times 2 \times 34 + 5 + 6 + 78 + 9.$
 $167 = 1 + 2 + 3 \times 4 + 56 + 7 + 89.$
 $168 = 1 + 2 + 3 \times 45 + 6 + 7 + 8 + 9.$
 $169 = 1 + 23 \times 4 + 5 + 6 + 7 \times 8 + 9.$
 $170 = 1 \times 23 + 4 + 56 + 78 + 9.$
 $171 = 1 + 23 + 45 + 6 + 7 + 89.$
 $172 = 1 + 23 + 4 + 5 + 67 + 8 \times 9.$
 $173 = 123 + 4 \times 5 + 6 + 7 + 8 + 9.$
 $174 = 12 \times 3 + 45 + 6 + 78 + 9.$
 $175 = 1 \times 2 \times 34 + 5 + 6 + 7 + 89.$
 $176 = 12 + 3 \times 4 + 56 + 7 + 89.$
 $177 = 12 + 3 \times 45 + 6 + 7 + 8 + 9.$
 $178 = 1 + 2 \times 34 + 5 \times 6 + 7 + 8 \times 9.$
 $179 = 1 \times 2 + 34 + 56 + 78 + 9.$
 $180 = 1 + 2 + 34 + 56 + 78 + 9.$
 $181 = 123 + 4 + 5 \times 6 + 7 + 8 + 9.$
 $182 = 1 + 2 + 3 + 4 \times 5 + 67 + 89.$
 $183 = 12 \times 3 + 4 + 56 + 78 + 9.$
 $184 = 12 \times 3 + 4 + 5 + 67 + 8 \times 9.$
 $185 = 12 + 3 \times 4 + 5 + 67 + 89.$
 $186 = 1 + 2 \times 3 \times 4 + 5 + 67 + 89.$
 $187 = 1 \times 2 \times 34 + 5 + 6 \times 7 + 8 \times 9.$
 $188 = 1 \times 2 + 34 + 56 + 7 + 89.$
 $189 = 1 + 2 + 34 + 56 + 7 + 89.$
 $190 = 1 + 2 + 3 + 45 + 67 + 8 \times 9.$
 $191 = 1 + 23 \times 4 + 5 + 6 + 78 + 9.$
 $192 = 12 \times 3 + 4 + 56 + 7 + 89.$
 $193 = 1 \times 2 + 3 \times 4 \times 5 + 6 \times 7 + 89.$
 $194 = 1 + 2 + 3 \times 4 \times 5 + 6 \times 7 + 89.$
 $195 = 1 + 2 \times 34 + 5 \times 6 + 7 + 89.$
 $196 = 1 \times 2 + 3 \times 45 + 6 \times 7 + 8 + 9.$
 $197 = 1 \times 2 + 34 + 5 + 67 + 89.$
 $198 = 12 + 34 + 56 + 7 + 89.$
 $199 = 12 + 3 + 45 + 67 + 8 \times 9.$
 $200 = 1 + 23 \times 4 + 5 + 6 + 7 + 89.$

Decreasing order

$131 = 98 + 7 + 6 + 5 + 4 \times 3 + 2 + 1.$
 $132 = 9 + 8 \times 7 + 6 + 54 + 3 \times 2 + 1.$
 $133 = 9 \times 8 + 7 \times 6 + 5 + 4 \times 3 + 2 \times 1.$
 $134 = 9 \times 8 + 7 \times 6 + 5 + 4 \times 3 + 2 + 1.$
 $135 = 9 + 8 + 7 + 65 + 43 + 2 + 1.$
 $136 = 9 \times 8 + 7 + 6 + 5 + 43 + 2 + 1.$
 $137 = 98 + 7 + 6 + 5 \times 4 + 3 + 2 + 1.$
 $138 = 98 + 7 + 6 + 5 \times 4 + 3 \times 2 + 1.$
 $139 = 9 + 8 \times 7 + 65 + 4 + 3 + 2 \times 1.$
 $140 = 9 \times 8 + 7 \times 6 + 5 \times 4 + 3 + 2 + 1.$
 $141 = 9 + 87 + 6 \times 5 + 4 \times 3 + 2 + 1.$
 $142 = 9 \times 8 + 7 + 6 \times 5 + 4 \times 3 + 21.$
 $143 = 9 \times 8 + 7 \times 6 + 5 + 4 \times 3 \times 2 \times 1.$
 $144 = 98 + 7 + 6 + 5 + 4 + 3 + 21.$
 $145 = 98 + 7 + 6 \times 5 + 4 + 3 + 2 + 1.$
 $146 = 9 \times 8 + 7 + 6 + 54 + 3 \times 2 + 1.$
 $147 = 9 \times 8 + 7 \times 6 + 5 + 4 + 3 + 21.$
 $148 = 9 \times 8 + 7 + 6 + 5 \times 4 \times 3 + 2 + 1.$
 $149 = 9 + 8 \times 7 + 6 + 54 + 3 + 21.$
 $150 = 9 + 8 + 7 + 6 \times 5 \times 4 + 3 + 2 + 1.$
 $151 = 9 + 8 + 7 + 6 \times 5 \times 4 + 3 \times 2 + 1.$
 $152 = 9 + 8 + 76 + 54 + 3 + 2 \times 1.$
 $153 = 9 + 8 + 76 + 54 + 3 + 2 + 1.$
 $154 = 9 \times 8 + 7 + 65 + 4 + 3 + 2 + 1.$
 $155 = 9 \times 8 + 7 + 6 \times 5 + 43 + 2 + 1.$
 $156 = 98 + 7 \times 6 + 5 + 4 + 3 \times 2 + 1.$
 $157 = 9 + 8 \times 7 + 6 + 54 + 32 \times 1.$
 $158 = 9 + 8 \times 7 + 65 + 4 + 3 + 21.$
 $159 = 9 \times 8 + 7 + 65 + 4 \times 3 + 2 + 1.$
 $160 = 98 + 7 \times 6 + 5 + 4 \times 3 + 2 + 1.$
 $161 = 9 + 87 + 6 + 54 + 3 + 2 \times 1.$
 $162 = 9 + 87 + 6 + 54 + 3 + 2 + 1.$
 $163 = 9 \times 8 + 76 + 5 + 4 + 3 + 2 + 1.$
 $164 = 9 \times 8 + 76 + 5 + 4 + 3 \times 2 + 1.$
 $165 = 9 \times 8 + 7 \times 6 + 5 + 43 + 2 + 1.$
 $166 = 98 + 7 \times 6 + 5 \times 4 + 3 + 2 + 1.$
 $167 = 98 + 7 \times 6 + 5 \times 4 + 3 \times 2 + 1.$
 $168 = 9 \times 8 + 76 + 5 + 4 \times 3 + 2 + 1.$
 $169 = 9 \times 8 + 7 + 65 + 4 \times 3 \times 2 + 1.$
 $170 = 98 + 7 \times 6 + 5 + 4 \times 3 \times 2 + 1.$
 $171 = 9 + 87 + 65 + 4 + 3 + 2 + 1.$
 $172 = 9 + 87 + 65 + 4 + 3 \times 2 + 1.$
 $173 = 98 + 7 \times 6 + 5 + 4 + 3 + 21.$
 $174 = 9 \times 8 + 76 + 5 \times 4 + 3 + 2 + 1.$
 $175 = 9 \times 8 + 76 + 5 \times 4 + 3 \times 2 + 1.$
 $176 = 9 + 8 \times 7 + 65 + 43 + 2 + 1.$
 $177 = 9 \times 8 + 7 \times 6 + 5 \times 4 \times 3 + 2 + 1.$
 $178 = 9 \times 8 + 76 + 5 + 4 \times 3 \times 2 + 1.$
 $179 = 9 + 8 + 76 + 54 + 32 \times 1.$
 $180 = 98 + 7 + 65 + 4 + 3 + 2 + 1.$
 $181 = 98 + 7 + 6 \times 5 + 43 + 2 + 1.$
 $182 = 98 + 7 \times 6 + 5 + 4 + 32 + 1.$
 $183 = 98 + 7 + 6 + 5 + 4 + 3 \times 21.$
 $184 = 98 + 7 \times 6 + 5 \times 4 + 3 + 21.$
 $185 = 98 + 7 + 65 + 4 \times 3 + 2 + 1.$
 $186 = 9 + 87 + 65 + 4 \times 3 \times 2 + 1.$
 $187 = (9 + 8 + 7 + 6) \times 5 + 4 + 32 + 1.$
 $188 = 98 + 76 + 5 + 4 + 3 + 2 \times 1.$
 $189 = 98 + 76 + 5 + 4 + 3 + 2 + 1.$
 $190 = 98 + 76 + 5 + 4 + 3 \times 2 + 1.$
 $191 = 98 + 7 \times 6 + 5 + 43 + 2 + 1.$
 $192 = 9 \times 8 + 7 \times 6 + 54 + 3 + 21.$
 $193 = 98 + 76 + 5 + 4 \times 3 + 2 \times 1.$
 $194 = 98 + 76 + 5 + 4 \times 3 + 2 + 1.$
 $195 = 9 + 8 + 7 + 6 + 54 \times 3 + 2 + 1.$
 $196 = 9 + 8 \times 7 + 65 + 4^3 + 2 \times 1.$
 $197 = 9 + 87 + 65 + 4 + 32 \times 1.$
 $198 = 98 + 7 + 65 + 4 + 3 + 21.$
 $199 = 9 \times 8 + 76 + 5 + 43 + 2 + 1.$
 $200 = 98 + 7 \times 6 + 54 + 3 + 2 + 1.$

Increasing order

$$\begin{aligned}
201 &= 12 \times 3 + 4 + 5 + 67 + 89. \\
202 &= 123 + 4 \times 5 + 6 \times 7 + 8 + 9. \\
203 &= 123 + 4 + 5 + 6 + 7 \times 8 + 9. \\
204 &= 1 + 2 \times 34 + 56 + 7 \times 8 + 9. \\
205 &= 1 + 2 \times 3 \times 4 \times 5 + 67 + 8 + 9. \\
206 &= 1 \times 2 + 3 + 45 + 67 + 89. \\
207 &= 1 + 2 + 3 + 45 + 67 + 89. \\
208 &= 1 + 2 \times 3 + 45 + 67 + 89. \\
209 &= 1 \times 23 \times 4 + 5 \times 6 + 78 + 9. \\
210 &= 1 + 23 \times 4 + 5 \times 6 + 78 + 9. \\
211 &= 1 \times 2 \times 34 + 56 + 78 + 9. \\
212 &= 1 + 2 \times 34 + 56 + 78 + 9. \\
213 &= 1 + 2 \times 34 + 5 + 67 + 8 \times 9. \\
214 &= 123 + 4 \times 5 + 6 + 7 \times 8 + 9. \\
215 &= 1 \times 2^3 + 4 \times 5 \times 6 + 78 + 9. \\
216 &= 12 + 3 + 45 + 67 + 89. \\
217 &= 123 + 4 + 5 + 6 + 7 + 8 \times 9. \\
218 &= 12 + 3 \times 45 + 6 + 7 \times 8 + 9. \\
219 &= 1 + 2 + 3 \times 4 \times 5 + 67 + 89. \\
220 &= 1 \times 2 \times 34 + 56 + 7 + 89. \\
221 &= 1 + 2 \times 34 + 56 + 7 + 89. \\
222 &= 1 + 2 + 3 \times 45 + 67 + 8 + 9. \\
223 &= 1 + 2 \times 3 \times 4 \times 5 + 6 + 7 + 89. \\
224 &= 1 \times 23 + 45 + 67 + 89. \\
225 &= 1 + 23 + 45 + 67 + 89. \\
226 &= 1 \times 2 + 3^4 + 56 + 78 + 9. \\
227 &= 123 + 4 \times 5 + 67 + 8 + 9. \\
228 &= 1 \times 23 \times 4 + 5 + 6 \times 7 + 89. \\
229 &= 1 \times 2 \times 34 + 5 + 67 + 89. \\
230 &= 1 + 2 \times 34 + 5 + 67 + 89. \\
231 &= 12 + 3 \times 45 + 67 + 8 + 9. \\
232 &= 12 + 3 \times 45 + 6 + 7 + 8 \times 9. \\
233 &= 12 \times 3 \times 4 + 5 + 67 + 8 + 9. \\
234 &= 123 + 4 + 5 + 6 + 7 + 89. \\
235 &= 1 \times 23 \times 4 + 56 + 78 + 9. \\
236 &= 1 + 23 \times 4 + 56 + 78 + 9. \\
237 &= 12 \times 3 + 45 + 67 + 89. \\
238 &= 1 + 2 \times 3 + 4 + 5 \times 6 \times 7 + 8 + 9. \\
239 &= 123 + 45 + 6 + 7 \times 8 + 9. \\
240 &= 1 + 2 + 3 \times 45 + 6 + 7 + 89. \\
241 &= 12 + 34 \times 5 + 6 \times 7 + 8 + 9. \\
242 &= 12 \times 3 \times 4 + 5 + 6 + 78 + 9. \\
243 &= 12 \times 3 + 4 \times 5 \times 6 + 78 + 9. \\
244 &= 123 + 4 + 5 \times 6 + 78 + 9. \\
245 &= 123 + 4 \times 5 + 6 + 7 + 89. \\
246 &= 123 + 4 + 5 + 6 \times 7 + 8 \times 9. \\
247 &= 12 + 3^4 + 5 \times (6 + 7) + 89. \\
248 &= 123 + 4 + 56 + 7 \times 8 + 9. \\
249 &= 12 + 3 \times 45 + 6 + 7 + 89. \\
250 &= 1^2 + 3 \times 45 + 6 \times 7 + 8 \times 9. \\
251 &= 12 \times 3 \times 4 + 5 + 6 + 7 + 89. \\
252 &= 123 + 45 + 67 + 8 + 9. \\
253 &= 123 + 4 + 5 \times 6 + 7 + 89. \\
254 &= 1 + 23 \times 4 + 5 + 67 + 89. \\
255 &= 1 + 2 \times 3 + 4 \times 56 + 7 + 8 + 9. \\
256 &= 1 \times 2 + 34 \times 5 + 67 + 8 + 9. \\
257 &= 1 + 2 + 34 \times 5 + 67 + 8 + 9. \\
258 &= 1 + 2 + 34 \times 5 + 6 + 7 + 8 \times 9. \\
259 &= 1 \times 2 \times 3 \times 4 \times 5 + 67 + 8 \times 9. \\
260 &= 1 + 2 \times 3 \times 4 \times 5 + 67 + 8 \times 9. \\
261 &= 123 + 45 + 6 + 78 + 9. \\
262 &= 123 + 4 + 56 + 7 + 8 \times 9. \\
263 &= 12 + 3 + 4 \times 56 + 7 + 8 + 9. \\
264 &= 1 + 2 + 34 + 5 \times 6 \times 7 + 8 + 9. \\
265 &= 1 \times 2 + 34 \times 5 + 6 + 78 + 9. \\
266 &= 12 + 34 \times 5 + 67 + 8 + 9. \\
267 &= 123 + 4 \times 5 \times 6 + 7 + 8 + 9. \\
268 &= 1 \times 2 + 3 \times 45 + 6 \times 7 + 89. \\
269 &= 1 + 2 + 3 \times 45 + 6 \times 7 + 89. \\
270 &= 123 + 4 + 56 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
201 &= 98 + 76 + 5 \times 4 + 3 \times 2 + 1. \\
202 &= 98 + 7 \times 6 + 5 \times 4 \times 3 + 2 \times 1. \\
203 &= 98 + 76 + 5 + 4 \times 3 \times 2 \times 1. \\
204 &= 9 \times 8 + 7 + 6 \times 5 \times 4 + 3 + 2 \times 1. \\
205 &= 9 \times 8 + 7 + 6 \times 5 \times 4 + 3 + 2 + 1. \\
206 &= 9 \times 8 + 7 + 6 + 5 \times 4 \times 3 \times 2 + 1. \\
207 &= 9 + 87 + 65 + 43 + 2 + 1. \\
208 &= 9 \times 8 + 76 + 54 + 3 + 2 + 1. \\
209 &= 9 \times 8 + 76 + 54 + 3 \times 2 + 1. \\
210 &= 9 \times 8 + 76 + 5 \times 4 \times 3 + 2 \times 1. \\
211 &= 9 \times 8 + 76 + 5 \times 4 \times 3 + 2 + 1. \\
212 &= 9 \times 8 + 76 + 54 + 3^2 + 1. \\
213 &= 9 + 8 + 76 + 5 \times 4 \times 3 \times 2 \times 1. \\
214 &= 9 + 8 + 76 + 5 \times 4 \times 3 \times 2 + 1. \\
215 &= 98 + 7 + 65 + 43 + 2 \times 1. \\
216 &= 98 + 7 + 65 + 43 + 2 + 1. \\
217 &= 9 \times 8 + 76 + 5 + 43 + 21. \\
218 &= 98 + 76 + 5 \times 4 + 3 + 21. \\
219 &= 9 + 87 + 6 + 54 + 3 \times 21. \\
220 &= 9 \times 8 + 76 + 5 + 4 + 3 \times 21. \\
221 &= 9 + 87 + 6 \times 5 \times 4 + 3 + 2 \times 1. \\
222 &= 9 + 87 + 6 \times 5 \times 4 + 3 + 2 + 1. \\
223 &= 9 + 87 + 6 \times 5 \times 4 + 3 \times 2 + 1. \\
224 &= 9 + 8 + 7 \times 6 + 54 \times 3 + 2 + 1. \\
225 &= 98 + 76 + 5 + 43 + 2 + 1. \\
226 &= 9 \times 8 + 76 + 54 + 3 + 21. \\
227 &= 98 + 76 + 5 \times 4 + 32 + 1. \\
228 &= 9 + 87 + 65 + 4 + 3 \times 21. \\
229 &= 9 \times 8 + 76 + 5 \times 4 \times 3 + 21. \\
230 &= 9 \times 8 + 7 + 65 + 43 \times 2 \times 1. \\
231 &= 98 + 7 + 6 \times 5 \times 4 + 3 + 2 + 1. \\
232 &= 98 + 7 + 6 \times 5 \times 4 + 3 \times 2 + 1. \\
233 &= 98 + 76 + 54 + 3 + 2 \times 1. \\
234 &= 98 + 76 + 54 + 3 + 2 + 1. \\
235 &= 98 + 76 + 54 + 3 \times 2 + 1. \\
236 &= 9 + 8 \times 7 + 6 + 54 \times 3 + 2 + 1. \\
237 &= 98 + 76 + 5 \times 4 \times 3 + 2 + 1. \\
238 &= 9 + 8 + 7 \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
239 &= 9 \times 8 + 76 + 5 + 43 \times 2 \times 1. \\
240 &= 9 + 87 + 6 \times 5 \times 4 + 3 + 21. \\
241 &= 9 + 8 + 7 \times 6 \times 5 + 4 \times 3 + 2 \times 1. \\
242 &= 9 + 8 + 7 \times 6 \times 5 + 4 \times 3 + 2 + 1. \\
243 &= 98 + 76 + 5 + 43 + 21. \\
244 &= 98 + 7 + 6 + 5 + 4 \times 32 \times 1. \\
245 &= 98 + 7 + 6 + 5 + 4 \times 32 + 1. \\
246 &= 98 + 76 + 5 + 4 + 3 \times 21. \\
247 &= 9 + 87 + 65 + 43 \times 2 \times 1. \\
248 &= 9 + 8 + 7 + 6 + 5 \times 43 + 2 + 1. \\
249 &= 98 + 7 + 6 \times 5 \times 4 + 3 + 21. \\
250 &= 9 \times 8 + 7 + 6 + 54 \times 3 + 2 + 1. \\
251 &= 9 + 8 + 7 \times 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
252 &= 98 + 76 + 54 + 3 + 21. \\
253 &= 9 \times (8 + 7 + 6) + 54 + 3^2 + 1. \\
254 &= 9 + 8 \times 7 + 6 + 54 \times 3 + 21. \\
255 &= 9 + 8 + 7 \times 6 \times 5 + 4 + 3 + 21. \\
256 &= 98 + 7 + 65 + 43 \times 2 \times 1. \\
257 &= 9 + 8 + 76 + 54 \times 3 + 2 \times 1. \\
258 &= 9 + 8 + 76 + 54 \times 3 + 2 + 1. \\
259 &= 9 + 8 \times 7 + 65 + 4 \times 32 + 1. \\
260 &= 98 + 7 \times 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
261 &= 98 + 76 + 54 + 32 + 1. \\
262 &= 9 \times 8 + 7 + 6 \times 5 \times 4 + 3 \times 21. \\
263 &= 9 + 8 + 7 \times 6 \times 5 + 4 + 32 \times 1. \\
264 &= 9 + 8 + 7 \times 6 \times 5 + 4 + 32 + 1. \\
265 &= 98 + 76 + 5 + 43 \times 2 \times 1. \\
266 &= 9 + 87 + 6 + 54 \times 3 + 2 \times 1. \\
267 &= 9 + 87 + 6 + 54 \times 3 + 2 + 1. \\
268 &= 9 \times 8 + 76 + 5 \times 4 \times 3 \times 2 \times 1. \\
269 &= 9 \times 8 + 76 + 5 \times 4 \times 3 \times 2 + 1. \\
270 &= 98 + 7 + 6 \times (5 + 4) \times 3 + 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
271 &= 123 + 4 + 5 + 67 + 8 \times 9. \\
272 &= 1 + 23 + 4 \times 56 + 7 + 8 + 9. \\
273 &= 12 + 34 + 5 \times 6 \times 7 + 8 + 9. \\
274 &= 1 \times 2 + 34 \times 5 + 6 + 7 + 89. \\
275 &= 12 + 34 \times 5 + 6 + 78 + 9. \\
276 &= 1 \times 2 + 3 \times 45 + 67 + 8 \times 9. \\
277 &= 1 + 2 + 3 \times 45 + 67 + 8 \times 9. \\
278 &= 12 + 3 \times 45 + 6 \times 7 + 89. \\
279 &= 123 + 4 + 56 + 7 + 89. \\
280 &= 12 \times 3 \times 4 + 5 + 6 \times 7 + 89. \\
281 &= 1 \times 2 \times 3^4 + 5 + 6 \times 7 + 8 \times 9. \\
282 &= 123 + 4 \times 5 + 67 + 8 \times 9. \\
283 &= 1 \times 2 \times 3^4 + 56 + 7 \times 8 + 9. \\
284 &= 12 + 34 \times 5 + 6 + 7 + 89. \\
285 &= 1^2 + 34 \times 5 + 6 \times 7 + 8 \times 9. \\
286 &= 12 + 3 \times 45 + 67 + 8 \times 9. \\
287 &= 12 \times 3 \times 4 + 56 + 78 + 9. \\
288 &= 123 + 4 + 5 + 67 + 89. \\
289 &= 1 + 234 + 5 \times 6 + 7 + 8 + 9. \\
290 &= 1^2 + 3 + 4 + 5 \times 6 \times 7 + 8 \times 9. \\
291 &= 1 \times 2 + 3 + 4 + 5 \times 6 \times 7 + 8 \times 9. \\
292 &= 1 + 2 \times 3 + 4 + 56 \times 7 + 89. \\
293 &= 1 \times 2 + 3 \times 45 + 67 + 89. \\
294 &= 1 + 2 + 3 \times 45 + 67 + 89. \\
295 &= 1 + 2 + 3 + 4 \times 56 + 7 \times 8 + 9. \\
296 &= 12 \times 3 \times 4 + 56 + 7 + 89. \\
297 &= 1 + 2 + 3 \times 4 + 5 \times 6 \times 7 + 8 \times 9. \\
298 &= 1 \times 234 + 5 + 6 \times 7 + 8 + 9. \\
299 &= 123 + 4 \times 5 + 67 + 89. \\
300 &= 1 + 2 + 3 + 45 \times 6 + 7 + 8 + 9. \\
301 &= 1 + 2 \times 3 \times 45 + 6 + 7 + 8 + 9. \\
302 &= 1^2 + 34 \times 5 + 6 \times 7 + 89. \\
303 &= 12 + 3 \times 45 + 67 + 89. \\
304 &= 1 + 2 + 34 \times 5 + 6 \times 7 + 89. \\
305 &= 12 \times 3 \times 4 + 5 + 67 + 89. \\
306 &= 12 + 3 \times 4 + 5 \times 6 \times 7 + 8 \times 9. \\
307 &= 123 + 45 + 67 + 8 \times 9. \\
308 &= 123 + 4 \times 5 \times 6 + 7 + 8 + 9. \\
309 &= 12 + 3 + 45 \times 6 + 7 + 8 + 9. \\
310 &= 1 + 23 + 4 + 5 \times 6 \times 7 + 8 \times 9. \\
311 &= 1 + 234 + 5 + 6 + 7 \times 8 + 9. \\
312 &= 12 + 34 \times 5 + 6 + 7 + 8 + 9. \\
313 &= 12 + 34 \times 5 + 6 \times 7 + 89. \\
314 &= 1 \times 234 + 56 + 7 + 8 + 9. \\
315 &= 1 + 234 + 56 + 7 + 8 + 9. \\
316 &= 1 \times 2 + 3 + 4 \times 56 + 78 + 9. \\
317 &= 1 + 2 + 3 + 4 \times 56 + 78 + 9. \\
318 &= 1 + 23 + 45 \times 6 + 7 + 8 + 9. \\
319 &= 1 \times 23 \times 4 + 5 \times 6 \times 7 + 8 + 9. \\
320 &= 1 + 23 \times 4 + 5 \times 6 \times 7 + 8 + 9. \\
321 &= 12 + 34 \times 5 + 67 + 8 \times 9. \\
322 &= 123 + 4 \times 5 \times 6 + 7 + 8 \times 9. \\
323 &= 1 \times 234 + 5 + 67 + 8 + 9. \\
324 &= 123 + 45 + 67 + 89. \\
325 &= 1 + 234 + 5 + 6 + 7 + 8 \times 9. \\
326 &= 12 + 3 + 4 \times 56 + 78 + 9. \\
327 &= 1 + 23 + 4 + 5 \times 6 \times 7 + 89. \\
328 &= 1 \times 2 + 34 \times 5 + 67 + 89. \\
329 &= 1 + 2 + 34 \times 5 + 67 + 89. \\
330 &= 1 + 234 + 5 \times 6 + 7 \times 8 + 9. \\
331 &= 1 \times 2^3 \times 4 + 5 \times 6 \times 7 + 89. \\
332 &= 1 \times 234 + 5 + 6 + 78 + 9. \\
333 &= 1 + 234 + 5 + 6 + 78 + 9. \\
334 &= (1 \times 2 \times 3 \times 4 + 5 + 6) \times 7 + 89. \\
335 &= 12 + 3 + 4 \times 56 + 7 + 89. \\
336 &= 1 + 2 + 34 + 5 \times 6 \times 7 + 89. \\
337 &= 1 + (2 + 34) \times 5 + 67 + 89. \\
338 &= 12 + 34 \times 5 + 67 + 89. \\
339 &= 123 + 4 \times 5 \times 6 + 7 + 89. \\
340 &= 1 \times 2 + 3 + 45 \times 6 + 7 \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
271 &= (9 + 8) \times 7 + 65 + 43 \times 2 + 1. \\
272 &= 9 \times 8 + 7 + 65 + 4 \times 32 \times 1. \\
273 &= 9 + 8 + 7 \times 6 \times 5 + 43 + 2 + 1. \\
274 &= 98 + 7 \times 6 + 5 + 4 \times 32 + 1. \\
275 &= 98 + 7 + 6 + 54 \times 3 + 2 \times 1. \\
276 &= 98 + 7 + 6 + 54 \times 3 + 2 + 1. \\
277 &= 9 + 8 + 7 \times 6 + 5 \times 43 + 2 + 1. \\
278 &= 9 \times 8 + 7 \times 6 + 54 \times 3 + 2 \times 1. \\
279 &= 9 \times 8 + 7 \times 6 + 54 \times 3 + 2 + 1. \\
280 &= 98 + 7 \times 6 + 5 \times (4 + 3 + 21). \\
281 &= 9 \times 8 + 76 + 5 + 4 \times 32 \times 1. \\
282 &= 9 \times 8 + 76 + 5 + 4 \times 32 + 1. \\
283 &= 9 + 87 + 6 + 5 \times 4 \times 3^2 + 1. \\
284 &= (9 + 8) \times (7 + 6) + 5 \times 4 \times 3 + 2 + 1. \\
285 &= 9 + 87 + 6 + 54 \times 3 + 21. \\
286 &= 98 + 7 \times (6 + 5 \times 4) + 3 + 2 + 1. \\
287 &= 9 + 8 + 7 + 6 + 5 + 4 \times 3 \times 21. \\
288 &= 98 + 7 + 6 \times 5 \times 4 + 3 \times 21. \\
289 &= 98 + 7 + 65 \times 4 + 3 + 21. \\
290 &= 9 + 8 + 7 + 65 \times 4 + 3 + 2 + 1. \\
291 &= 9 + 8 + 7 + 65 \times 4 + 3 \times 2 + 1. \\
292 &= 9 \times 8 + 7 \times 6 \times 5 + 4 + 3 + 2 + 1. \\
293 &= 9 \times 8 + 7 \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
294 &= 98 + 76 + 5 \times 4 \times 3 \times 2 \times 1. \\
295 &= 98 + 76 + 5 \times 4 \times 3 \times 2 + 1. \\
296 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 3 + 2 \times 1. \\
297 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 3 + 2 + 1. \\
298 &= 98 + 7 + 65 + 4 \times 32 \times 1. \\
299 &= 98 + 7 + 65 + 4 \times 32 + 1. \\
300 &= 9 + 87 + (6 \times 5 + 4) \times 3 \times 2 \times 1. \\
301 &= 9 + 8 + 7 + 6 + 54 \times (3 + 2) + 1. \\
302 &= 9 \times 8 + 7 + 6 + 5 \times 43 + 2 \times 1. \\
303 &= 9 \times 8 + 7 + 6 + 5 \times 43 + 2 + 1. \\
304 &= 98 + 7 \times 6 + 54 \times 3 + 2 \times 1. \\
305 &= 98 + 7 \times 6 + 54 \times 3 + 2 + 1. \\
306 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
307 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
308 &= 9 + 8 + 7 + 65 \times 4 + 3 + 21. \\
309 &= 9 + 87 + 6 \times 5 \times (4 + 3) + 2 + 1. \\
310 &= 9 \times 8 + 7 \times 6 \times 5 + 4 + 3 + 21. \\
311 &= 9 + 8 + 76 + 5 \times 43 + 2 + 1. \\
312 &= 9 \times 8 + 76 + 54 \times 3 + 2 \times 1. \\
313 &= 9 \times 8 + 76 + 54 \times 3 + 2 + 1. \\
314 &= 98 + 76 + 5 \times 4 \times (3 \times 2 + 1). \\
315 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 3 + 21. \\
316 &= 9 + 8 + 7 + 65 \times 4 + 32 \times 1. \\
317 &= 98 + 7 \times 6 \times 5 + 4 + 3 + 2 \times 1. \\
318 &= 98 + 7 \times 6 \times 5 + 4 + 3 + 2 + 1. \\
319 &= 98 + 7 \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
320 &= 9 + 87 + 6 + 5 \times 43 + 2 + 1. \\
321 &= 9 \times 8 + 7 + 6 + 5 \times 43 + 21. \\
322 &= 98 + 7 \times 6 \times 5 + 4 \times 3 + 2 \times 1. \\
323 &= 98 + 7 \times 6 \times 5 + 4 \times 3 + 2 + 1. \\
324 &= 9 \times (8 + 7) + 6 + 54 \times 3 + 21. \\
325 &= 98 + 7 \times 6 + 5 \times (4 + 32 + 1). \\
326 &= 98 + 76 + 5 + (4 + 3) \times 21. \\
327 &= 9 \times 8 + 7 \times 6 \times 5 + 43 + 2 \times 1. \\
328 &= 9 \times 8 + 7 \times 6 \times 5 + 43 + 2 + 1. \\
329 &= 98 + 7 + 6 + 5 \times 43 + 2 + 1. \\
330 &= 9 + 8 \times 7 + 65 \times 4 + 3 + 2 \times 1. \\
331 &= 9 + 8 \times 7 + 65 \times 4 + 3 \times 2 + 1. \\
332 &= 9 + 8 \times 7 + 65 \times 4 + 3 \times 2 + 1. \\
333 &= 98 + 7 \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
334 &= 9 + 8 \times 7 + 65 \times 4 + 3^2 \times 1. \\
335 &= 9 + (8 + 7 + 65) \times 4 + 3 + 2 + 1. \\
336 &= 98 + 7 \times 6 \times 5 + 4 + 3 + 21. \\
337 &= 98 + 7 + 6 + 5 \times (43 + 2) + 1. \\
338 &= 98 + 76 + 54 \times 3 + 2 \times 1. \\
339 &= 98 + 76 + 54 \times 3 + 2 + 1. \\
340 &= 9 + 8 + (7 + 6) \times 5 \times 4 + 3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
341 &= 1 \times 234 + 5 + 6 + 7 + 89. \\
342 &= 1 + 234 + 5 + 6 + 7 + 89. \\
343 &= 1 \times 23 + 4 \times 56 + 7 + 89. \\
344 &= 1 + 23 + 4 \times 56 + 7 + 89. \\
345 &= 12 + 34 + 5 \times 6 \times 7 + 89. \\
346 &= 1^{2345} + 6 \times 7 \times 8 + 9. \\
347 &= 12 \times 3 + 4 \times 56 + 78 + 9. \\
348 &= 1 \times 234 + 5 \times (6 + 7 + 8) + 9. \\
349 &= 1^{23} \times 45 \times 6 + 7 + 8 \times 9. \\
350 &= 12 + 3 + 45 \times 6 + 7 \times 8 + 9. \\
351 &= 1 \times 234 + 5 \times 6 + 78 + 9. \\
352 &= 1 + 234 + 5 \times 6 + 78 + 9. \\
353 &= 1 \times 234 + 5 + 6 \times 7 + 8 \times 9. \\
354 &= 123 + 4 + 5 \times 6 \times 7 + 8 + 9. \\
355 &= 1 + 2 + 3 + 45 \times 6 + 7 + 8 \times 9. \\
356 &= 1 + 234 + 56 + 7 \times 8 + 9. \\
357 &= 1^2 \times 3 + 4 + 5 + 6 \times 7 \times 8 + 9. \\
358 &= 1 \times 23 + 45 \times 6 + 7 \times 8 + 9. \\
359 &= 1 + 23 + 45 \times 6 + 7 \times 8 + 9. \\
360 &= 1 + 2 + 3 + 4 + 5 + 6 \times 7 \times 8 + 9. \\
361 &= 1 + 234 + 5 \times 6 + 7 + 89. \\
362 &= 1 + 2 + 3 + 4 + 5 \times 67 + 8 + 9. \\
363 &= 1 + 2 + 3 + 45 \times 6 + 78 + 9. \\
364 &= 12 + 3 + 45 \times 6 + 7 + 8 \times 9. \\
365 &= 1 + 2 + 3 \times 4 + 5 + 6 \times 7 \times 8 + 9. \\
366 &= 1 \times 2 + 3 \times 4 + 5 \times 67 + 8 + 9. \\
367 &= 1 \times 2 \times 34 + 5 \times 6 \times 7 + 89. \\
368 &= 1 + 2 \times 34 + 5 \times 6 \times 7 + 89. \\
369 &= 1 \times 234 + 56 + 7 + 8 \times 9. \\
370 &= 1 + 234 + 56 + 7 + 8 \times 9. \\
371 &= 1 + 234 + 5 + 6 \times 7 + 89. \\
372 &= 12 + 3 + 45 \times 6 + 78 + 9. \\
373 &= 1 + 2 \times 3 \times 45 + 6 + 7 + 89. \\
374 &= 12 + 3 \times 4 + 5 + 6 \times 7 \times 8 + 9. \\
375 &= 1 + 23 \times 4 + 5 \times 6 \times 7 + 8 \times 9. \\
376 &= 12 + 3 \times 4 + 5 \times 67 + 8 + 9. \\
377 &= 1 \times 234 + 56 + 78 + 9. \\
378 &= 1 + 234 + 56 + 78 + 9. \\
379 &= 1 + 234 + 5 + 67 + 8 \times 9. \\
380 &= 1 + 23 + 4 + 5 \times 67 + 8 \times 9. \\
381 &= 1 + 23 + 45 \times 6 + 78 + 9. \\
382 &= 1 \times 2 + 3^4 + 5 \times 6 \times 7 + 89. \\
383 &= 1 + 2^3 \times 4 + 5 + 6 \times 7 \times 8 + 9. \\
384 &= 1 \times 2 \times 3 \times 45 + 6 \times 7 + 8 \times 9. \\
385 &= 1 + 2 \times 3 \times 45 + 6 \times 7 + 8 \times 9. \\
386 &= 1 \times 234 + 56 + 7 + 89. \\
387 &= 12 + 345 + 6 + 7 + 8 + 9. \\
388 &= 1 \times 2 + 34 + 5 \times 67 + 8 + 9. \\
389 &= 1 \times 23 + 45 \times 6 + 7 + 89. \\
390 &= 1 + 23 + 45 \times 6 + 7 + 89. \\
391 &= 1 \times 23 \times 4 + 5 \times 6 \times 7 + 89. \\
392 &= 1 + 23 \times 4 + 5 \times 6 \times 7 + 89. \\
393 &= 12 \times 3 + 45 \times 6 + 78 + 9. \\
394 &= 1^2 + 3 + 45 + 6 \times 7 \times 8 + 9. \\
395 &= 1 \times 234 + 5 + 67 + 89. \\
396 &= 1 + 234 + 5 + 67 + 89. \\
397 &= 1 + 2 \times 3 + 45 + 6 \times 7 \times 8 + 9. \\
398 &= 12 + 34 + 5 \times 67 + 8 + 9. \\
399 &= 1 \times 2 \times 34 \times 5 + 6 \times 7 + 8 + 9. \\
400 &= 1 + 2 \times 34 \times 5 + 6 \times 7 + 8 + 9. \\
401 &= 1 \times 2 \times 3 \times 45 + 6 \times 7 + 89. \\
402 &= 12 \times 3 + 45 \times 6 + 7 + 89. \\
403 &= 1 + (2 \times 3 + 45) \times 6 + 7 + 89. \\
404 &= 1^2 \times 345 + 6 \times 7 + 8 + 9. \\
405 &= 12 + 3 + 45 + 6 \times 7 \times 8 + 9. \\
406 &= 1 \times 2 + 345 + 6 \times 7 + 8 + 9. \\
407 &= 1 + 2 + 345 + 6 \times 7 + 8 + 9. \\
408 &= 1 + 2 + 3 \times 4 \times 5 + 6 \times 7 \times 8 + 9. \\
409 &= 123 + 4 + 5 \times 6 \times 7 + 8 \times 9. \\
410 &= 1 + 2 \times 3 \times 45 + 67 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
341 &= 98 + 7 \times 6 \times 5 + 4 \times 3 + 21. \\
342 &= 9 \times 8 + 7 + 6 + 5 + 4 \times 3 \times 21. \\
343 &= (9 + 8) \times 7 + 6 + 5 \times 43 + 2 + 1. \\
344 &= 9 \times 8 + 7 + 65 \times 4 + 3 + 2 \times 1. \\
345 &= 9 \times 8 + 7 + 65 \times 4 + 3 + 2 + 1. \\
346 &= 9 \times 8 + 7 + 65 \times 4 + 3 \times 2 + 1. \\
347 &= 98 + 7 + 6 + 5 \times 43 + 21. \\
348 &= 9 \times 8 + 7 + 65 \times 4 + 3^2 \times 1. \\
349 &= 9 + 8 \times 7 + 65 \times 4 + 3 + 21. \\
350 &= 9 + 8 + 76 + 5 + 4 \times 3 \times 21. \\
351 &= 9 + (87 + 6 + 5 \times 4) \times 3 + 2 + 1. \\
352 &= 9 + 8 + 7 + 6 + 5 \times 4^3 + 2 \times 1. \\
353 &= 9 + 8 + 7 + 6 \times 54 + 3 + 2 \times 1. \\
354 &= 9 + 8 + 7 + 6 \times 54 + 3 + 2 + 1. \\
355 &= 9 + 8 + 7 + 6 \times 54 + 3 \times 2 + 1. \\
356 &= 9 + 8 + 7 \times 6 \times 5 + 4 \times 32 + 1. \\
357 &= 98 + 76 + 54 \times 3 + 21. \\
358 &= 98 + 7 \times 6 + 5 \times 43 + 2 + 1. \\
359 &= 9 + 8 \times 7 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
360 &= 9 + 8 + 7 + 6 + 5 + 4 + 321. \\
361 &= 9 + 8 \times 7 \times 6 + 5 + 4 + 3 \times 2 + 1. \\
362 &= 9 + 87 + 65 \times 4 + 3 + 2 + 1. \\
363 &= 9 + 87 + 65 \times 4 + 3 \times 2 + 1. \\
364 &= 9 + 8 \times 7 \times 6 + 5 + 4 \times 3 + 2 \times 1. \\
365 &= 9 + 8 \times 7 \times 6 + 5 + 4 \times 3 + 2 + 1. \\
366 &= 9 \times 8 + 76 + 5 \times 43 + 2 + 1. \\
367 &= 9 \times 8 + 7 \times 6 \times 5 + 4^3 + 21. \\
368 &= 98 + 7 + 6 + 5 + 4 \times 3 \times 21. \\
369 &= 9 + 8 + 7 + 6 \times (54 + 3) + 2 + 1. \\
370 &= 98 + 7 + 65 \times 4 + 3 + 2 \times 1. \\
371 &= 98 + 7 + 65 \times 4 + 3 + 2 + 1. \\
372 &= 98 + 7 + 65 \times 4 + 3 \times 2 + 1. \\
373 &= 9 + 87 + 6 + 54 \times (3 + 2) + 1. \\
374 &= 9 + 8 \times 7 \times 6 + 5 + 4 \times 3 \times 2 \times 1. \\
375 &= 9 + 8 \times 7 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
376 &= 98 + 7 \times 6 + 5 \times 43 + 21. \\
377 &= 9 + 8 \times (7 + 6 + 5 + 4 + 3 + 21). \\
378 &= 9 + 8 \times 7 \times 6 + 5 + 4 + 3 + 21. \\
379 &= 9 + 8 + 7 + 6 \times 5 + 4 + 321. \\
380 &= 9 + 87 + 65 \times 4 + 3 + 21. \\
381 &= 9 + 8 + 7 + 6 \times 54 + 32 + 1. \\
382 &= 9 + 8 \times 7 + 65 + 4 \times 3 \times 21. \\
383 &= 9 + 8 + 7 \times 6 + 54 \times 3 \times 2 \times 1. \\
384 &= 9 + 8 + 7 \times 6 + 54 \times 3 \times 2 + 1. \\
385 &= (9 + 8) \times 7 + 65 \times 4 + 3 + 2 + 1. \\
386 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
387 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 3 + 2 + 1. \\
388 &= 9 + 87 + 65 \times 4 + 32 \times 1. \\
389 &= 9 + 8 \times 7 \times 6 + 5 \times 4 + 3 + 21. \\
390 &= 9 \times 8 + 7 \times (6 + 5 + 4) \times 3 + 2 + 1. \\
391 &= 98 + 76 + 5 \times 43 + 2 \times 1. \\
392 &= 98 + 76 + 5 \times 43 + 2 + 1. \\
393 &= 98 + 7 \times 6 \times 5 + 4^3 + 21. \\
394 &= 9 + 8 \times 7 + 6 \times 54 + 3 + 2 \times 1. \\
395 &= 9 + 8 \times 7 + 6 \times 54 + 3 + 2 + 1. \\
396 &= 9 + 8 \times 7 + 6 \times 54 + 3 \times 2 + 1. \\
397 &= 98 + 7 + 65 \times 4 + 32 \times 1. \\
398 &= 98 + 7 + 65 \times 4 + 32 + 1. \\
399 &= 9 + 8 \times 7 + 6 \times 54 + 3^2 + 1. \\
400 &= 9 + 8 + 7 \times 6 + 5 \times 4 + 321. \\
401 &= 9 + 8 \times 7 + 6 + 5 + 4 + 321. \\
402 &= 9 \times 8 + 7 + 65 \times 4 + 3 \times 21. \\
403 &= (9 + 8) \times 7 + 65 \times 4 + 3 + 21. \\
404 &= 9 + 8 \times 7 \times 6 + 54 + 3 + 2 \times 1. \\
405 &= 9 + 8 + 7 + 6 + 54 + 321. \\
406 &= 9 + 8 \times 7 \times 6 + 54 + 3 \times 2 + 1. \\
407 &= 9 + 8 + 76 \times 5 + 4 + 3 + 2 + 1. \\
408 &= 9 + 8 + 76 \times 5 + 4 + 3 \times 2 + 1. \\
409 &= 9 \times 8 + 7 + 6 \times 54 + 3 + 2 + 1. \\
410 &= 98 + 76 + 5 \times 43 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
411 &= 1 \times 2 \times 34 \times 5 + 6 + 7 \times 8 + 9. \\
412 &= 123 + 4 \times 56 + 7 \times 8 + 9. \\
413 &= 1 \times 23 + 45 + 6 \times 7 \times 8 + 9. \\
414 &= 1 + 23 + 45 + 6 \times 7 \times 8 + 9. \\
415 &= 1^2 + 3 + 4 + 5 \times 67 + 8 \times 9. \\
416 &= 12 + 345 + 6 \times 7 + 8 + 9. \\
417 &= 123 + 45 \times 6 + 7 + 8 + 9. \\
418 &= 1 \times 2 + 345 + 6 + 7 \times 8 + 9. \\
419 &= 1 + 2 + 345 + 6 + 7 \times 8 + 9. \\
420 &= 1 + 2 \times 3 + 4 + 56 \times 7 + 8 + 9. \\
421 &= 1 + 2 \times 34 + 5 \times 67 + 8 + 9. \\
422 &= 1 + 2 + 3 \times 4 + 5 \times 67 + 8 \times 9. \\
423 &= 1 \times 2 + 3 \times 4 + 56 \times 7 + 8 + 9. \\
424 &= 1 + 2 + 3 \times 4 + 56 \times 7 + 8 + 9. \\
425 &= 1 + 2 \times 34 \times 5 + 67 + 8 + 9. \\
426 &= 1 \times 2 \times 3 \times 45 + 67 + 89. \\
427 &= 1 + 2 \times 3 \times 45 + 67 + 89. \\
428 &= 12 + 345 + 6 + 7 \times 8 + 9. \\
429 &= 1^2 \times 345 + 67 + 8 + 9. \\
430 &= 1^2 + 345 + 67 + 8 + 9. \\
431 &= 1 \times 2 + 345 + 67 + 8 + 9. \\
432 &= 1 + 2 + 345 + 67 + 8 + 9. \\
433 &= 1 + 2 + 345 + 6 + 7 + 8 \times 9. \\
434 &= 123 + 4 \times 56 + 78 + 9. \\
435 &= 1 + 23 + 4 + 5 \times 67 + 8 \times 9. \\
436 &= 1 \times 23 + 4 + 56 \times 7 + 8 + 9. \\
437 &= 1 + 23 + 4 + 56 \times 7 + 8 + 9. \\
438 &= 1 \times 2 + 3 \times 4 + 5 \times 67 + 89. \\
439 &= 1 + 2 + 3 \times 4 + 5 \times 67 + 89. \\
440 &= 1 \times 2 + 345 + 6 + 78 + 9. \\
441 &= 12 + 345 + 67 + 8 + 9. \\
442 &= 12 + 345 + 6 + 7 + 8 \times 9. \\
443 &= 123 + 4 \times 56 + 7 + 89. \\
444 &= 1 + 2 + 34 + 5 \times 67 + 8 \times 9. \\
445 &= 1 + 23 \times 4 + 5 \times 67 + 8 + 9. \\
446 &= 1 + 2 + 34 + 56 \times 7 + 8 + 9. \\
447 &= 12 \times 3 + 4 + 5 \times 67 + 8 \times 9. \\
448 &= 12 + 3 \times 4 + 5 \times 67 + 89. \\
449 &= 1 \times 2 + 345 + 6 + 7 + 8 + 9. \\
450 &= 12 + 345 + 6 + 78 + 9. \\
451 &= 1 \times 23 + 4 + 5 \times 67 + 89. \\
452 &= 1 + 23 + 4 + 5 \times 67 + 89. \\
453 &= 12 + 34 + 5 \times 67 + 8 \times 9. \\
454 &= 1 \times 2 \times 34 \times 5 + 6 \times 7 + 8 \times 9. \\
455 &= 12 + 34 + 56 \times 7 + 8 + 9. \\
456 &= 1^2 \times 3 \times 4 \times 5 \times 6 + 7 + 89. \\
457 &= 1 + 2^3 \times 4 + 5 \times 67 + 89. \\
458 &= 123 + 45 \times 6 + 7 \times 8 + 9. \\
459 &= 12 + 345 + 6 + 7 + 89. \\
460 &= 1 \times 2 + 34 + 5 \times 67 + 89. \\
461 &= 1 + 2 + 34 + 5 \times 67 + 89. \\
462 &= 1 + 234 + 5 \times 6 \times 7 + 8 + 9. \\
463 &= 1 + 2^3 \times 45 + 6 + 7 + 89. \\
464 &= 12 \times 3 + 4 + 5 \times 67 + 89. \\
465 &= 1 \times 2 \times 3 \times 4 \times 5 + 6 \times 7 \times 8 + 9. \\
466 &= 1 + 2 \times 3 \times 4 \times 5 + 6 \times 7 \times 8 + 9. \\
467 &= 1 + 2 + 3^4 \times 5 + 6 \times 7 + 8 + 9. \\
468 &= 12 + 3 \times 4 \times 5 \times 6 + 7 + 89. \\
469 &= 1^{23} + 4 + 56 \times 7 + 8 \times 9. \\
470 &= 12 + 34 + 5 \times 67 + 89. \\
471 &= 12 + 345 + 6 \times 7 + 8 \times 9. \\
472 &= 123 + 45 \times 6 + 7 + 8 \times 9. \\
473 &= 1 \times 2 + 3 + 4 + 56 \times 7 + 8 \times 9. \\
474 &= 1 + 2 + 3 + 4 + 56 \times 7 + 8 \times 9. \\
475 &= 1 \times 2 \times 34 + 5 \times 67 + 8 \times 9. \\
476 &= 1 + 2 \times 34 + 5 \times 67 + 8 \times 9. \\
477 &= 123 + 4 + 5 + 6 \times 7 \times 8 + 9. \\
478 &= 1 \times 2 + 345 + 6 \times 7 + 89. \\
479 &= 123 + 4 + 5 \times 67 + 8 + 9. \\
480 &= 123 + 45 \times 6 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
411 &= 9 + 8 + 76 \times 5 + 4 \times 3 + 2 \times 1. \\
412 &= 9 + 8 + 76 \times 5 + 4 \times 3 + 2 + 1. \\
413 &= 9 + 8 \times 7 + 6 \times 54 + 3 + 21. \\
414 &= 9 + 8 + 7 + 65 + 4 + 321. \\
415 &= 9 \times 8 + 7 + 6 + 5 + 4 + 321. \\
416 &= 9 + 8 + 76 + 5 \times 4^3 + 2 + 1. \\
417 &= 9 + 8 + 76 + 54 \times 3 \times 2 \times 1. \\
418 &= 9 + 8 + 76 + 54 \times 3 \times 2 + 1. \\
419 &= 9 + 87 + 65 \times 4 + 3 \times 21. \\
420 &= 9 + 8 \times 7 + 6 \times 5 + 4 + 321. \\
421 &= 9 + 8 + 76 \times 5 + 4 \times 3 \times 2 \times 1. \\
422 &= 9 + 8 + 76 \times 5 + 4 \times 3 \times 2 + 1. \\
423 &= 9 + 8 + 76 + 5 + 4 + 321. \\
424 &= 9 + 87 + 6 + 5 \times 4^3 + 2 \times 1. \\
425 &= 9 + 8 + 76 \times 5 + 4 + 3 + 21. \\
426 &= 9 + 87 + 6 \times 54 + 3 + 2 + 1. \\
427 &= 9 + 87 + 6 \times 54 + 3 \times 2 + 1. \\
428 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times 3 + 2 + 1. \\
429 &= 9 + 87 + 6 \times 54 + 3^2 \times 1. \\
430 &= 9 + 8 + 76 \times 5 + 4 \times 3 + 21. \\
431 &= 98 + 76 + 5 + 4 \times 3 \times 21. \\
432 &= 9 + 87 + 6 + 5 + 4 + 321. \\
433 &= 9 + 8 + 76 \times 5 + 4 + 32 \times 1. \\
434 &= 98 + 7 + 6 \times 54 + 3 + 2 \times 1. \\
435 &= 98 + 7 + 6 \times 54 + 3 + 2 + 1. \\
436 &= 98 + 7 + 6 \times 54 + 3 \times 2 + 1. \\
437 &= 98 + 7 \times 6 \times 5 + 4 \times 32 + 1. \\
438 &= 9 \times 8 + 7 \times 6 + 54 \times 3 \times 2 \times 1. \\
439 &= 9 \times 8 + 7 \times 6 + 54 \times 3 \times 2 + 1. \\
440 &= (9 \times 8 + 7 + 6) \times 5 + 4 \times 3 + 2 + 1. \\
441 &= 98 + 7 + 6 + 5 + 4 + 321. \\
442 &= 9 \times 8 + 7 + 6 \times 5 \times 4 \times 3 + 2 + 1. \\
443 &= 9 + 8 + 76 \times 5 + 43 + 2 + 1. \\
444 &= 9 + 87 + 6 \times 54 + 3 + 21. \\
445 &= 98 + 76 + 54 \times (3 + 2) + 1. \\
446 &= 9 + 8 \times 7 + 6 + 54 + 321. \\
447 &= (9 \times 8 + 7 + 65 + 4) \times 3 + 2 + 1. \\
448 &= (9 + 8) \times 7 + 6 \times 54 + 3 + 2 \times 1. \\
449 &= (9 + 8) \times 7 + 6 \times 54 + 3 + 2 + 1. \\
450 &= 98 + 7 + 6 \times (54 + 3) + 2 + 1. \\
451 &= 9 + 87 + 6 \times 5 + 4 + 321. \\
452 &= 98 + 7 + 6 + 5 \times 4 + 321. \\
453 &= 98 + 7 + 6 \times 54 + 3 + 21. \\
454 &= 9 + (8 + 76) \times 5 + 4 \times 3 \times 2 + 1. \\
455 &= 9 + 8 \times 7 + 65 + 4 + 321. \\
456 &= 9 + 87 + 6 \times (54 + 3 + 2 + 1). \\
457 &= 9 + (8 + 76) \times 5 + 4 + 3 + 21. \\
458 &= 9 + 87 + 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
459 &= 9 + 87 + 6 \times 5 \times 4 \times 3 + 2 + 1. \\
460 &= 9 \times 8 + 7 + 6 + 54 + 321. \\
461 &= 9 \times 8 + 76 \times 5 + 4 + 3 + 2 \times 1. \\
462 &= 9 \times 8 + 76 \times 5 + 4 + 3 + 2 + 1. \\
463 &= 9 \times 8 + 76 \times 5 + 4 + 3 \times 2 + 1. \\
464 &= 98 + 7 \times 6 + 54 \times 3 \times 2 \times 1. \\
465 &= 98 + 7 \times 6 + 54 \times 3 \times 2 + 1. \\
466 &= 9 \times 8 + 76 \times 5 + 4 \times 3 + 2 \times 1. \\
467 &= 9 \times 8 + 76 \times 5 + 4 \times 3 + 2 + 1. \\
468 &= 9 + 8 + 76 + 54 + 321. \\
469 &= 9 \times 8 + 7 + 65 + 4 + 321. \\
470 &= 98 + 7 \times 6 + 5 + 4 + 321. \\
471 &= 9 \times 8 + 76 + 5 \times 4^3 + 2 + 1. \\
472 &= 9 \times 8 + 76 + 54 \times 3 \times 2 \times 1. \\
473 &= 9 \times 8 + 76 + 54 \times 3 \times 2 + 1. \\
474 &= 9 \times 8 + 7 \times (54 + 3) + 2 + 1. \\
475 &= (9 + 8) \times 7 + 6 \times 54 + 32 \times 1. \\
476 &= 9 \times 8 + 76 \times 5 + 4 \times 3 \times 2 \times 1. \\
477 &= 9 + 87 + 6 + 54 + 321. \\
478 &= 9 \times 8 + 76 + 5 + 4 + 321. \\
479 &= 9 + 8 \times 7 \times 6 + 5 + 4 \times 32 + 1. \\
480 &= 9 \times 8 + 76 \times 5 + 4 + 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
481 &= 1^2 + 3 \times 45 + 6 \times 7 \times 8 + 9. \\
482 &= 1 \times 2 + 3 \times 45 + 6 \times 7 \times 8 + 9. \\
483 &= 12 + 3 + 4 + 56 \times 7 + 8 \times 9. \\
484 &= 12 \times 34 + 5 + 6 + 7 \times 8 + 9. \\
485 &= 1 \times 2 + 3 + 456 + 7 + 8 + 9. \\
486 &= 1 + 2 + 3 + 456 + 7 + 8 + 9. \\
487 &= 1 + 2 + 345 + 67 + 8 \times 9. \\
488 &= 12 \times 34 + 56 + 7 + 8 + 9. \\
489 &= 123 + 45 \times 6 + 7 + 89. \\
490 &= 1 \times 2 + 3 + 4 + 56 \times 7 + 89. \\
491 &= 1 + 2 + 3 + 4 + 56 \times 7 + 89. \\
492 &= 1 + 23 + 4 + 56 \times 7 + 8 \times 9. \\
493 &= 1 + 2 \times 34 + 5 \times 67 + 89. \\
494 &= 12 \times 3 \times 4 + 5 + 6 \times 7 \times 8 + 9. \\
495 &= 12 + 3 + 456 + 7 + 8 + 9. \\
496 &= 12 + 345 + 67 + 8 \times 9. \\
497 &= 12 \times 34 + 5 + 67 + 8 + 9. \\
498 &= 12 \times 34 + 5 + 6 + 7 + 8 \times 9. \\
499 &= 1 \times 23 \times 4 + 5 \times 67 + 8 \times 9. \\
500 &= 12 + 3 + 4 + 56 \times 7 + 89. \\
501 &= 12 + 3 + 4 + 5 + 6 \times 78 + 9. \\
502 &= 1 + 23 \times 4 + 56 \times 7 + 8 + 9. \\
503 &= 1 \times 2 + 345 + 67 + 89. \\
504 &= 1 + 2 + 345 + 67 + 89. \\
505 &= 12 + 3 \times 4 + 56 \times 7 + 89. \\
506 &= 12 \times 34 + 5 + 6 + 78 + 9. \\
507 &= 1 + 2 \times 3 \times 4 + 5 + 6 \times 78 + 9. \\
508 &= 1 \times 23 + 4 + 56 \times 7 + 89. \\
509 &= 1 + 23 + 4 + 56 \times 7 + 89. \\
510 &= 12 + 34 + 56 \times 7 + 8 \times 9. \\
511 &= 1^{2345} + 6 + 7 \times 8 \times 9. \\
512 &= 12 + 3 + 4 \times 5 + 6 \times 78 + 9. \\
513 &= 12 + 345 + 67 + 89. \\
514 &= 1 + 2^3 \times 4 + 56 \times 7 + 89. \\
515 &= 12 \times 34 + 5 + 6 + 7 + 89. \\
516 &= 12 \times 3 + 456 + 7 + 8 + 9. \\
517 &= 1 \times 2 + 34 + 56 \times 7 + 89. \\
518 &= 1 + 2 + 34 + 56 \times 7 + 89. \\
519 &= 1 + 2 + 34 + 5 + 6 \times 78 + 9. \\
520 &= 1 + 23 \times 4 \times 5 + 6 \times 7 + 8 + 9. \\
521 &= 12 \times 3 + 4 + 56 \times 7 + 89. \\
522 &= 12 \times 3 + 4 + 5 + 6 \times 78 + 9. \\
523 &= 1^2 + 3 + 4 + 5 + 6 + 7 \times 8 \times 9. \\
524 &= 1 \times 2 + 3 + 4 + 5 + 6 + 7 \times 8 \times 9. \\
525 &= 1 + 2 + 3 + 4 + 5 + 6 + 7 \times 8 \times 9. \\
526 &= 1 \times 2 + 3 + 456 + 7 \times 8 + 9. \\
527 &= 123 \times 4 + 5 + 6 + 7 + 8 + 9. \\
528 &= 12 + 34 + 5 + 6 \times 78 + 9. \\
529 &= 12 \times 34 + 56 + 7 \times 8 + 9. \\
530 &= 1 + 2 + 3 \times 4 + 5 + 6 + 7 \times 8 \times 9. \\
531 &= 1 \times 23 \times 4 \times 5 + 6 + 7 \times 8 + 9. \\
532 &= 1 \times 2 \times 34 + 56 \times 7 + 8 \times 9. \\
533 &= 12 \times 3 + 4 \times 5 + 6 \times 78 + 9. \\
534 &= 1 + 234 + 5 \times 6 \times 7 + 89. \\
535 &= 1 \times 2 + 3 + 4 \times 5 + 6 + 7 \times 8 \times 9. \\
536 &= 12 + 3 + 456 + 7 \times 8 + 9. \\
537 &= 12 + 3 + 45 + 6 \times 78 + 9. \\
538 &= 1^2 + 3 \times 4 \times 5 + 6 \times 78 + 9. \\
539 &= 12 + 3 \times 4 + 5 + 6 + 7 \times 8 \times 9. \\
540 &= 1 \times 2 + 3 + 456 + 7 + 8 \times 9. \\
541 &= 1 + 2 + 3 + 456 + 7 + 8 \times 9. \\
542 &= 1 + 2 \times 3 + 456 + 7 + 8 \times 9. \\
543 &= 12 \times 34 + 56 + 7 + 8 \times 9. \\
544 &= 12 \times 34 + 5 + 6 \times 7 + 89. \\
545 &= 1 + 23 + 456 + 7 \times 8 + 9. \\
546 &= 1 + 23 + 45 + 6 \times 78 + 9. \\
547 &= 1^2 + 3 + 456 + 78 + 9. \\
548 &= 1 \times 2 + 3 + 456 + 78 + 9. \\
549 &= 1 + 2 + 3 + 456 + 78 + 9. \\
550 &= 1 + 2 \times 3 + 456 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
481 &= 9 + 8 + 7 \times 65 + 4 + 3 + 2 \times 1. \\
482 &= 9 + 8 + 7 \times 65 + 4 + 3 + 2 + 1. \\
483 &= 9 + 8 + 7 \times 65 + 4 + 3 \times 2 + 1. \\
484 &= 9 + 8 + 76 \times 5 + 43 \times 2 + 1. \\
485 &= 9 \times 8 + 76 \times 5 + 4 \times 3 + 21. \\
486 &= 9 + 87 + 65 + 4 + 321. \\
487 &= 9 + 8 + 7 \times 65 + 4 \times 3 + 2 + 1. \\
488 &= 98 + 76 \times 5 + 4 + 3 + 2 + 1. \\
489 &= 98 + 76 \times 5 + 4 + 3 \times 2 + 1. \\
490 &= (9 + 8 + 76) \times 5 + 4 \times 3 \times 2 + 1. \\
491 &= 98 + 76 \times 5 + 4 + 3^2 \times 1. \\
492 &= 98 + 76 \times 5 + 4 \times 3 + 2 \times 1. \\
493 &= 98 + 76 \times 5 + 4 \times 3 + 2 + 1. \\
494 &= 98 + 76 + 5 \times (43 + 21). \\
495 &= 98 + 7 + 65 + 4 + 321. \\
496 &= 9 + 8 + 7 \times 65 + 4 \times 3 \times 2 \times 1. \\
497 &= 9 + 8 + 7 \times 65 + 4 \times 3 \times 2 + 1. \\
498 &= 9 \times 8 + 76 \times 5 + 43 + 2 + 1. \\
499 &= 98 + 76 + 54 \times 3 \times 2 + 1. \\
500 &= 9 + 8 + 7 \times 65 + 4 + 3 + 21. \\
501 &= 9 + 8 \times 7 + 6 + 5 \times 43 \times 2 \times 1. \\
502 &= 98 + 76 \times 5 + 4 \times 3 \times 2 \times 1. \\
503 &= 98 + 76 \times 5 + 4 \times 3 \times 2 + 1. \\
504 &= 98 + 76 + 5 + 4 + 321. \\
505 &= 9 + 8 + 7 \times 65 + 4 \times 3 + 21. \\
506 &= 98 + 76 \times 5 + 4 + 3 + 21. \\
507 &= (9 \times 8 + 7) \times 6 + 5 + 4 + 3 + 21. \\
508 &= 9 + 8 \times 7 + 6 + 5 + 432 \times 1. \\
509 &= 9 + 8 \times 7 + 6 + 5 + 432 + 1. \\
510 &= 9 + 8 \times 7 \times 6 + 54 \times 3 + 2 + 1. \\
511 &= 98 + 76 \times 5 + 4 \times 3 + 21. \\
512 &= 98 + 7 \times (54 + 3 + 2) + 1. \\
513 &= 9 \times 8 + 7 \times 6 \times (5 + 4) + 3 \times 21. \\
514 &= 98 + 76 \times 5 + 4 + 32 \times 1. \\
515 &= 98 + 7 \times 6 + 54 + 321. \\
516 &= 9 \times 8 + 76 \times 5 + 43 + 21. \\
517 &= 9 + 8 + 7 \times 65 + 43 + 2 \times 1. \\
518 &= 9 + 8 + 7 \times 65 + 43 + 2 + 1. \\
519 &= 9 \times 8 + 76 \times 5 + 4 + 3 \times 21. \\
520 &= 9 \times 8 + 7 + 6 \times 5 \times 4 + 321. \\
521 &= 9 + 8 + 7 + 65 + 432 \times 1. \\
522 &= 9 + 8 + 7 + 65 + 432 + 1. \\
523 &= 9 \times 8 + 76 + 54 + 321. \\
524 &= 98 + 76 \times 5 + 43 + 2 + 1. \\
525 &= 9 \times 8 \times 7 + 6 + 5 + 4 + 3 + 2 + 1. \\
526 &= 9 \times 8 \times 7 + 6 + 5 + 4 + 3 \times 2 + 1. \\
527 &= 9 + 8 \times 7 + 6 \times 5 + 432 \times 1. \\
528 &= 9 + 8 \times 7 + 6 \times 5 + 432 + 1. \\
529 &= 9 \times 8 \times 7 + 6 + 5 + 4 \times 3 + 2 \times 1. \\
530 &= 9 \times 8 \times 7 + 6 + 5 + 4 \times 3 + 2 + 1. \\
531 &= 9 + 8 + 76 + 5 + 432 + 1. \\
532 &= 9 + 87 + 6 + 5 \times 43 \times 2 \times 1. \\
533 &= (9 \times 8 + 7) \times 6 + 54 + 3 + 2 \times 1. \\
534 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 3 \times 21. \\
535 &= 9 \times 8 \times 7 + 6 + 5 \times 4 + 3 + 2 \times 1. \\
536 &= 9 \times 8 \times 7 + 6 + 5 \times 4 + 3 + 2 + 1. \\
537 &= 9 \times 8 + 7 \times 65 + 4 + 3 + 2 + 1. \\
538 &= 9 \times 8 + 7 \times 65 + 4 + 3 \times 2 + 1. \\
539 &= 9 \times 8 \times 7 + 6 + 5 + 4 \times 3 \times 2 \times 1. \\
540 &= 9 + 87 + 6 + 5 + 432 + 1. \\
541 &= 9 \times 8 + 7 \times 65 + 4 \times 3 + 2 \times 1. \\
542 &= 9 \times 8 + 7 \times 65 + 4 \times 3 + 2 + 1. \\
543 &= 9 \times 8 \times 7 + 6 + 5 + 4 + 3 + 21. \\
544 &= 9 \times 8 \times 7 + 6 \times 5 + 4 + 3 + 2 + 1. \\
545 &= 9 + 87 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
546 &= 9 + 87 \times 6 + 5 + 4 + 3 + 2 + 1. \\
547 &= 9 + 87 \times 6 + 5 + 4 + 3 \times 2 + 1. \\
548 &= 9 \times 8 \times 7 + 6 \times 5 + 4 \times 3 + 2 \times 1. \\
549 &= 98 + 76 + 54 + 321. \\
550 &= 9 + 87 \times 6 + 5 + 4 \times 3 + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
551 &= 12 \times 34 + 56 + 78 + 9. \\
552 &= 12 \times 34 + 5 + 67 + 8 \times 9. \\
553 &= 12 \times 3 \times 4 + 56 \times 7 + 8 + 9. \\
554 &= 1 + 23 \times 4 \times 5 + 6 + 78 + 9. \\
555 &= 12 \times 3 + 4 + 5 + 6 + 7 \times 8 \times 9. \\
556 &= 123 \times 4 + 5 + 6 \times 7 + 8 + 9. \\
557 &= 1 \times 2 + 3 + 456 + 7 + 89. \\
558 &= 12 + 3 + 456 + 78 + 9. \\
559 &= 1 + 23 + 456 + 7 + 8 \times 9. \\
560 &= 12 \times 34 + 56 + 7 + 89. \\
561 &= 1 + 2 + 3 + 45 + 6 + 7 \times 8 \times 9. \\
562 &= 1 + 23 + 4 + 5 \times 6 + 7 \times 8 \times 9. \\
563 &= 1 + 23 \times 4 \times 5 + 6 + 7 + 89. \\
564 &= 1 \times 2 + 3 \times 4 + 5 + 67 \times 8 + 9. \\
565 &= 1 + 2 + 3 \times 4 + 5 + 67 \times 8 + 9. \\
566 &= 1 \times 23 + 456 + 78 + 9. \\
567 &= 1 + 23 + 456 + 78 + 9. \\
568 &= 12 \times 3 \times 4 + 5 \times 67 + 89. \\
569 &= 12 \times 34 + 5 + 67 + 89. \\
570 &= 12 + 3 + 45 + 6 + 7 \times 8 \times 9. \\
571 &= 12 \times 3 + 456 + 7 + 8 \times 9. \\
572 &= 123 \times 4 + 56 + 7 + 8 \times 9. \\
573 &= 1 \times 23 \times 4 + 56 \times 7 + 89. \\
574 &= 12 + 3 \times 4 + 5 + 67 \times 8 + 9. \\
575 &= 1 \times 23 + 456 + 7 + 89. \\
576 &= 1 + 23 + 456 + 7 + 89. \\
577 &= 1 \times 23 + 4 + 5 + 67 \times 8 + 9. \\
578 &= 1 + 23 + 4 + 5 + 67 \times 8 + 9. \\
579 &= 12 \times 3 + 456 + 78 + 9. \\
580 &= 12 + 34 + 5 \times 6 + 7 \times 8 \times 9. \\
581 &= 123 \times 4 + 5 + 67 + 8 + 9. \\
582 &= 123 \times 4 + 5 + 6 + 7 + 8 \times 9. \\
583 &= 1 \times 2 \times 34 + 5 + 6 + 7 \times 8 \times 9. \\
584 &= 12 + 3 \times 4 + 56 + 7 \times 8 \times 9. \\
585 &= 1 + 234 + 5 + 6 \times 7 \times 8 + 9. \\
586 &= 1 \times 234 + 5 \times 67 + 8 + 9. \\
587 &= 1 + 234 + 5 \times 67 + 8 + 9. \\
588 &= 12 \times 3 + 456 + 7 + 89. \\
589 &= 1 + 23 + 4 \times 5 + 67 \times 8 + 9. \\
590 &= 123 \times 4 + 5 + 6 + 78 + 9. \\
591 &= 123 + 4 + 56 \times 7 + 8 \times 9. \\
592 &= 1 + 23 \times 4 \times 5 + 6 \times 7 + 89. \\
593 &= 1 \times 2 + 3 + 4 + 567 + 8 + 9. \\
594 &= 1 + 2 + 3 + 4 + 567 + 8 + 9. \\
595 &= 1 + 2 \times 3 + 4 + 567 + 8 + 9. \\
596 &= 12 + 34 + 5 + 67 \times 8 + 9. \\
597 &= 1 + 2 + 34 + 56 + 7 \times 8 \times 9. \\
598 &= 1 \times 2 + 3 \times 4 + 567 + 8 + 9. \\
599 &= 123 \times 4 + 5 + 6 + 7 + 89. \\
600 &= 12 \times 3 + 4 + 56 + 7 \times 8 \times 9. \\
601 &= 12 \times 3 + 4 \times 5 + 67 \times 8 + 9. \\
602 &= 1 \times 2 \times 34 + 5 \times 6 + 7 \times 8 \times 9. \\
603 &= 123 + 456 + 7 + 8 + 9. \\
604 &= (1 \times 2 + 3) \times 4 + 567 + 8 + 9. \\
605 &= 12 + 3 + 45 + 67 \times 8 + 9. \\
606 &= 12 + 34 + 56 + 7 \times 8 \times 9. \\
607 &= 1 \times 23 \times 4 + 5 + 6 + 7 \times 8 \times 9. \\
608 &= 123 + 4 + 56 \times 7 + 89. \\
609 &= 123 + 4 + 5 + 6 \times 78 + 9. \\
610 &= 1 + 2 \times 3 + 45 + (6 + 7 \times 8) \times 9. \\
611 &= 1 \times 23 + 4 + 567 + 8 + 9. \\
612 &= 1 + 23 + 4 + 567 + 8 + 9. \\
613 &= 123 \times 4 + 56 + 7 \times 8 + 9. \\
614 &= 1 + 23 + 45 + 67 \times 8 + 9. \\
615 &= 1 + 2 + 3 \times 45 + 6 \times 78 + 9. \\
616 &= 1 \times 23 \times 4 \times 5 + 67 + 89. \\
617 &= 1 + 23 \times 4 \times 5 + 67 + 89. \\
618 &= 123 \times 4 + 5 \times 6 + 7 + 89. \\
619 &= 1 + 2 \times 34 + 5 + 67 \times 8 + 9. \\
620 &= 1 \times 2 + 34 + 567 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
551 &= 9 + 87 \times 6 + 5 + 4 \times 3 + 2 + 1. \\
552 &= 9 \times 8 + 7 \times 65 + 4 \times 3 \times 2 + 1. \\
553 &= 98 + 7 \times (6 + 54 + 3 + 2 \times 1). \\
554 &= 9 \times 8 \times 7 + 6 + 5 \times 4 + 3 + 21. \\
555 &= 9 \times 8 + 7 \times 65 + 4 + 3 + 21. \\
556 &= 9 + 87 \times 6 + 5 \times 4 + 3 + 2 \times 1. \\
557 &= 9 + 87 \times 6 + 5 \times 4 + 3 + 2 + 1. \\
558 &= 9 + 87 \times 6 + 5 \times 4 + 3 \times 2 + 1. \\
559 &= 9 \times 8 \times 7 + 6 \times 5 + 4 \times 3 \times 2 + 1. \\
560 &= 9 \times 8 + 7 \times 65 + 4 \times 3 + 21. \\
561 &= 9 + 87 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
562 &= 98 + 7 \times 65 + 4 + 3 + 2 \times 1. \\
563 &= 98 + 7 \times 65 + 4 + 3 + 2 + 1. \\
564 &= 98 + 7 \times 65 + 4 + 3 \times 2 + 1. \\
565 &= 98 + 76 \times 5 + 43 \times 2 + 1. \\
566 &= 98 + 7 \times 65 + 4 + 3^2 \times 1. \\
567 &= 98 + 7 \times 65 + 4 \times 3 + 2 \times 1. \\
568 &= 98 + 7 \times 65 + 4 \times 3 + 2 + 1. \\
569 &= 9 \times 8 \times 7 + 6 + 54 + 3 + 2 \times 1. \\
570 &= 9 \times 8 \times 7 + 6 + 54 + 3 + 2 + 1. \\
571 &= 9 \times 8 \times 7 + 6 + 54 + 3 \times 2 + 1. \\
572 &= 9 \times 8 \times 7 + 6 + 5 \times 4 \times 3 + 2 \times 1. \\
573 &= 9 \times 8 + 7 \times 65 + 43 + 2 + 1. \\
574 &= 9 \times 8 \times 7 + 6 + 54 + 3^2 + 1. \\
575 &= 9 + 87 \times 6 + 5 \times 4 + 3 + 21. \\
576 &= 9 + 8 + 7 + 6 + 543 + 2 + 1. \\
577 &= 98 + 7 \times 65 + 4 \times 3 \times 2 + 1. \\
578 &= 98 + 7 \times 65 + 4 \times 3 \times 2 + 1. \\
579 &= 9 \times 8 \times 7 + 65 + 4 + 3 + 2 + 1. \\
580 &= 9 \times 8 \times 7 + 65 + 4 + 3 \times 2 + 1. \\
581 &= 98 + 7 \times 65 + 4 + 3 + 21. \\
582 &= 9 + 87 \times 6 + 5 + 43 + 2 + 1. \\
583 &= 9 \times 8 \times 7 + 65 + 4 \times 3 + 2 \times 1. \\
584 &= 9 \times 8 \times 7 + 65 + 4 \times 3 + 2 + 1. \\
585 &= 9 \times 8 + 76 + 5 + 432 \times 1. \\
586 &= 9 \times 8 + 76 + 5 + 432 + 1. \\
587 &= 98 + 7 \times (65 + 4) + 3 + 2 + 1. \\
588 &= 9 \times 8 \times 7 + 6 + 54 + 3 + 21. \\
589 &= 98 + 7 \times 65 + 4 + 32 \times 1. \\
590 &= 9 + 87 \times 6 + 54 + 3 + 2 \times 1. \\
591 &= 9 + 87 \times 6 + 54 + 3 + 2 + 1. \\
592 &= 9 + 87 \times 6 + 54 + 3 \times 2 + 1. \\
593 &= 9 \times 8 \times 7 + 65 + 4 \times 3 \times 2 \times 1. \\
594 &= 9 + 87 + 65 + 432 + 1. \\
595 &= 9 + 87 \times 6 + 54 + 3^2 + 1. \\
596 &= 9 \times 8 \times 7 + 6 + 54 + 32 \times 1. \\
597 &= 9 \times 8 \times 7 + 65 + 4 + 3 + 21. \\
598 &= 98 + 7 \times 65 + 43 + 2 \times 1. \\
599 &= 98 + 7 \times 65 + 43 + 2 + 1. \\
600 &= 9 + 87 \times 6 + 5 + 43 + 21. \\
601 &= 9 + 8 + 7 \times 65 + 4 \times 32 + 1. \\
602 &= 98 + 7 + 65 + 432 \times 1. \\
603 &= 98 + 7 + 65 + 432 + 1. \\
604 &= 98 + 76 + 5 \times 43 \times 2 \times 1. \\
605 &= 9 + 8 + 7 \times 6 + 543 + 2 + 1. \\
606 &= 98 + 76 \times 5 + 4 \times 32 \times 1. \\
607 &= 98 + 76 \times 5 + 4 \times 32 + 1. \\
608 &= 98 + 7 \times (6 + 5) + 432 + 1. \\
609 &= 9 + 87 \times 6 + 54 + 3 + 21. \\
610 &= 98 + 76 \times 5 + 4 \times (32 + 1). \\
611 &= 98 + 76 + 5 + 432 \times 1. \\
612 &= 98 + 76 + 5 + 432 + 1. \\
613 &= 9 \times 8 + 7 \times 65 + 43 \times 2 \times 1. \\
614 &= 9 \times 8 \times 7 + 65 + 43 + 2 \times 1. \\
615 &= 9 \times 8 \times 7 + 65 + 43 + 2 + 1. \\
616 &= 9 + 8 \times 7 + 6 + 543 + 2 \times 1. \\
617 &= 9 + 8 \times 7 + 6 + 543 + 2 + 1. \\
618 &= 9 + 87 \times 6 + 54 + 32 + 1. \\
619 &= 9 \times 8 \times 7 + 6 \times 5 + 4^3 + 21. \\
620 &= 98 + 7 \times 65 + 4 + 3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
621 &= 1 + 2 + 34 + 567 + 8 + 9. \\
622 &= 123 \times 4 + 5 + 6 + 7 \times (8 + 9). \\
623 &= 12 + 3 + 4 \times (56 + 7 + 89). \\
624 &= 12 \times 3 + 4 + 567 + 8 + 9. \\
625 &= 12 \times 3 \times 4 + 56 + 7 + 89. \\
626 &= 12 \times 3 + 45 + 67 \times 8 + 9. \\
627 &= 123 \times 4 + 56 + 7 + 8 \times 9. \\
628 &= 123 \times 4 + 5 + 6 \times 7 + 89. \\
629 &= 1 + 2 \times 34 + 56 + 7 \times 8 \times 9. \\
630 &= 12 + 34 + 567 + 8 + 9. \\
631 &= 1 + 2 \times 3 \times 4 \times 5 + 6 + 7 \times 8 \times 9. \\
632 &= 1 \times 2^3 + 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
633 &= 1 + 2^3 + 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
634 &= 1 + 2 + 3^4 + 5 + 67 \times 8 + 9. \\
635 &= 123 \times 4 + 56 + 78 + 9. \\
636 &= 123 \times 4 + 5 + 67 + 8 \times 9. \\
637 &= 1 \times 2^3 \times 4 \times 5 + 6 \times 78 + 9. \\
638 &= 1 + 2^3 \times 4 \times 5 + 6 \times 78 + 9. \\
639 &= 12 + 3 + 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
640 &= 1^{234} + 567 + 8 \times 9. \\
641 &= 1 \times 234 + 5 \times 67 + 8 \times 9. \\
642 &= 123 + 4 + 5 + 6 + 7 \times 8 \times 9. \\
643 &= 1 \times 234 + 56 + 7 + 8 + 9. \\
644 &= 123 + 456 + 7 \times 8 + 9. \\
645 &= 123 + 45 + 6 \times 78 + 9. \\
646 &= 1^2 \times 3 + 4 + 567 + 8 \times 9. \\
647 &= 1 \times 2 + 3 \times 45 + 6 + 7 \times 8 \times 9. \\
648 &= 1 + 2 + 3 \times 45 + 6 + 7 \times 8 \times 9. \\
649 &= 1 + 2 + 3 + 4 + 567 + 8 \times 9. \\
650 &= 1 + 2 \times 3 + 4 + 567 + 8 \times 9. \\
651 &= 1 \times 2^3 + 4 + 567 + 8 \times 9. \\
652 &= 1 \times 2 \times 34 + 567 + 8 + 9. \\
653 &= 123 \times 4 + 5 + 67 + 89. \\
654 &= 1 + 2 + 3 \times 4 + 567 + 8 \times 9. \\
655 &= 1 + 2 + 3 + 4 \times 5 + 6 + 7 \times 89. \\
656 &= 1 + 2 \times 3 + 4 \times 5 + 6 + 7 \times 89. \\
657 &= 12 + 3 \times 45 + 6 + 7 \times 8 \times 9. \\
658 &= 123 + 456 + 7 + 8 \times 9. \\
659 &= 1 + 234 + 5 \times 67 + 89. \\
660 &= 12 \times 3 + 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
661 &= 123 + 4 + 5 \times 6 + 7 \times 8 \times 9. \\
662 &= 1 + 23 + 4 + 5 + 6 + 7 \times 89. \\
663 &= 12 + 3 \times 4 + 567 + 8 \times 9. \\
664 &= 12 + 3 + 4 \times 5 + 6 + 7 \times 89. \\
665 &= 1 \times 2 + 3 + 4 + 567 + 89. \\
666 &= 123 + 456 + 78 + 9. \\
667 &= 1 + 23 + 4 + 567 + 8 \times 9. \\
668 &= 1 + 2 + 3 \times 4 + 5 \times 6 + 7 \times 89. \\
669 &= 1 + 2^3 + 4 + 567 + 89. \\
670 &= 1 \times 2 + 3 \times 4 + 567 + 89. \\
671 &= 1 + 2 + 3 \times 4 + 567 + 89. \\
672 &= 1 \times 23 + 4 \times 5 + 6 + 7 \times 89. \\
673 &= 1 + 23 + 4 \times 5 + 6 + 7 \times 89. \\
674 &= 12 \times 3 + 4 + 5 + 6 + 7 \times 89. \\
675 &= 123 + 456 + 7 + 89. \\
676 &= 1 + 2 + 34 + 567 + 8 \times 9. \\
677 &= 1 + 23 \times 4 + 567 + 8 + 9. \\
678 &= 123 + 45 + 6 + 7 \times 8 \times 9. \\
679 &= 12 \times 3 + 4 + 567 + 8 \times 9. \\
680 &= 12 + 3 \times 4 + 567 + 89. \\
681 &= 1 + 23 + 4 + 5 \times 6 + 7 \times 89. \\
682 &= 1 \times 2 + 3 \times 45 + 67 \times 8 + 9. \\
683 &= 1 \times 23 + 4 + 567 + 89. \\
684 &= 1 + 23 + 4 + 567 + 89. \\
685 &= 12 + 34 + 567 + 8 \times 9. \\
686 &= 1 + 2 \times 34 \times 5 + 6 \times 7 \times 8 + 9. \\
687 &= 123 + 4 + 56 + 7 \times 8 \times 9. \\
688 &= 123 + 4 \times 5 + 67 \times 8 + 9. \\
689 &= 12 + 3 + 45 + 6 + 7 \times 89. \\
690 &= 12 \times 34 + 5 \times 6 \times 7 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
621 &= 9 + 87 \times 6 + 5 + 4^3 + 21. \\
622 &= 9 + 87 \times 6 + 5 + 43 \times 2 \times 1. \\
623 &= 9 + 8 + 7 \times 6 + 543 + 21. \\
624 &= (9 + 8 + 7 + 6) \times 5 \times 4 + 3 + 21. \\
625 &= 98 + 76 \times 5 + (4 + 3) \times 21. \\
626 &= 98 + 7 \times 6 + 54 \times 3^2 \times 1. \\
627 &= 9 \times 8 \times 7 + 6 + 54 + 3 \times 21. \\
628 &= (9 + 87) \times 6 + 5 \times 4 + 32 \times 1. \\
629 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 + 3 + 2 \times 1. \\
630 &= 9 \times 8 \times 7 + 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
631 &= 9 \times 8 + 7 + 6 + 543 + 2 + 1. \\
632 &= 9 + 8 \times 76 + 5 + 4 + 3 + 2 + 1. \\
633 &= 9 + 8 \times 76 + 5 + 4 + 3 \times 2 + 1. \\
634 &= 9 \times 8 + 76 + 54 \times 3^2 \times 1. \\
635 &= 9 + 8 \times 7 + 6 + 543 + 21. \\
636 &= 9 + 8 \times 76 + 5 + 4 \times 3 + 2 \times 1. \\
637 &= 9 + 8 \times 76 + 5 + 4 \times 3 + 2 + 1. \\
638 &= 9 + 8 + 76 + 543 + 2 \times 1. \\
639 &= 9 + 8 + 76 + 543 + 2 + 1. \\
640 &= 98 + 7 \times (65 + 4 \times 3) + 2 + 1. \\
641 &= (9 + 87) \times 6 + 5 \times (4 + 3 \times (2 + 1)). \\
642 &= 9 + 8 \times 76 + 5 \times 4 + 3 + 2 \times 1. \\
643 &= 9 + 8 \times 76 + 5 \times 4 + 3 + 2 + 1. \\
644 &= 9 + 8 \times 76 + 5 \times 4 + 3 \times 2 + 1. \\
645 &= (98 + 7) \times 6 + 5 + 4 + 3 + 2 + 1. \\
646 &= 9 + 8 \times 76 + 5 + 4 \times 3 \times 2 \times 1. \\
647 &= 9 + 87 + 6 + 543 + 2 \times 1. \\
648 &= 9 + 87 + 6 + 543 + 2 + 1. \\
649 &= 9 \times 8 + 7 + 6 + 543 + 21. \\
650 &= 9 + 8 \times 76 + 5 + 4 + 3 + 21. \\
651 &= 9 + 87 \times 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
652 &= 9 + 87 \times 6 + 5 \times 4 \times 3 \times 2 + 1. \\
653 &= 9 + 8 \times 7 \times (6 + 5) + 4 + 3 + 2 + 1. \\
654 &= 9 \times 8 \times 7 + 65 + 4^3 + 21. \\
655 &= 9 + 8 \times 76 + 5 + 4 \times 3 + 21. \\
656 &= 98 + 7 + 6 + 543 + 2 \times 1. \\
657 &= 98 + 7 + 6 + 543 + 2 + 1. \\
658 &= 9 + 8 \times 76 + 5 + 4 + 32 \times 1. \\
659 &= 9 + 8 \times 76 + 5 + 4 + 32 + 1. \\
660 &= 9 \times 8 + 7 \times 6 + 543 + 2 + 1. \\
661 &= 9 + 8 \times 76 + 5 \times 4 + 3 + 21. \\
662 &= 9 \times 8 \times 7 + 6 \times 5 + 4 \times 32 \times 1. \\
663 &= 9 \times 8 \times 7 + 6 \times 5 + 4 \times 32 + 1. \\
664 &= 9 + 87 \times 6 + 5 + 4 \times 32 \times 1. \\
665 &= 9 + 87 \times 6 + 5 + 4 \times 32 + 1. \\
666 &= 9 + 87 + 6 + 543 + 21. \\
667 &= 9 + 8 \times 76 + 5 + 43 + 2 \times 1. \\
668 &= 9 + 8 \times 76 + 5 + 43 + 2 + 1. \\
669 &= 9 + 8 \times 7 \times 6 + 54 \times 3 \times 2 \times 1. \\
670 &= 9 + 8 \times 7 \times 6 + 54 \times 3 \times 2 + 1. \\
671 &= 9 + 8 + 7 + 6 + 5 \times 4 \times 32 + 1. \\
672 &= 9 + 8 \times (76 + 5) + 4 \times 3 + 2 + 1. \\
673 &= 9 + 8 \times (7 + 65 + 4 + 3 \times 2 + 1). \\
674 &= 9 \times 8 \times 7 + 6 + 54 \times 3 + 2 \times 1. \\
675 &= 98 + 7 + 6 + 543 + 21. \\
676 &= 9 + 8 \times 76 + 54 + 3 + 2 \times 1. \\
677 &= 9 + 8 \times 76 + 54 + 3 + 2 + 1. \\
678 &= 9 + 8 \times 76 + 54 + 3 \times 2 + 1. \\
679 &= 9 + 8 \times 76 + 5 \times 4 \times 3 + 2 \times 1. \\
680 &= 9 + 8 \times 76 + 5 \times 4 \times 3 + 2 + 1. \\
681 &= 98 + 7 \times 65 + 4 \times 32 \times 1. \\
682 &= 98 + 7 \times 65 + 4 \times 32 + 1. \\
683 &= 9 + 8 + 7 + 654 + 3 + 2 \times 1. \\
684 &= 9 + 8 + 7 + 654 + 3 + 2 + 1. \\
685 &= 9 + 8 + 7 + 654 + 3 \times 2 + 1. \\
686 &= 98 + 7 \times 6 + 543 + 2 + 1. \\
687 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 + 3 \times 21. \\
688 &= 9 + 8 + 7 + 654 + 3^2 + 1. \\
689 &= 9 + 8 \times 76 + 5 + 4 + 3 \times 21. \\
690 &= 9 + 8 + 7 \times 6 + 5^4 + 3 \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
691 &= 1 \times 2 + 3 \times 4 \times 5 + 6 + 7 \times 89. \\
692 &= 1 \times 2 + 34 + 567 + 89. \\
693 &= 1 + 2 + 34 + 567 + 89. \\
694 &= 1 + 2 + 3 \times 4 + 56 + 7 \times 89. \\
695 &= 123 + 4 \times (56 + 78 + 9). \\
696 &= 12 \times 3 + 4 + 567 + 89. \\
697 &= 1 \times 23 + 45 + 6 + 7 \times 89. \\
698 &= 12 + 3 + 4 + 56 + 7 \times 89. \\
699 &= 12 + 34 + 5 \times 6 + 7 \times 89. \\
700 &= 1^2 + 3 + 4 + 5 + 678 + 9. \\
701 &= 1 \times 2 + 3 + 4 + 5 + 678 + 9. \\
702 &= 12 + 34 + 567 + 89. \\
703 &= 12 + 3 \times 4 + 56 + 7 \times 89. \\
704 &= 12 \times 3 \times 4 + 56 + 7 \times 8 \times 9. \\
705 &= 1 + 2^3 + 4 + 5 + 678 + 9. \\
706 &= 1 \times 23 + 4 + 56 + 7 \times 89. \\
707 &= 1 + 23 + 4 + 56 + 7 \times 89. \\
708 &= 1 + 2 \times 34 + 567 + 8 \times 9. \\
709 &= 1^{2345} + 6 + 78 \times 9. \\
710 &= 12 \times 3 + 45 + 6 + 7 \times 89. \\
711 &= 123 + 4 + 567 + 8 + 9. \\
712 &= 1 \times 2 + 3 + 4 \times 5 + 678 + 9. \\
713 &= 123 + 45 + 67 \times 8 + 9. \\
714 &= 1 + 2 \times 3 + 4 \times 5 + 678 + 9. \\
715 &= 1 \times 234 + 56 \times 7 + 89. \\
716 &= 1 + 234 + 56 \times 7 + 89. \\
717 &= 1 + 234 + 5 + 6 \times 78 + 9. \\
718 &= 1 + 2 + 34 \times 5 + 67 \times 8 + 9. \\
719 &= 123 \times 4 + 5 \times 6 \times 7 + 8 + 9. \\
720 &= 1 + 23 + 4 + 5 + 678 + 9. \\
721 &= 1 + 2 \times 345 + 6 + 7 + 8 + 9. \\
722 &= 12 + 3 + 4 \times 5 + 678 + 9. \\
723 &= 1 + 2 + 3 + 4 + 5 + 6 + 78 \times 9. \\
724 &= 1 \times 2 \times 34 + 567 + 89. \\
725 &= 12 + 34 + 56 + 7 \times 89. \\
726 &= 1 \times 23 \times 4 + 5 + 6 + 7 \times 89. \\
727 &= 12 + 34 \times 5 + 67 \times 8 + 9. \\
728 &= 1 \times 2 + 34 + 5 + 678 + 9. \\
729 &= 1 + 2 + 34 + 5 + 678 + 9. \\
730 &= 1 \times 23 + 4 \times 5 + 678 + 9. \\
731 &= 1 + 23 + 4 \times 5 + 678 + 9. \\
732 &= 12 \times 3 + 4 + 5 + 678 + 9. \\
733 &= 1 \times 2 + 3 + 4 \times 5 + 6 + 78 \times 9. \\
734 &= 1 + 2 + 3 + 4 \times 5 + 6 + 78 \times 9. \\
735 &= 1 + 2 \times 3 + 4 \times 5 + 6 + 78 \times 9. \\
736 &= 1 \times 2 + 3^4 + 5 \times 6 + 7 \times 89. \\
737 &= 1 \times 2 + 3 + 45 + 678 + 9. \\
738 &= 12 + 34 + 5 + 678 + 9. \\
739 &= 1 + 2 \times 3 + 45 + 678 + 9. \\
740 &= 1 \times 23 + 4 + 5 + 6 + 78 \times 9. \\
741 &= 1 + 23 + 4 + 5 + 6 + 78 \times 9. \\
742 &= 1 + 2 + 3 + 4 + 5 \times 6 + 78 \times 9. \\
743 &= 12 \times 3 + 4 \times 5 + 678 + 9. \\
744 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 + 7 + 8 + 9. \\
745 &= 1 \times 23 \times 4 + 5 \times 6 + 7 \times 89. \\
746 &= 1 + 23 \times 4 + 5 \times 6 + 7 \times 89. \\
747 &= 12 + 3 + 45 + 678 + 9. \\
748 &= 1 \times 23 \times 4 + 567 + 89. \\
749 &= 1 + 23 \times 4 + 567 + 89. \\
750 &= 1 + 2 + 34 + 5 + 6 + 78 \times 9. \\
751 &= 12 + 3 + 4 + 5 \times 6 + 78 \times 9. \\
752 &= 1 + 23 + 4 \times 5 + 6 + 78 \times 9. \\
753 &= 12 \times 3 + 4 + 5 + 6 + 78 \times 9. \\
754 &= 1 + 2 + 3 \times 4 \times 56 + 7 + 8 \times 9. \\
755 &= 1 \times 23 + 45 + 678 + 9. \\
756 &= 1 + 23 + 45 + 678 + 9. \\
757 &= 1 + 2 \times 3 \times 4 + 5 \times 6 + 78 \times 9. \\
758 &= 1 \times 2 + 3 + 45 + 6 + 78 \times 9. \\
759 &= 12 + 34 + 5 + 6 + 78 \times 9. \\
760 &= 12 \times 34 + 5 \times 67 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
691 &= 9 \times 8 \times 7 + 6 + 5 \times 4 \times 3^2 + 1. \\
692 &= (98 + 7) \times 6 + 5 \times 4 \times 3 + 2 \times 1. \\
693 &= 9 \times 8 + 76 + 543 + 2 \times 1. \\
694 &= 9 \times 8 + 76 + 543 + 2 + 1. \\
695 &= 9 + 87 \times 6 + 54 \times 3 + 2 \times 1. \\
696 &= 9 + 87 \times 6 + 54 \times 3 + 2 + 1. \\
697 &= 9 \times 8 \times 7 + 65 + 4 \times 32 \times 1. \\
698 &= 9 \times 8 \times 7 + 65 + 4 \times 32 + 1. \\
699 &= 9 + 8 + 7 \times 6 + 5 \times 4 \times 32 \times 1. \\
700 &= 9 + 8 \times 76 + 5 \times 4 + 3 \times 21. \\
701 &= 9 + 8 \times 7 + 6 + 5^4 + 3 + 2 \times 1. \\
702 &= 9 + 8 + 7 + 654 + 3 + 21. \\
703 &= 9 + 8 \times 7 + 6 + 5^4 + 3 \times 2 + 1. \\
704 &= 98 + 7 \times 6 + 543 + 21. \\
705 &= 9 + 8 \times 7 + 6 + 5^4 + 3^2 \times 1. \\
706 &= 98 \times 7 + 6 + 5 + 4 + 3 + 2 \times 1. \\
707 &= 98 \times 7 + 6 + 5 + 4 + 3 + 2 + 1. \\
708 &= 98 \times 7 + 6 + 5 + 4 + 3 \times 2 + 1. \\
709 &= (98 + 7 \times 6) \times 5 + 4 + 3 + 2 \times 1. \\
710 &= 9 + 8 \times 7 + 6 \times 54 + 321. \\
711 &= 9 + 8 + 7 + 654 + 32 + 1. \\
712 &= 9 \times 8 + 76 + 543 + 21. \\
713 &= (98 + 7 + 65) \times 4 + 32 + 1. \\
714 &= 9 + 87 \times 6 + 54 \times 3 + 21. \\
715 &= 9 \times 8 + 7 \times 6 \times 5 + 432 + 1. \\
716 &= 9 + 8 + 7 \times 6 + 5^4 + 32 \times 1. \\
717 &= 98 \times 7 + 6 + 5 \times 4 + 3 + 2 \times 1. \\
718 &= 98 \times 7 + 6 + 5 \times 4 + 3 + 2 + 1. \\
719 &= 98 \times 7 + 6 + 5 \times 4 + 3 \times 2 + 1. \\
720 &= 98 + 76 + 543 + 2 + 1. \\
721 &= 98 \times 7 + 6 + 5 + 4 \times 3 \times 2 \times 1. \\
722 &= 98 \times 7 + 6 + 5 + 4 \times 3 \times 2 + 1. \\
723 &= 9 + 8 + 76 + 5^4 + 3 + 2 \times 1. \\
724 &= 9 + 8 \times 7 + 654 + 3 + 2 \times 1. \\
725 &= 9 + 8 \times 7 + 654 + 3 + 2 + 1. \\
726 &= 98 \times 7 + 6 \times 5 + 4 + 3 + 2 + 1. \\
727 &= 98 \times 7 + 6 \times 5 + 4 + 3 \times 2 + 1. \\
728 &= 9 \times 8 \times 7 + 6 + 5 \times 43 + 2 + 1. \\
729 &= 9 + 8 \times 7 + 654 + 3^2 + 1. \\
730 &= 98 \times 7 + 6 \times 5 + 4 \times 3 + 2 \times 1. \\
731 &= 98 \times 7 + 6 \times 5 + 4 \times 3 + 2 + 1. \\
732 &= 9 + 87 + 6 + 5^4 + 3 + 2 \times 1. \\
733 &= 98 \times 7 + 6 + 5 + 4 + 32 \times 1. \\
734 &= 98 \times 7 + 6 + 5 + 4 + 32 + 1. \\
735 &= 9 \times (8 + 7 + 6) + 543 + 2 + 1. \\
736 &= 98 \times 7 + 6 + 5 \times 4 + 3 + 21. \\
737 &= 9 + 8 \times 76 + 5 \times 4 \times 3 \times 2 \times 1. \\
738 &= 98 + 76 + 543 + 21. \\
739 &= 9 \times 8 + 7 + 654 + 3 + 2 + 1. \\
740 &= 98 \times 7 + 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
741 &= 98 \times 7 + 6 \times 5 + 4 \times 3 \times 2 + 1. \\
742 &= 98 \times 7 + 6 + 5 + 43 + 2 \times 1. \\
743 &= 98 \times 7 + 6 + 5 + 43 + 2 + 1. \\
744 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
745 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
746 &= 9 \times 8 \times 7 + 6 + 5 \times 43 + 21. \\
747 &= 9 + 8 + 7 \times 6 + 5^4 + 3 \times 21. \\
748 &= 9 + 87 \times 6 + 5 \times 43 + 2 \times 1. \\
749 &= 9 + 87 \times 6 + 5 \times 43 + 2 + 1. \\
750 &= 98 + 7 + 6 \times 54 + 321. \\
751 &= 98 \times 7 + 6 + 54 + 3 + 2 \times 1. \\
752 &= 98 \times 7 + 6 + 54 + 3 + 2 + 1. \\
753 &= 98 \times 7 + 6 + 54 + 3 \times 2 + 1. \\
754 &= 98 \times 7 + 6 + 5 \times 4 \times 3 + 2 \times 1. \\
755 &= 9 + 87 + 654 + 3 + 2 \times 1. \\
756 &= 9 + 87 + 654 + 3 + 2 + 1. \\
757 &= 9 + 87 + 654 + 3 \times 2 + 1. \\
758 &= (9 + 8) \times 7 \times 6 + 5 \times 4 + 3 + 21. \\
759 &= 9 + 87 + 654 + 3 \times (2 + 1). \\
760 &= 98 \times 7 + 65 + 4 + 3 + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
761 &= 1 + 2 \times 34 + 5 + 678 + 9. \\
762 &= 1 + 2 \times 345 + 6 + 7 \times 8 + 9. \\
763 &= 12 + 3 \times 4 \times 56 + 7 + 8 \times 9. \\
764 &= 12 \times 3 + 4 \times 5 + 6 + 78 \times 9. \\
765 &= 1 + 2^3 \times 4 + 5 \times 6 + 78 \times 9. \\
766 &= 123 + 4 + 567 + 8 \times 9. \\
767 &= 1 \times 2 + 3 + 4 + 56 + 78 \times 9. \\
768 &= 12 \times 3 + 45 + 678 + 9. \\
769 &= 1 + 2 + 34 + 5 \times 6 + 78 \times 9. \\
770 &= 1 \times 2 + 3 \times 4 \times 56 + 7 + 89. \\
771 &= 12 + 3 \times 4 \times 56 + 78 + 9. \\
772 &= 123 + 4 \times 5 + 6 + 7 \times 89. \\
773 &= 1 + 2 + 3 \times 4 + 56 + 78 \times 9. \\
774 &= 1 \times 2 \times 345 + 67 + 8 + 9. \\
775 &= 1 + 2 \times 345 + 67 + 8 + 9. \\
776 &= 12 + 3 \times 45 + 6 + 7 \times 89. \\
777 &= 12 + 3 + 4 + 56 + 78 \times 9. \\
778 &= 12 + 34 + 5 \times 6 + 78 \times 9. \\
779 &= 12 \times 3 + 4 \times 5 \times 6 + 7 \times 89. \\
780 &= 123 + 4 + 5 \times 6 + 7 \times 89. \\
781 &= 1 \times 2 \times 34 + 5 + 6 + 78 \times 9. \\
782 &= 12 + 3 \times 4 + 56 + 78 \times 9. \\
783 &= 123 + 4 + 567 + 89. \\
784 &= 1 + 2 \times 345 + 6 + 78 + 9. \\
785 &= 1 + 23 \times 4 + 5 + 678 + 9. \\
786 &= 1 + 23 + 4 + 56 + 78 \times 9. \\
787 &= (1 \times 2 + 3) \times 4 \times 5 + 678 + 9. \\
788 &= (1 + 23) \times 4 + 5 + 678 + 9. \\
789 &= 12 \times 3 + 45 + 6 + 78 \times 9. \\
790 &= 1 \times 2^3 \times 4 + 56 + 78 \times 9. \\
791 &= 123 \times 4 + 5 \times 6 \times 7 + 89. \\
792 &= 1 \times 2 \times 345 + 6 + 7 + 89. \\
793 &= 1 + 2 \times 345 + 6 + 7 + 89. \\
794 &= 1 \times 2 + 34 + 56 + 78 \times 9. \\
795 &= 1 + 2 + 34 + 56 + 78 \times 9. \\
796 &= 1 \times 2 + 3^4 + 5 + 6 + 78 \times 9. \\
797 &= 123 + 45 + 6 + 7 \times 89. \\
798 &= 12 \times 3 + 4 + 56 + 78 \times 9. \\
799 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 + 7 + 8 \times 9. \\
800 &= 12 \times 3 \times 4 + 567 + 89. \\
801 &= 1 + 2 \times 34 + 5 \times 6 + 78 \times 9. \\
802 &= 1 + 2 + 34 \times 5 + 6 + 7 \times 89. \\
803 &= 12 \times 34 + 5 + 6 \times (7 \times 8 + 9). \\
804 &= 12 + 34 + 56 + 78 \times 9. \\
805 &= 1 + 2 \times 345 + 6 + 7 + 8 \times 9. \\
806 &= 123 + 4 + 56 + 7 \times 89. \\
807 &= 1 \times 2 \times 3 \times 4 \times 5 + 678 + 9. \\
808 &= 1 + 2 \times 3 \times 4 \times 5 + 678 + 9. \\
809 &= 1 \times 2 + 3 + 4 + 5 + 6 + 789. \\
810 &= 1 + 2 + 3 + 4 + 5 + 6 + 789. \\
811 &= 12 + 34 \times 5 + 6 + 7 \times 89. \\
812 &= 1 \times 2^3 + 4 + 5 + 6 + 789. \\
813 &= 12 \times 3 \times 4 \times 5 + 6 + 78 + 9. \\
814 &= 1 \times 2 + 3 \times 4 + 5 + 6 + 789. \\
815 &= 12 \times 34 + 5 \times 67 + 8 \times 9. \\
816 &= 1 + 2 \times 3 \times 45 + 67 \times 8 + 9. \\
817 &= 12 \times 34 + 56 \times 7 + 8 + 9. \\
818 &= 1 + 2 \times 34 \times 5 + 6 \times 78 + 9. \\
819 &= 123 + 4 + 5 + 678 + 9. \\
820 &= 1 \times 2 + 3 + 4 \times 5 + 6 + 789. \\
821 &= 1 + 2 + 3 + 4 \times 5 + 6 + 789. \\
822 &= 1 + 2 \times 345 + 6 \times 7 + 89. \\
823 &= 12 \times 3 \times 4 + 56 + 7 \times 89. \\
824 &= 12 + 3 \times 4 + 5 + 6 + 789. \\
825 &= 1 + 2 + 3 \times 45 + 678 + 9. \\
826 &= 1 \times 2 \times 34 + 56 + 78 \times 9. \\
827 &= 1 + 2 \times 34 + 56 + 78 \times 9. \\
828 &= 1 + 23 + 4 + 5 + 6 + 789. \\
829 &= 1 + 2 + 3 + 4 + 5 \times 6 + 789. \\
830 &= 123 + 4 \times 5 + 678 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
761 &= 98 \times 7 + 65 + 4 + 3 + 2 + 1. \\
762 &= 98 \times 7 + 65 + 4 + 3 \times 2 + 1. \\
763 &= 98 \times 7 + 6 + 5 + 4^3 + 2 \times 1. \\
764 &= 98 + 7 + 654 + 3 + 2 \times 1. \\
765 &= 98 + 7 + 654 + 3 + 2 + 1. \\
766 &= 98 \times 7 + 65 + 4 \times 3 + 2 + 1. \\
767 &= 9 + 87 \times 6 + 5 \times 43 + 21. \\
768 &= 98 + 7 + 6 + 5^4 + 32 \times 1. \\
769 &= 9 \times 8 \times 7 + 65 \times 4 + 3 + 2 \times 1. \\
770 &= 9 \times 8 \times 7 + 65 \times 4 + 3 + 2 + 1. \\
771 &= 9 \times 8 \times 7 + 65 \times 4 + 3 \times 2 + 1. \\
772 &= 9 \times 8 + 7 \times 6 + 5^4 + 32 + 1. \\
773 &= 98 \times 7 + 6 + 5 \times 4 \times 3 + 21. \\
774 &= 9 + 87 + 654 + 3 + 21. \\
775 &= 98 \times 7 + 65 + 4 \times 3 \times 2 \times 1. \\
776 &= 98 \times 7 + 65 + 4 \times 3 \times 2 + 1. \\
777 &= 9 \times 8 + 76 \times 5 + 4 + 321. \\
778 &= 98 \times 7 + 6 + 54 + 32 \times 1. \\
779 &= 98 \times 7 + 6 + 54 + 32 + 1. \\
780 &= 98 \times 7 + 6 \times 5 + 43 + 21. \\
781 &= 9 + 8 \times 76 + 54 \times 3 + 2 \times 1. \\
782 &= 9 + 8 \times 76 + 54 \times 3 + 2 + 1. \\
783 &= 98 + 7 + 654 + 3 + 21. \\
784 &= 98 \times 7 + 65 + 4 \times 3 + 21. \\
785 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
786 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
787 &= 98 \times 7 + 65 + 4 + 32 \times 1. \\
788 &= 9 \times 8 \times 7 + 65 \times 4 + 3 + 21. \\
789 &= 9 \times 8 + 76 + 5 \times 4 \times 32 + 1. \\
790 &= 9 + 87 + 6 + 5^4 + 3 \times 21. \\
791 &= 9 + 8 + 765 + 4 + 3 + 2 \times 1. \\
792 &= 9 + 8 + 765 + 4 + 3 + 2 + 1. \\
793 &= 9 + 8 + 765 + 4 + 3 \times 2 + 1. \\
794 &= 9 + 8 + (7 + 6 + 5) \times 43 + 2 + 1. \\
795 &= 9 + 8 + 765 + 4 + 3^2 \times 1. \\
796 &= 9 + 8 + 765 + 4 \times 3 + 2 \times 1. \\
797 &= 9 + 8 + 765 + 4 \times 3 + 2 + 1. \\
798 &= 98 + 7 \times 6 + 5^4 + 32 + 1. \\
799 &= 9 \times 8 + 7 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
800 &= 9 + 8 \times 76 + 54 \times 3 + 21. \\
801 &= 98 \times 7 + 6 \times 5 + 4^3 + 21. \\
802 &= 98 \times 7 + 6 \times 5 + 43 \times 2 \times 1. \\
803 &= 9 \times 87 + 6 + 5 + 4 + 3 + 2 \times 1. \\
804 &= 9 \times 87 + 6 + 5 + 4 + 3 + 2 + 1. \\
805 &= 9 \times 87 + 6 + 5 + 4 + 3 \times 2 + 1. \\
806 &= 9 + 8 + 7 + 65 \times 4 \times 3 + 2 \times 1. \\
807 &= 9 + 8 + 7 + 65 \times 4 \times 3 + 2 + 1. \\
808 &= 9 \times 87 + 6 + 5 + 4 \times 3 + 2 \times 1. \\
809 &= 98 \times 7 + 6 + 54 + 3 \times 21. \\
810 &= 9 + 8 + 765 + 4 + 3 + 21. \\
811 &= 98 \times 7 + 6 \times 5 \times 4 + 3 + 2 \times 1. \\
812 &= 98 \times 7 + 6 \times 5 \times 4 + 3 + 2 + 1. \\
813 &= 9 + 87 + 654 + 3 \times 21. \\
814 &= 9 \times 87 + 6 + 5 \times 4 + 3 + 2 \times 1. \\
815 &= 98 \times 7 + 65 + 43 + 21. \\
816 &= 9 + 87 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
817 &= 9 + 87 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
818 &= 9 + 8 + 765 + 4 + 32 \times 1. \\
819 &= 9 + 8 + 765 + 4 + 32 + 1. \\
820 &= 98 + 7 + 65 \times (4 + 3 \times 2 + 1). \\
821 &= 9 \times 8 \times 7 + 65 + 4 \times 3 \times 21. \\
822 &= 98 + 7 + 654 + 3 \times 21. \\
823 &= 9 \times 87 + 6 \times 5 + 4 + 3 + 2 + 1. \\
824 &= 9 \times 87 + 6 \times 5 + 4 + 3 \times 2 + 1. \\
825 &= 98 + 7 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
826 &= 98 + 7 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
827 &= 9 + 8 + 765 + 43 + 2 \times 1. \\
828 &= 9 + 8 + 765 + 43 + 2 + 1. \\
829 &= 9 + 8 + 76 \times 5 + 432 \times 1. \\
830 &= 98 \times 7 + 6 \times 5 \times 4 + 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
831 &= 1 + 2^3 + 4 \times 5 \times 6 + 78 \times 9. \\
832 &= 12 \times 34 + 5 \times 67 + 89. \\
833 &= 1 \times 2 + 3 \times 4 + 5 \times 6 + 789. \\
834 &= 12 + 345 + 6 \times 78 + 9. \\
835 &= 1^2 + 34 + 5 + 6 + 789. \\
836 &= 12 \times 3 \times 4 + 5 + 678 + 9. \\
837 &= 1 + 2 + 34 + 5 + 6 + 789. \\
838 &= 12 + 3 + 4 + 5 \times 6 + 789. \\
839 &= 1 + 23 + 4 \times 5 + 6 + 789. \\
840 &= 12 \times 3 + 4 + 5 + 6 + 789. \\
841 &= 1 \times 2 + 3^4 + 56 + 78 \times 9. \\
842 &= 123 \times 4 + 5 + 6 \times 7 \times 8 + 9. \\
843 &= 12 + 3 \times 4 + 5 \times 6 + 789. \\
844 &= 123 \times 4 + 5 \times 67 + 8 + 9. \\
845 &= 1 \times 2 + 3 \times 45 + 6 + 78 \times 9. \\
846 &= 12 + 34 + 5 + 6 + 789. \\
847 &= 1 + 2 \times 345 + 67 + 89. \\
848 &= 1 \times 2^3 + 45 + 6 + 789. \\
849 &= 1 + 2^3 + 45 + 6 + 789. \\
850 &= 1 \times 23 \times 4 + 56 + 78 \times 9. \\
851 &= 123 + 4 \times 56 + 7 \times 8 \times 9. \\
852 &= 1 \times 2 + 3 + 4 \times 56 + 7 \times 89. \\
853 &= 1 + 2 + 3 + 4 \times 56 + 7 \times 89. \\
854 &= 1 \times 2 + 3 + 4 + 56 + 789. \\
855 &= 123 + 45 + 678 + 9. \\
856 &= 1 + 2 + 34 + 5 \times 6 + 789. \\
857 &= 12 \times 3 \times 4 + 5 + 6 + 78 \times 9. \\
858 &= 1 + 2 + 345 + 6 + 7 \times 8 \times 9. \\
859 &= 12 \times 3 + 4 + 5 \times 6 + 789. \\
860 &= 1 + 2 + 3 \times 4 + 56 + 789. \\
861 &= 1^2 + 3 + 4 \times 5 \times 6 \times 7 + 8 + 9. \\
862 &= 12 + 3 + 4 \times 56 + 7 \times 89. \\
863 &= 1 + 2 + 3 + 4 \times 5 \times 6 \times 7 + 8 + 9. \\
864 &= 12 + 3 + 4 + 56 + 789. \\
865 &= 12 + 34 + 5 \times 6 + 789. \\
866 &= 123 + 4 \times 5 \times 6 + 7 \times 89. \\
867 &= 12 + 345 + 6 + 7 \times 8 \times 9. \\
868 &= 1 \times 234 + 5 + 6 + 7 \times 89. \\
869 &= 12 + 3 \times 4 + 56 + 789. \\
870 &= 1 + 2 \times 3 \times 4 + 56 + 789. \\
871 &= 1 + 23 + 4 \times 56 + 7 \times 89. \\
872 &= 12 \times 34 + 56 \times 7 + 8 \times 9. \\
873 &= 1 + 23 + 4 + 56 + 789. \\
874 &= 1 + 234 + 567 + 8 \times 9. \\
875 &= 1 \times 2 \times 3^4 + 5 + 6 + 78 \times 9. \\
876 &= 12 \times 3 + 45 + 6 + 789. \\
877 &= 1 \times 2 + 3 \times 45 \times 6 + 7 \times 8 + 9. \\
878 &= 1 + 2 + 3 \times 45 \times 6 + 7 \times 8 + 9. \\
879 &= 1^2 + 34 \times 5 + 6 + 78 \times 9. \\
880 &= 1 \times 2 + 34 \times 5 + 6 + 78 \times 9. \\
881 &= 1 \times 2 + 34 + 56 + 789. \\
882 &= 1 + 2 + 34 + 56 + 789. \\
883 &= 12 \times 3 + 4 \times 56 + 7 \times 89. \\
884 &= 1 + 2 + 3^4 + 5 + 6 + 789. \\
885 &= 123 + 4 + 56 + 78 \times 9. \\
886 &= 1 + 2 \times 34 \times 5 + 67 \times 8 + 9. \\
887 &= 12 + 3 \times 45 \times 6 + 7 \times 8 + 9. \\
888 &= 1 + 234 + 5 \times 6 + 7 \times 89. \\
889 &= 12 \times 34 + 56 \times 7 + 89. \\
890 &= 12 + 34 \times 5 + 6 + 78 \times 9. \\
891 &= 12 + 34 + 56 + 789. \\
892 &= 1 \times 23 \times 4 + 5 + 6 + 789. \\
893 &= 1 + 23 \times 4 + 5 + 6 + 789. \\
894 &= 12 + 3^4 \times 5 + 6 \times 78 + 9. \\
895 &= 1 + 2 \times 3^4 + 5 \times 6 + 78 \times 9. \\
896 &= 1 + 2 \times 3^4 \times 5 + 6 + 7 + 8 \times 9. \\
897 &= 123 + 45 \times 6 + 7 \times 8 \times 9. \\
898 &= 1 \times 2 + 3 + 45 \times 6 + 7 \times 89. \\
899 &= 123 \times 4 + 5 \times 67 + 8 \times 9. \\
900 &= 1 + 2 \times 3 + 45 \times 6 + 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
831 &= 9 \times 87 + 6 + 5 + 4 + 32 + 1. \\
832 &= 9 + 8 \times 7 \times 6 + 54 \times 3^2 + 1. \\
833 &= 9 \times 8 \times 7 + 6 \times 54 + 3 + 2 \times 1. \\
834 &= 9 \times 8 \times 7 + 6 \times 54 + 3 + 2 + 1. \\
835 &= 9 + 8 \times 76 + 5 \times 43 + 2 + 1. \\
836 &= 98 \times 7 + 65 + 4^3 + 21. \\
837 &= 9 \times 87 + 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
838 &= 9 \times 87 + 6 \times 5 + 4 \times 3 \times 2 + 1. \\
839 &= 9 \times 87 + 6 + 5 + 43 + 2 \times 1. \\
840 &= 9 \times 87 + 6 + 5 + 43 + 2 + 1. \\
841 &= 9 \times 87 + 6 \times 5 + 4 + 3 + 21. \\
842 &= 9 \times 87 + 6 + 5 \times 4 + 32 + 1. \\
843 &= 9 \times (8 + 7) \times 6 + 5 + 4 + 3 + 21. \\
844 &= 98 \times 7 + 6 \times 5 + 4 \times 32 \times 1. \\
845 &= 98 \times 7 + 6 \times 5 + 4 \times 32 + 1. \\
846 &= 9 + 8 + 765 + 43 + 21. \\
847 &= 9 \times 8 + 765 + 4 + 3 + 2 + 1. \\
848 &= 9 \times 8 + 765 + 4 + 3 \times 2 + 1. \\
849 &= 9 \times 87 + 6 + 54 + 3 + 2 + 1. \\
850 &= 9 \times 87 + 6 + 54 + 3 \times 2 + 1. \\
851 &= 9 \times 8 + 765 + 4 \times 3 + 2 \times 1. \\
852 &= 9 \times 8 + 765 + 4 \times 3 + 2 + 1. \\
853 &= 9 + 8 \times 76 + 5 \times 43 + 21. \\
854 &= 9 + 87 \times 6 + 5 \times 4^3 + 2 + 1. \\
855 &= 9 + 87 \times 6 + 54 \times 3 \times 2 \times 1. \\
856 &= 9 + 87 \times 6 + 54 \times 3 \times 2 + 1. \\
857 &= 98 \times 7 + 6 + 54 \times 3 + 2 + 1. \\
858 &= 9 \times 87 + 65 + 4 + 3 + 2 + 1. \\
859 &= 9 \times 87 + 6 \times 5 + 43 + 2 + 1. \\
860 &= 9 \times 8 \times 7 + 6 \times 54 + 32 \times 1. \\
861 &= 9 \times 8 + 765 + 4 \times 3 \times 2 \times 1. \\
862 &= 9 \times 8 + 7 + 65 \times 4 \times 3 + 2 + 1. \\
863 &= 9 \times 87 + 65 + 4 \times 3 + 2 + 1. \\
864 &= 9 + 8 + 7 \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
865 &= 9 \times 8 + 765 + 4 + 3 + 21. \\
866 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
867 &= 9 \times 87 + 6 + 54 + 3 + 21. \\
868 &= 9 + 8 + 765 + 43 \times 2 \times 1. \\
869 &= 98 \times 7 + 6 \times 5 \times 4 + 3 \times 21. \\
870 &= 9 \times 8 + 765 + 4 \times 3 + 21. \\
871 &= 9 \times (8 + 7) \times 6 + 54 + 3 \times 2 + 1. \\
872 &= 98 + 765 + 4 + 3 + 2 \times 1. \\
873 &= 98 + 765 + 4 + 3 + 2 + 1. \\
874 &= 98 + 765 + 4 + 3 \times 2 + 1. \\
875 &= 9 \times 87 + 6 + 54 + 32 \times 1. \\
876 &= 9 \times 87 + 65 + 4 + 3 + 21. \\
877 &= 98 + 765 + 4 \times 3 + 2 \times 1. \\
878 &= 98 + 765 + 4 \times 3 + 2 + 1. \\
879 &= 9 + 87 + 65 \times 4 \times 3 + 2 + 1. \\
880 &= 98 \times 7 + 65 + 4 \times 32 + 1. \\
881 &= 9 \times 87 + 65 + 4 \times 3 + 21. \\
882 &= 9 \times 8 + 765 + 43 + 2 \times 1. \\
883 &= 9 \times 8 + 765 + 43 + 2 + 1. \\
884 &= 9 \times 87 + 65 + 4 + 32 \times 1. \\
885 &= 9 \times 87 + 65 + 4 + 32 + 1. \\
886 &= 9 \times 87 + 6 + (5 + 43) \times 2 + 1. \\
887 &= 98 + 765 + 4 \times 3 \times 2 \times 1. \\
888 &= 98 + 765 + 4 \times 3 \times 2 + 1. \\
889 &= 9 + 8 + 7 \times 6 \times 5 \times 4 + 32 \times 1. \\
890 &= 9 + 8 + 7 \times 6 \times 5 \times 4 + 32 + 1. \\
891 &= 98 + 765 + 4 + 3 + 21. \\
892 &= 9 \times (87 + 6 + 5) + 4 + 3 + 2 + 1. \\
893 &= 9 \times 87 + 65 + 43 + 2 \times 1. \\
894 &= 9 \times 87 + 65 + 43 + 2 + 1. \\
895 &= (98 + 76) \times 5 + 4 \times 3 \times 2 + 1. \\
896 &= 98 + 765 + 4 \times 3 + 21. \\
897 &= 9 + 87 + 65 \times 4 \times 3 + 21. \\
898 &= 9 \times 87 + 6 \times 5 + 4^3 + 21. \\
899 &= 9 + 876 + 5 + 4 + 3 + 2 \times 1. \\
900 &= 98 + 765 + 4 + 32 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
901 &= 123 \times 4 + 56 \times 7 + 8 + 9. \\
902 &= 12 + 345 + 67 \times 8 + 9. \\
903 &= 1 + 2 + 3^4 + 5 \times 6 + 789. \\
904 &= 1 + 2 \times 3^4 + 5 \times 6 + 78 + 9. \\
905 &= 1 \times 2^3 \times 45 + 67 \times 8 + 9. \\
906 &= 1 + 2^3 \times 45 + 67 \times 8 + 9. \\
907 &= 1^2 + 3 \times 45 \times 6 + 7 + 89. \\
908 &= 12 + 3 + 45 \times 6 + 7 \times 89. \\
909 &= 12 + 3 \times 45 \times 6 + 78 + 9. \\
910 &= 12^3 + 4 \times 5 \times 6 + 789. \\
911 &= 1 \times 23 \times 4 + 5 \times 6 + 789. \\
912 &= 1 + 23 \times 4 + 5 \times 6 + 789. \\
913 &= 1 \times 2 \times 34 + 56 + 789. \\
914 &= 1 + 234 + 56 + 7 \times 89. \\
915 &= 1 \times 2 \times 3 \times 4 \times 5 + 6 + 789. \\
916 &= 123 \times 4 + 5 \times 67 + 89. \\
917 &= 1 + 23 + 45 \times 6 + 7 \times 89. \\
918 &= 12 + 3 \times 45 \times 6 + 7 + 89. \\
919 &= 1 + 2 \times 3 + 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
920 &= 1 \times 2 \times 3^4 + 56 + 78 \times 9. \\
921 &= 1 + 2^3 + 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
922 &= 1^2 + 345 + 6 \times (7 + 89). \\
923 &= 12 \times 34 + 5 + 6 + 7 \times 8 \times 9. \\
924 &= 12 + 3 + 4 \times 5 \times 6 + 789. \\
925 &= 1 + 2 \times 3^4 + 5 \times 6 \times 7 + 8 \times 9. \\
926 &= 1 \times 234 + 5 + 678 + 9. \\
927 &= 123 + 4 + 5 + 6 + 789. \\
928 &= 1 \times 2 + 3^4 + 56 + 789. \\
929 &= 12 \times 3 + 45 \times 6 + 7 \times 89. \\
930 &= 1^2 + 3 + 4 \times 56 + 78 \times 9. \\
931 &= 1 \times 2 + 3 + 4 \times 56 + 78 \times 9. \\
932 &= 1 \times 23 + 4 \times 5 \times 6 + 789. \\
933 &= 1 + 23 + 4 \times 5 \times 6 + 789. \\
934 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times 7 + 89. \\
935 &= 1 + 2 + 3 + 4 \times 5 \times 6 \times 7 + 89. \\
936 &= 1 + 2 \times 3 + 4 \times 5 \times 6 \times 7 + 89. \\
937 &= 1 \times 23 \times 4 + 56 + 789. \\
938 &= 123 + 4 \times 5 + 6 + 789. \\
939 &= 1 + 2 + 3 \times 4 \times (5 + 67) + 8 \times 9. \\
940 &= (1 \times 2 \times 34 + 56) \times 7 + 8 \times 9. \\
941 &= 12 + 3 + 4 \times 56 + 78 \times 9. \\
942 &= 12 + 3 \times 45 + 6 + 789. \\
943 &= (1 \times 23 \times 4 + 5 \times 6) \times 7 + 89. \\
944 &= 12 \times 3 \times 4 + 5 + 6 + 789. \\
945 &= 123 + 4 \times 5 \times 6 + 78 \times 9. \\
946 &= 123 + 4 + 5 \times 6 + 789. \\
947 &= 1 \times 234 + 5 + 6 + 78 \times 9. \\
948 &= 1 + 234 + 5 + 6 + 78 \times 9. \\
949 &= 1 \times 23 + 4 \times 56 + 78 \times 9. \\
950 &= 1 + 23 + 4 \times 56 + 78 \times 9. \\
951 &= 1^2 + 3^4 + 5 + 67 \times 8 + 9. \\
952 &= 1 \times 23 + 4 \times 5 \times 6 \times 7 + 89. \\
953 &= 1 + 23 + 4 \times 5 \times 6 \times 7 + 89. \\
954 &= 12 + 3 \times (45 + 6) + 789. \\
955 &= 1 \times 2^3 \times 4 \times 5 + 6 + 789. \\
956 &= 123 \times 4 + 56 \times 7 + 8 \times 9. \\
957 &= 1 \times 2 \times 3 \times 45 + 678 + 9. \\
958 &= 1 + 2 \times 3 \times 45 + 678 + 9. \\
959 &= 1 \times 23 \times 4 + (5 + 6) \times 78 + 9. \\
960 &= 12^3 \times 456 + 7 \times 8 \times 9. \\
961 &= 12^3 + 456 + 7 \times 8 \times 9. \\
962 &= 12 \times 3 + 4 \times 56 + 78 \times 9. \\
963 &= 123 + 45 + 6 + 789. \\
964 &= 1^2 + 3 + 456 + 7 \times 8 \times 9. \\
965 &= 12 \times 3 + 4 \times 5 \times 6 \times 7 + 89. \\
966 &= 1 + 2 + 3 + 456 + 7 \times 8 \times 9. \\
967 &= 1 + 234 + 5 \times 6 + 78 \times 9. \\
968 &= 12 \times 34 + 56 + 7 \times 8 \times 9. \\
969 &= 1 \times 2 \times 34 \times 5 + 6 + 7 \times 89. \\
970 &= 123 + 4 \times 56 + 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
901 &= 9 + 876 + 5 + 4 + 3 \times 2 + 1. \\
902 &= (9 + 8) \times 7 + 65 \times 4 \times 3 + 2 + 1. \\
903 &= 9 + 876 + 5 + 4 + 3 \times (2 + 1). \\
904 &= 9 + 876 + 5 + 4 \times 3 + 2 \times 1. \\
905 &= 9 + 876 + 5 + 4 \times 3 + 2 + 1. \\
906 &= 9 + 87 \times 6 + 54 + 321. \\
907 &= 9 \times (87 + 6 + 5) + 4 \times 3 \times 2 + 1. \\
908 &= 98 + 765 + 43 + 2 \times 1. \\
909 &= 98 + 765 + 43 + 2 + 1. \\
910 &= 98 \times 7 + 6 + 5 \times 43 + 2 + 1. \\
911 &= 9 + 876 + 5 \times 4 + 3 + 2 + 1. \\
912 &= 9 + 876 + 5 \times 4 + 3 \times 2 + 1. \\
913 &= 9 \times 87 + 6 \times 5 \times 4 + 3^2 + 1. \\
914 &= 9 + 876 + 5 + 4 \times 3 \times 2 \times 1. \\
915 &= 9 + 876 + 5 + 4 \times 3 \times 2 + 1. \\
916 &= (98 + 76) \times 5 + 43 + 2 + 1. \\
917 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 + 3 + 2 \times 1. \\
918 &= 9 + 876 + 5 + 4 + 3 + 21. \\
919 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
920 &= 9 + 8 + 7 \times 6 \times 5 \times 4 + 3 \times 21. \\
921 &= 9 \times (8 + 76) + 54 \times 3 + 2 + 1. \\
922 &= 9 \times 87 + 6 + 5 + 4 \times 32 \times 1. \\
923 &= 9 + 876 + 5 + 4 \times 3 + 21. \\
924 &= 9 \times 87 + 6 \times (5 \times 4 + 3) + 2 + 1. \\
925 &= 9 \times 8 \times 7 + 6 \times 5 \times (4 + 3) \times 2 + 1. \\
926 &= 9 + 876 + 5 + 4 \times 3^2 \times 1. \\
927 &= 98 + 765 + 43 + 21. \\
928 &= 98 \times 7 + 6 + 5 \times 43 + 21. \\
929 &= 9 + 876 + 5 \times 4 + 3 + 21. \\
930 &= 98 + 765 + 4 + 3 \times 21. \\
931 &= 9 + 876 + 5 \times (4 + 3 + 2) + 1. \\
932 &= (9 + 8) \times 7 \times 6 + 5 \times 43 + 2 + 1. \\
933 &= 9 \times 87 + 65 + 4^3 + 21. \\
934 &= 9 \times 87 + 65 + 43 \times 2 \times 1. \\
935 &= 9 + 876 + 5 + 43 + 2 \times 1. \\
936 &= 9 + 876 + 5 + 43 + 2 + 1. \\
937 &= 9 + 876 + 5 \times 4 + 32 \times 1. \\
938 &= 9 + 876 + 5 \times 4 + 32 + 1. \\
939 &= 9 + 8 \times 76 + 5 \times 4^3 + 2 \times 1. \\
940 &= 9 \times 8 \times 7 + 6 + 5 \times 43 \times 2 \times 1. \\
941 &= 9 + 8 \times 76 + 54 \times 3 \times 2 \times 1. \\
942 &= 9 + 8 \times 76 + 54 \times 3 \times 2 + 1. \\
943 &= 98 + 7 \times 6 \times 5 \times 4 + 3 + 2 \times 1. \\
944 &= 9 + 876 + 54 + 3 + 2 \times 1. \\
945 &= 9 + 876 + 54 + 3 + 2 + 1. \\
946 &= 9 + 876 + 54 + 3 \times 2 + 1. \\
947 &= 9 + 876 + 5 \times 4 \times 3 + 2 \times 1. \\
948 &= 9 + 876 + 5 \times 4 \times 3 + 2 + 1. \\
949 &= 98 + 765 + 43 \times 2 \times 1. \\
950 &= 98 + 765 + 43 \times 2 + 1. \\
951 &= 98 \times 7 + 65 \times 4 + 3 + 2 \times 1. \\
952 &= 98 \times 7 + 65 \times 4 + 3 + 2 + 1. \\
953 &= 9 \times 87 + 6 + 54 \times 3 + 2 \times 1. \\
954 &= 9 + 876 + 5 + 43 + 21. \\
955 &= 98 \times 7 + 65 \times 4 + 3^2 \times 1. \\
956 &= 9 + 876 + 5 + 4^3 + 2 \times 1. \\
957 &= 9 + 876 + 5 + 4 + 3 \times 21. \\
958 &= 9 + 8 \times 76 + 5 \times 4 + 321. \\
959 &= 9 \times 8 + 7 \times 65 + 432 \times 1. \\
960 &= 9 \times 8 + 7 \times 65 + 432 + 1. \\
961 &= 9 + 87 \times 6 + 5 \times 43 \times 2 \times 1. \\
962 &= 98 + 7 \times 6 \times 5 \times 4 + 3 + 21. \\
963 &= 9 + 876 + 54 + 3 + 21. \\
964 &= 98 + (7 + 65) \times 4 \times 3 + 2 \times 1. \\
965 &= 9 \times 8 + 765 + 4 \times 32 \times 1. \\
966 &= 9 \times 8 + 765 + 4 \times 32 + 1. \\
967 &= 9 + 8 + 7 \times 6 + 5 + 43 \times 21. \\
968 &= 9 + 87 \times 6 + 5 + 432 \times 1. \\
969 &= 9 + 87 \times 6 + 5 + 432 + 1. \\
970 &= 98 \times 7 + 65 \times 4 + 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
971 &= 1 + 23 \times 4 \times 5 + 6 + 7 \times 8 \times 9. \\
972 &= 123 + 4 + 56 + 789. \\
973 &= 123 \times 4 + 56 \times 7 + 89. \\
974 &= 123 \times 4 + 5 + 6 \times 78 + 9. \\
975 &= 12 + 3 + 456 + 7 \times 8 \times 9. \\
976 &= 1 \times 2 + 345 + 6 + 7 \times 89. \\
977 &= 12 + 34 \times 5 + 6 + 789. \\
978 &= 1 \times 2 \times 3 \times 45 + 6 + 78 \times 9. \\
979 &= 1 + 2 \times 3 + 45 \times 6 + 78 \times 9. \\
980 &= 123 + 4 \times 5 \times 6 \times 7 + 8 + 9. \\
981 &= 1 + 2^3 + 45 \times 6 + 78 \times 9. \\
982 &= 1 + 2 \times 3^4 + 5 \times 6 + 789. \\
983 &= 1 \times 23 + 456 + 7 \times 8 \times 9. \\
984 &= 1 + 23 + 456 + 7 \times 8 \times 9. \\
985 &= 1 \times 2 + 3 \times 4 \times 5 \times 6 + 7 \times 89. \\
986 &= 12 + 345 + 6 + 7 \times 89. \\
987 &= 12 + 3 + 45 \times 6 + 78 \times 9. \\
988 &= 1^2 + 3^4 \times (5 + 6) + 7 + 89. \\
989 &= 12 \times 3 \times 4 + 56 + 789. \\
990 &= 1 + 2^3 \times 45 + 6 + 7 \times 89. \\
991 &= 1 + 2 \times 3 \times (4 + 5 + 67 + 89). \\
992 &= 12 \times 34 + 567 + 8 + 9. \\
993 &= 1 + 234 + 56 + 78 \times 9. \\
994 &= 123 + 4 + (5 + 6) \times 78 + 9. \\
995 &= 12 + 3 \times 4 \times 5 \times 6 + 7 \times 89. \\
996 &= 12 \times 3 + 456 + 7 \times 8 \times 9. \\
997 &= 1 + 2 \times (3 \times 4 \times 5 + 6) \times 7 + 8 \times 9. \\
998 &= 1 \times 2 + 3 \times 4 \times (5 + 6) \times 7 + 8 \times 9. \\
999 &= 12 \times 3 \times (4 + 5) + (67 + 8) \times 9. \\
1000 &= 1 + 2 + 34 \times (5 + 6) + 7 \times 89. \\
1001 &= 1 \times 2 + (3 + 4) \times 5 \times 6 + 789. \\
1002 &= 1 \times 2 \times (345 + 67 + 89). \\
1003 &= 1 + 23 \times (4 + 5) + 6 + 789. \\
1004 &= 123 + 4 \times (5 \times 6 \times 7 + 8) + 9. \\
1005 &= 1 \times 23 \times 4 \times 5 + 67 \times 8 + 9. \\
1006 &= 1 + 23 \times 4 \times 5 + 67 \times 8 + 9. \\
1007 &= 12 \times 3^4 + 5 + 6 + 7 + 8 + 9. \\
1008 &= 12 \times 3 + 45 \times 6 + 78 \times 9. \\
1009 &= 12 + 34 \times (5 + 6) + 7 \times 89. \\
1010 &= 1 \times (2 + 3 + 4 + 5) \times 6 + 78 \times 9. \\
1011 &= 12 \times 3 \times (4 + 5) + 678 + 9. \\
1012 &= 1 + 2 \times (3^4 + 5 \times 6) + 789. \\
1013 &= 1^{23} \times 4 \times 56 + 789. \\
1014 &= 1^{23} + 4 \times 56 + 789. \\
1015 &= 1 \times 2 \times 34 \times 5 + (67 + 8) \times 9. \\
1016 &= 123 + 45 \times 6 + 7 \times 89. \\
1017 &= 1^2 + 3 + 4 \times 56 + 789. \\
1018 &= 1 \times 2 + 3 + 4 \times 56 + 789. \\
1019 &= 1 + 2 + 3 + 4 \times 56 + 789. \\
1020 &= 1 + 2 \times 3 + 4 \times 56 + 789. \\
1021 &= 1 \times 2^3 + 4 \times 56 + 789. \\
1022 &= 1 + 2^3 + 4 \times 56 + 789. \\
1023 &= 1 + 2 + 345 + (67 + 8) \times 9. \\
1024 &= 12 + 3 + 4 \times 5 \times (6 \times 7 + 8) + 9. \\
1025 &= 1 \times 2^3 \times 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
1026 &= 123 \times 4 + 5 \times 6 + 7 \times 8 \times 9. \\
1027 &= 12 + (3 + 4) \times 56 + 7 \times 89. \\
1028 &= 12 + 3 + 4 \times 56 + 789. \\
1029 &= 12 + (3 + 4 + 5 + 6) \times 7 \times 8 + 9. \\
1030 &= 1 \times 2 \times (34 + 56 \times 7 + 89). \\
1031 &= 1 \times (23 + 45) \times 6 + 7 \times 89. \\
1032 &= 123 + 4 \times 5 \times 6 + 789. \\
1033 &= 1^2 + 345 + 678 + 9. \\
1034 &= 1 \times 234 + 5 + 6 + 789. \\
1035 &= 1 + 234 + 5 + 6 + 789. \\
1036 &= 1 \times 23 + 4 \times 56 + 789. \\
1037 &= 1 + 23 + 4 \times 56 + 789. \\
1038 &= (123 + 4 + 5 + 6) \times 7 + 8 \times 9. \\
1039 &= 1 \times 2^3 \times 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
1040 &= (1 + 2)^3 + 4 \times 56 + 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
971 &= 98 + 7 \times 6 \times 5 \times 4 + 32 + 1. \\
972 &= 9 + 876 + 54 + 32 + 1. \\
973 &= 9 \times (8 + 7 + 6) \times 5 + 4 + 3 + 21. \\
974 &= 9 \times (8 + 7) \times 6 + 54 \times 3 + 2 \times 1. \\
975 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 + 3 \times 21. \\
976 &= 9 \times 87 + 65 + 4 \times 32 \times 1. \\
977 &= 9 \times 87 + 65 + 4 \times 32 + 1. \\
978 &= 98 \times 7 + 65 \times 4 + 32 \times 1. \\
979 &= 9 + 8 \times 7 + 6 + 5 + 43 \times 21. \\
980 &= 9 + 8 \times 7 \times 6 + 5^4 + 3^2 + 1. \\
981 &= 9 + 87 \times (6 + 5) + 4 \times 3 + 2 + 1. \\
982 &= 9 + 876 + (5 + 43) \times 2 + 1. \\
983 &= 98 + (7 + 65) \times 4 \times 3 + 21. \\
984 &= 9 \times 8 + 765 + (4 + 3) \times 21. \\
985 &= 98 + 7 \times 65 + 432 \times 1. \\
986 &= 98 + 7 \times 65 + 432 + 1. \\
987 &= (98 + 7 + 6) \times 5 + 432 \times 1. \\
988 &= 9 \times 8 \times (7 + 6) + 5 \times 4 + 32 \times 1. \\
989 &= (98 + 76 + 5 \times 4^3) \times 2 + 1. \\
990 &= 9 \times 8 + 7 + 65 \times (4 + 3) \times 2 + 1. \\
991 &= 98 + 765 + 4 \times 32 \times 1. \\
992 &= 9 + 8 \times 76 + 54 + 321. \\
993 &= 9 \times 8 + 7 + 6 + 5 + 43 \times 21. \\
994 &= 9 + 8 \times 7 \times 6 + 5^4 + 3 + 21. \\
995 &= 9 + (8 + 7) \times 65 + 4 + 3 \times 2 + 1. \\
996 &= 9 \times 8 \times 7 + 6 + 54 \times 3^2 \times 1. \\
997 &= 9 \times 8 \times 7 + 6 + 54 \times 3^2 + 1. \\
998 &= 9 + 8 + 7 + 6 \times 54 \times 3 + 2 \times 1. \\
999 &= 9 + 8 + 7 + 654 + 321. \\
1000 &= 9 + 876 + (54 + 3) \times 2 + 1. \\
1001 &= 9 \times 8 \times 7 + 65 + 432 \times 1. \\
1002 &= 9 \times 8 \times 7 + 65 + 432 + 1. \\
1003 &= 98 \times 7 + 65 + 4 \times 3 \times 21. \\
1004 &= 9 + 8 \times (76 + 5 + 43) + 2 + 1. \\
1005 &= 9 + 876 + 5 \times 4 \times 3 \times 2 \times 1. \\
1006 &= 9 \times 87 + 6 + 5 \times 43 + 2 \times 1. \\
1007 &= 9 \times 87 + 6 + 5 \times 43 + 2 + 1. \\
1008 &= 987 + 6 + 5 + 4 + 3 + 2 + 1. \\
1009 &= 987 + 6 + 5 + 4 + 3 \times 2 + 1. \\
1010 &= 9 + 87 + 6 + 5 + 43 \times 21. \\
1011 &= 987 + 6 + 5 + 4 + 3^2 \times 1. \\
1012 &= 9 \times 8 + 7 + 6 \times 5 + 43 \times 21. \\
1013 &= 987 + 6 + 5 + 4 \times 3 + 2 + 1. \\
1014 &= 98 \times 7 + 6 + 5 \times 4^3 + 2 \times 1. \\
1015 &= 98 \times 7 + 6 \times 54 + 3 + 2 \times 1. \\
1016 &= 98 \times 7 + 6 + 54 \times 3 \times 2 \times 1. \\
1017 &= 9 + 8 + 7 + 6 \times 54 \times 3 + 21. \\
1018 &= 987 + 6 + 5 \times 4 + 3 + 2 \times 1. \\
1019 &= 987 + 6 + 5 \times 4 + 3 + 2 + 1. \\
1020 &= 987 + 6 + 5 \times 4 + 3 \times 2 + 1. \\
1021 &= 9 + (8 + 7) \times 65 + 4 + 32 + 1. \\
1022 &= 98 \times 7 + 6 + 5 + 4 + 321. \\
1023 &= 987 + 6 + 5 + 4 \times 3 \times 2 + 1. \\
1024 &= 98 + 7 \times (6 + 5) \times 4 \times 3 + 2 \times 1. \\
1025 &= 9 \times 87 + 6 + 5 \times 43 + 21. \\
1026 &= 987 + 6 + 5 + 4 + 3 + 2 + 1. \\
1027 &= 987 + 6 \times 5 + 4 + 3 + 2 + 1. \\
1028 &= 987 + 6 \times 5 + 4 + 3 \times 2 + 1. \\
1029 &= 9 + 87 + 6 \times 5 + 43 \times 21. \\
1030 &= 987 + 6 \times 5 + 4 + 3^2 \times 1. \\
1031 &= 9 \times 8 + 7 + 6 + 5^4 + 321. \\
1032 &= 987 + 6 \times 5 + 4 \times 3 + 2 + 1. \\
1033 &= 98 \times 7 + 6 + 5 \times 4 + 321. \\
1034 &= 98 \times 7 + 6 \times 54 + 3 + 21. \\
1035 &= 987 + 6 + 5 + 4 + 32 + 1. \\
1036 &= 987 + (6 + 5) \times 4 + 3 + 2 \times 1. \\
1037 &= 987 + 6 + 5 \times 4 + 3 + 21. \\
1038 &= 98 + 7 + 6 \times 5 + 43 \times 21. \\
1039 &= 9 + 8 + 76 + 5^4 + 321. \\
1040 &= 9 + 8 \times 7 + 654 + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1041 &= (1 + 2 + 34 + 5) \times 6 + 789. \\
1042 &= 123 \times 4 + 5 + 67 \times 8 + 9. \\
1043 &= (1 + 2) \times 3^4 + 5 + 6 + 789. \\
1044 &= 12 + 345 + 678 + 9. \\
1045 &= 1^2 + 34 \times 5 \times 6 + 7 + 8 + 9. \\
1046 &= 1 \times 2 + 34 \times 5 \times 6 + 7 + 8 + 9. \\
1047 &= 12 \times 34 + 567 + 8 \times 9. \\
1048 &= 12 \times 3^4 + 5 + 6 + 7 \times 8 + 9. \\
1049 &= 123 + 4 \times 56 + 78 \times 9. \\
1050 &= 12 + (3 + 4 \times 5) \times 6 \times 7 + 8 \times 9. \\
1051 &= 1 + 2 \times (3 + 45 + 6 \times 78 + 9). \\
1052 &= 123 + 4 \times 5 \times 6 \times 7 + 89. \\
1053 &= 1 \times 234 + 5 \times 6 + 789. \\
1054 &= 1 + 234 + 5 \times 6 + 789. \\
1055 &= 1^{23} + 4^5 + 6 + 7 + 8 + 9. \\
1056 &= 12 + 34 \times 5 \times 6 + 7 + 8 + 9. \\
1057 &= 1^2 \times 3 + 4^5 + 6 + 7 + 8 + 9. \\
1058 &= 1^2 + 3 + 4^5 + 6 + 7 + 8 + 9. \\
1059 &= 1^{23} \times 45 \times 6 + 789. \\
1060 &= 1^{23} + 45 \times 6 + 789. \\
1061 &= 12 \times 34 + 5 \times 6 + 7 \times 89. \\
1062 &= 12 \times 3^4 + 5 + 6 + 7 + 8 \times 9. \\
1063 &= 1^2 + 3 + 45 \times 6 + 789. \\
1064 &= 12 \times 34 + 567 + 89. \\
1065 &= 12 + 345 + 6 + 78 \times 9. \\
1066 &= 1 + 23 \times 45 + 6 + 7 + 8 + 9. \\
1067 &= 12 \times 3^4 + 5 \times 6 + 7 \times 8 + 9. \\
1068 &= 1 + 2^3 + 45 \times 6 + 789. \\
1069 &= 12 + 3 + 4^5 + 6 + 7 + 8 + 9. \\
1070 &= 12 \times 3^4 + 5 + 6 + 78 + 9. \\
1071 &= 12 + 345 + 6 \times 7 \times (8 + 9). \\
1072 &= 1 + 2 \times (3 \times 45 + 6) + 789. \\
1073 &= (123 + 45) \times 6 + 7 \times 8 + 9. \\
1074 &= 12 + 3 + 45 \times 6 + 789. \\
1075 &= 1 + (2 + 3 \times 4 \times 5) \times 6 + 78 \times 9. \\
1076 &= 123 \times 4 + 567 + 8 + 9. \\
1077 &= 1 \times 23 + 4^5 + 6 + 7 + 8 + 9. \\
1078 &= 1 + 23 + 4^5 + 6 + 7 + 8 + 9. \\
1079 &= 1 \times 234 + 56 + 789. \\
1080 &= 1 + 234 + 56 + 789. \\
1081 &= 12 \times 3^4 + 5 \times 6 + 7 + 8 \times 9. \\
1082 &= 1 \times 23 + 45 \times 6 + 789. \\
1083 &= 123 + 456 + 7 \times 8 \times 9. \\
1084 &= 1^{23} + 4^5 + 6 \times 7 + 8 + 9. \\
1085 &= 1 \times 2 \times 3 + 456 + 7 \times 89. \\
1086 &= 1 + 2 \times 3 + 456 + 7 \times 89. \\
1087 &= 12 \times 34 + 56 + 7 \times 89. \\
1088 &= 1 + 2^3 + 456 + 7 \times 89. \\
1089 &= 12 \times 3^4 + 5 \times 6 + 78 + 9. \\
1090 &= 12 \times 3 + 4^5 + 6 + 7 + 8 + 9. \\
1091 &= 12 \times 3^4 + 5 + 6 \times 7 + 8 \times 9. \\
1092 &= 1^2 \times 3^4 \times 5 + 678 + 9. \\
1093 &= 12 \times 3^4 + 56 + 7 \times 8 + 9. \\
1094 &= 12 + 3 + 456 + 7 \times 89. \\
1095 &= 123 + 45 \times 6 + 78 \times 9. \\
1096 &= 1^{23} + 4^5 + 6 + 7 \times 8 + 9. \\
1097 &= 12 + 34 \times 5 \times 6 + 7 \times 8 + 9. \\
1098 &= 12 + 3 + 4^5 + 6 \times 7 + 8 + 9. \\
1099 &= 1^2 \times 34 \times 5 \times 6 + 7 + 8 \times 9. \\
1100 &= 12 \times 34 + 5 + 678 + 9. \\
1101 &= 1 \times 2 + 34 \times 5 \times 6 + 7 + 8 \times 9. \\
1102 &= 1 \times 23 + 456 + 7 \times 89. \\
1103 &= 1 + 23 + 456 + 7 \times 89. \\
1104 &= 12 + 3^4 \times 5 + 678 + 9. \\
1105 &= 1 + (2 + 34) \times 5 \times 6 + 7 + 8 + 9. \\
1106 &= 1 \times 23 \times 45 + 6 + 7 \times 8 + 9. \\
1107 &= 1 + 23 \times 45 + 6 + 7 \times 8 + 9. \\
1108 &= 12 \times 3^4 + 5 + 6 \times 7 + 89. \\
1109 &= 1 \times 2 + 34 \times 5 \times 6 + 78 + 9. \\
1110 &= 1 + 2 + 34 \times 5 \times 6 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1041 &= 98 \times 7 + 6 \times 5 + 4 + 321. \\
1042 &= 987 + 6 \times 5 + 4 \times 3 \times 2 + 1. \\
1043 &= 987 + 6 + 5 + 43 + 2 \times 1. \\
1044 &= 987 + 6 + 5 + 43 + 2 + 1. \\
1045 &= 987 + 6 \times 5 + 4 + 3 + 21. \\
1046 &= 987 + 6 + 5 \times 4 + 32 + 1. \\
1047 &= 9 \times 8 + 7 + 65 + 43 \times 21. \\
1048 &= 98 + 7 \times 6 + 5 + 43 \times 21. \\
1049 &= 9 \times 87 + 65 \times 4 + 3 + 2 + 1. \\
1050 &= 9 + 876 + 54 \times 3 + 2 + 1. \\
1051 &= 98 + 7 + (6 + 5) \times 43 \times 2 \times 1. \\
1052 &= 987 + 6 + 54 + 3 + 2 \times 1. \\
1053 &= 987 + 6 + 54 + 3 + 2 + 1. \\
1054 &= 9 \times 8 + 7 + 654 + 321. \\
1055 &= 987 + 6 + 5 \times 4 \times 3 + 2 \times 1. \\
1056 &= 987 + 6 + 5 \times 4 \times 3 + 2 + 1. \\
1057 &= 987 + 6 + 54 + 3^2 + 1. \\
1058 &= 9 + 8 \times 7 + 6 \times 54 \times 3 + 21. \\
1059 &= 9 \times 87 + 6 + 54 \times (3 + 2) \times 1. \\
1060 &= 9 \times 8 + 7 \times 6 + 5^4 + 321. \\
1061 &= 987 + 65 + 4 + 3 + 2 \times 1. \\
1062 &= 987 + 65 + 4 + 3 + 2 + 1. \\
1063 &= 987 + 65 + 4 + 3 \times 2 + 1. \\
1064 &= 9 + 87 + 65 + 43 \times 21. \\
1065 &= 987 + 6 + 5 + 4 + 3 \times 21. \\
1066 &= 987 + 65 + 4 + 3^2 + 1. \\
1067 &= 98 \times 7 + 6 + 54 + 321. \\
1068 &= 9 + 876 + 54 \times 3 + 21. \\
1069 &= 9 + (8 + 7) \times 65 + 4^3 + 21. \\
1070 &= 9 + 87 + 6 \times 54 \times 3 + 2 \times 1. \\
1071 &= 9 + 87 + 654 + 321. \\
1072 &= 9 \times 8 + 7 + 6 \times 54 \times 3 + 21. \\
1073 &= 98 + 7 + 65 + 43 \times 21. \\
1074 &= 9 \times 8 \times 7 + 6 + 543 + 21. \\
1075 &= 9 \times 87 + 65 \times 4 + 32 \times 1. \\
1076 &= 987 + 65 + 4 \times 3 \times 2 \times 1. \\
1077 &= 9 + 87 \times 6 + 543 + 2 + 1. \\
1078 &= 9 \times 87 + 6 + (5 + 4) \times 32 + 1. \\
1079 &= 987 + 6 + 54 + 32 \times 1. \\
1080 &= 98 + 7 + 654 + 321. \\
1081 &= 987 + 6 \times 5 + 43 + 21. \\
1082 &= 98 + 76 + 5 + 43 \times 21. \\
1083 &= 987 + 6 + 5 + 4^3 + 21. \\
1084 &= 987 + 6 + 5 + 43 \times 2 \times 1. \\
1085 &= 987 + 65 + 4 \times 3 + 21. \\
1086 &= 98 + 7 \times 6 + 5^4 + 321. \\
1087 &= (9 + 8) \times 7 + 65 + 43 \times 21. \\
1088 &= 987 + 65 + 4 + 32 \times 1. \\
1089 &= 987 + 65 + 4 + 32 + 1. \\
1090 &= 9 + 8 \times (76 + 5) + 432 + 1. \\
1091 &= 98 + (76 + 5) \times 4 \times 3 + 21. \\
1092 &= 9 \times 87 + 6 \times (5 + 43) + 21. \\
1093 &= 987 + 6 + 5 \times 4 \times (3 + 2) \times 1. \\
1094 &= 9 \times 8 + 76 + 5^4 + 321. \\
1095 &= 9 + 87 \times 6 + 543 + 21. \\
1096 &= 9 + 8 + 7 \times (65 + 4 \times 3) \times 2 + 1. \\
1097 &= 987 + 65 + 43 + 2 \times 1. \\
1098 &= 987 + 65 + 43 + 2 + 1. \\
1099 &= (98 + 76 + 5 + 4) \times 3 \times 2 + 1. \\
1100 &= 98 \times 7 + (65 + 4) \times 3 \times 2 \times 1. \\
1101 &= 9 + 8 + 76 + (5 + 43) \times 21. \\
1102 &= 987 + 6 \times 5 + 4^3 + 21. \\
1103 &= 9 + 876 + 5 \times 43 + 2 + 1. \\
1104 &= 987 + 6 \times 5 + 43 \times 2 + 1. \\
1105 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 3^2 + 1. \\
1106 &= 9 \times 87 + 65 \times 4 + 3 \times 21. \\
1107 &= 9 + 8 + 765 + 4 + 321. \\
1108 &= 987 + 6 + (54 + 3) \times 2 + 1. \\
1109 &= 9 \times 87 + 6 + 5 \times (43 + 21). \\
1110 &= 987 + 6 + 54 + 3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1111 &= 12 + 34 \times 5 \times 6 + 7 + 8 \times 9. \\
1112 &= 1^2 + 3 + 4^5 + 67 + 8 + 9. \\
1113 &= 1^2 + 3 + 4^5 + 6 + 7 + 8 \times 9. \\
1114 &= 1 \times 2 + 3 + 4^5 + 6 + 7 + 8 \times 9. \\
1115 &= 12 \times 3 + 456 + 7 \times 89. \\
1116 &= 12 \times 3^4 + 5 + 67 + 8 \times 9. \\
1117 &= 1 \times 2^3 + 4^5 + 6 + 7 + 8 \times 9. \\
1118 &= 1 \times 23 + 4^5 + 6 + 7 \times 8 + 9. \\
1119 &= 12 + 34 \times 5 \times 6 + 78 + 9. \\
1120 &= 1 + 23 \times 45 + 67 + 8 + 9. \\
1121 &= 1^2 + 3 + 4^5 + 6 + 78 + 9. \\
1122 &= 1 \times 2 + 3 + 4^5 + 6 + 78 + 9. \\
1123 &= 12 + 3 + 4^5 + 67 + 8 + 9. \\
1124 &= 12 \times 3^4 + 56 + 7 + 89. \\
1125 &= 12 + 3^4 \times 5 + 6 + 78 \times 9. \\
1126 &= 123 \times 4 + 5 + 6 + 7 + 89. \\
1127 &= 1^{23} + 4^5 + 6 + 7 + 89. \\
1128 &= 1 \times 23 \times 45 + 6 + 78 + 9. \\
1129 &= 1 + 23 \times 45 + 6 + 78 + 9. \\
1130 &= 1^2 + 3 + 4^5 + 6 + 7 + 89. \\
1131 &= 123 \times 4 + 567 + 8 \times 9. \\
1132 &= 12 + 3 + 4^5 + 6 + 78 + 9. \\
1133 &= 12 \times 3^4 + 5 + 67 + 89. \\
1134 &= 1 \times 2^3 + 4^5 + 6 + 7 + 89. \\
1135 &= 1 \times 2 \times 34 \times 5 + 6 + 789. \\
1136 &= 123 + 4 \times 56 + 789. \\
1137 &= 1 \times 23 \times 45 + 6 + 7 + 89. \\
1138 &= 1 + 23 \times 45 + 6 + 7 + 89. \\
1139 &= 1^{23} + 4^5 + 6 \times 7 + 8 \times 9. \\
1140 &= 12 \times 34 + 5 \times 6 + 78 \times 9. \\
1141 &= 12 + 3 + 4^5 + 6 + 7 + 89. \\
1142 &= 1 \times 2 + 345 + 6 + 789. \\
1143 &= 1 + 2 + 345 + 6 + 789. \\
1144 &= 12 \times 3 + 4^5 + 67 + 8 + 9. \\
1145 &= 123 \times 4 + 5 \times 6 + 7 \times 89. \\
1146 &= 1 \times 2^3 + 4^5 + 6 \times 7 + 8 \times 9. \\
1147 &= 1 \times 23 \times 4 \times 5 + 678 + 9. \\
1148 &= 123 \times 4 + 567 + 89. \\
1149 &= 1^2 \times 3 \times 4 \times 5 \times 6 + 789. \\
1150 &= 1 + 23 \times 45 + 6 \times 7 + 8 \times 9. \\
1151 &= 1 \times 2 + 3 \times 4 \times 5 \times 6 + 789. \\
1152 &= 12 + 345 + 6 + 789. \\
1153 &= 12 \times 3 + 4^5 + 6 + 78 + 9. \\
1154 &= 1 + 2 + 3 + 4 + 5 + 67 \times (8 + 9). \\
1155 &= 1 \times 2^3 \times 45 + 6 + 789. \\
1156 &= 1 + 2^3 \times 45 + 6 + 789. \\
1157 &= 1 \times 2 + 345 + 6 \times (7 + 8) \times 9. \\
1158 &= 1^{23} \times 456 + 78 \times 9. \\
1159 &= 1^{23} + 456 + 78 \times 9. \\
1160 &= 1 \times 2 + 3 + 4^5 + 6 \times 7 + 89. \\
1161 &= 12 + 3 \times 4 \times 5 \times 6 + 789. \\
1162 &= 12 \times 3 + 4^5 + 6 + 7 + 89. \\
1163 &= 1 \times 2 + 3 + 456 + 78 \times 9. \\
1164 &= 1 \times 2 \times 3 + 456 + 78 \times 9. \\
1165 &= 1 + 2 \times 3 + 456 + 78 \times 9. \\
1166 &= 12 \times 34 + 56 + 78 \times 9. \\
1167 &= 1 \times 2 \times 345 + 6 \times 78 + 9. \\
1168 &= 1 \times 23 \times 4 \times 5 + 6 + 78 \times 9. \\
1169 &= 1 + 23 \times 4 \times 5 + 6 + 78 \times 9. \\
1170 &= 1 + 2 \times 3 + 4^5 + 67 + 8 \times 9. \\
1171 &= 123 \times 4 + 56 + 7 \times 89. \\
1172 &= 1 + 2^3 + 4^5 + 67 + 8 \times 9. \\
1173 &= 12 + 3 + 456 + 78 \times 9. \\
1174 &= 1 \times 23 \times 45 + 67 + 8 \times 9. \\
1175 &= 1 + 23 \times 45 + 67 + 8 \times 9. \\
1176 &= 1^2 \times 3 \times 4 \times 56 + 7 \times 8 \times 9. \\
1177 &= 123 + 4^5 + 6 + 7 + 8 + 9. \\
1178 &= 12 + 3 + 4^5 + 67 + 8 \times 9. \\
1179 &= 1 + 2 + 3 \times 4 \times 56 + 7 \times 8 \times 9. \\
1180 &= 1^{23} \times 4^5 + 67 + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1111 &= 9 \times 87 + 6 + 5 \times 4^3 + 2 \times 1. \\
1112 &= 9 \times 87 + 6 \times 54 + 3 + 2 \times 1. \\
1113 &= 987 + 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
1114 &= 9 \times 87 + 6 + 54 \times 3 \times 2 + 1. \\
1115 &= 98 + 765 + 4 \times 3 \times 21. \\
1116 &= 987 + 65 + 43 + 21. \\
1117 &= 9 + 8 + 7 + 6 + 543 \times 2 + 1. \\
1118 &= 987 + 65 + 4^3 + 2 \times 1. \\
1119 &= 9 \times 87 + 6 + 5 + 4 + 321. \\
1120 &= 98 + 76 + 5^4 + 321. \\
1121 &= 9 + 876 + 5 \times 43 + 21. \\
1122 &= 98 \times 7 + 6 + 5 \times 43 \times 2 \times 1. \\
1123 &= 98 \times 7 + 6 + 5 \times 43 \times 2 + 1. \\
1124 &= 9 \times 87 + 6 + 5 \times (4 + 3 \times 21). \\
1125 &= 9 \times 8 \times 7 + (65 + 4) \times 3^2 \times 1. \\
1126 &= 987 + 6 + 5 + 4 \times 32 \times 1. \\
1127 &= 987 + 6 + 5 + 4 \times 32 + 1. \\
1128 &= 9 \times 87 + 6 \times (54 + 3) + 2 + 1. \\
1129 &= 98 \times 7 + 6 + 5 + 432 \times 1. \\
1130 &= 98 \times 7 + 6 + 5 + 432 + 1. \\
1131 &= 987 + 6 \times 5 \times 4 + 3 + 21. \\
1132 &= 987 + (65 + 4 + 3) \times 2 + 1. \\
1133 &= 987 + 6 + 5 \times 4 \times (3 \times 2 + 1). \\
1134 &= 9 \times (8 + 7) \times 6 + 54 \times 3 \times 2 \times 1. \\
1135 &= 9 \times (8 + 7) \times 6 + 54 \times 3 \times 2 + 1. \\
1136 &= 9 \times 8 + 7 \times (65 + 43 \times 2 + 1). \\
1137 &= 987 + 65 + 4^3 + 21. \\
1138 &= 987 + 65 + 43 \times 2 \times 1. \\
1139 &= 987 + 65 + 43 \times 2 + 1. \\
1140 &= 9 \times 87 + 6 \times 54 + 32 + 1. \\
1141 &= 9 \times 8 \times 7 + 6 + 5^4 + 3 + 2 + 1. \\
1142 &= 9 + 876 + 5 + 4 \times 3 \times 21. \\
1143 &= 987 + (6 + 5 \times 4) \times 3 \times 2 \times 1. \\
1144 &= 9 \times 8 \times 7 + 6 + 5^4 + 3^2 \times 1. \\
1145 &= 987 + 6 \times 5 + 4 \times 32 \times 1. \\
1146 &= 987 + 6 \times 5 + 4 \times 32 + 1. \\
1147 &= (9 + 8 + 7 + 6 + 543) \times 2 + 1. \\
1148 &= 98 \times 7 + 6 \times 5 + 432 \times 1. \\
1149 &= 9 \times 8 \times 7 + 6 \times 54 + 321. \\
1150 &= 9 \times 8 \times 7 + 6 + 5 \times 4 \times 32 \times 1. \\
1151 &= 9 \times 8 \times 7 + 6 + 5 \times 4 \times 32 + 1. \\
1152 &= (9 + 8) \times 7 \times 6 + 5 + 432 + 1. \\
1153 &= 9 + 8 + 7 \times 6 \times (5 + 4) \times 3 + 2 \times 1. \\
1154 &= 9 \times 8 \times (7 + 6) + 5 \times 43 + 2 + 1. \\
1155 &= 9 + 876 + 54 \times (3 + 2) \times 1. \\
1156 &= 9 + 876 + 54 \times (3 + 2) + 1. \\
1157 &= 987 + 6 + 54 \times 3 + 2 \times 1. \\
1158 &= 987 + 6 + 54 \times 3 + 2 + 1. \\
1159 &= 9 \times 8 \times 7 + 6 + 5^4 + 3 + 21. \\
1160 &= 9 \times 8 + 7 + 6 \times 5 \times 4 \times 3^2 + 1. \\
1161 &= 9 + 87 \times 6 + 5^4 + 3 + 2 \times 1. \\
1162 &= 9 \times 8 + 765 + 4 + 321. \\
1163 &= 9 \times 8 \times 7 + 654 + 3 + 2 \times 1. \\
1164 &= 9 \times 87 + 6 + 54 + 321. \\
1165 &= 9 \times 8 \times 7 + 654 + 3 \times 2 + 1. \\
1166 &= 9 + 87 \times 6 + 5^4 + 3^2 + 1. \\
1167 &= 9 \times 8 \times 7 + 6 + 5^4 + 32 \times 1. \\
1168 &= 9 \times 8 \times 7 + 654 + 3^2 + 1. \\
1169 &= 987 + (6 + 54) \times 3 + 2 \times 1. \\
1170 &= 987 + 6 \times 5 \times 4 + 3 \times 21. \\
1171 &= 9 + 87 \times 6 + 5 \times 4 \times 32 \times 1. \\
1172 &= 9 \times 8 + 7 + 6 + 543 \times 2 + 1. \\
1173 &= 9 \times 87 + 65 + 4 + 321. \\
1174 &= 987 + 6 + 5 \times 4 \times 3^2 + 1. \\
1175 &= (98 + 7) \times 6 + 543 + 2 \times 1. \\
1176 &= 987 + 6 + 54 \times 3 + 21. \\
1177 &= 9 + 87 + 6 \times 5 \times 4 \times 3^2 + 1. \\
1178 &= 9 + 8 + 7 \times 6 \times 5 \times 4 + 321. \\
1179 &= 9 + 8 + 76 + 543 \times 2 \times 1. \\
1180 &= 987 + 65 + 4 \times 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1181 &= 1 \times 23 + 456 + 78 \times 9. \\
1182 &= 123 + 45 \times 6 + 789. \\
1183 &= 1^2 \times 3 + 4^5 + 67 + 89. \\
1184 &= 123 \times 4 + 5 + 678 + 9. \\
1185 &= 1 \times 2 + 3 + 4^5 + 67 + 89. \\
1186 &= 1 + 2 + 3 + 4^5 + 67 + 89. \\
1187 &= 1 + 2 \times 3 + 4^5 + 67 + 89. \\
1188 &= 1 \times 2^3 + 4^5 + 67 + 89. \\
1189 &= 1 + 2^3 + 4^5 + 67 + 89. \\
1190 &= (1 + 2)^3 + 4^5 + 67 + 8 \times 9. \\
1191 &= 1 \times 23 \times 45 + 67 + 89. \\
1192 &= 1 + 23 \times 45 + 67 + 89. \\
1193 &= 12 + (3 + 4) \times 56 + 789. \\
1194 &= 12 \times 3 + 456 + 78 \times 9. \\
1195 &= 12 + 3 + 4^5 + 67 + 89. \\
1196 &= 1^2 \times 34 + 5 + (6 + 7) \times 89. \\
1197 &= 12 \times 3 \times 4 \times 5 + 6 \times 78 + 9. \\
1198 &= 1 \times 2 + 34 + 5 + (6 + 7) \times 89. \\
1199 &= 12 \times 3 + 4^5 + 67 + 8 \times 9. \\
1200 &= 1 \times 234 \times 5 + 6 + 7 + 8 + 9. \\
1201 &= 1 + 234 \times 5 + 6 + 7 + 8 + 9. \\
1202 &= 123 + 456 + 7 \times 89. \\
1203 &= 1 + 2 + 3^4 \times 5 + 6 + 789. \\
1204 &= 1 + 23 + 4^5 + 67 + 89. \\
1205 &= 123 \times 4 + 5 + 6 + 78 \times 9. \\
1206 &= 123 + 4^5 + 6 \times 7 + 8 + 9. \\
1207 &= 1 + 2 \times 3 \times (45 + 67 + 89). \\
1208 &= 12 \times 34 + 5 + 6 + 789. \\
1209 &= 1 \times 2 \times (3 + 4) \times 5 \times 6 + 789. \\
1210 &= 1 + 2 \times (3 + 4) \times 5 \times 6 + 789. \\
1211 &= 123 \times 4 + 5 + 6 \times 7 \times (8 + 9). \\
1212 &= 12 + 3^4 \times 5 + 6 + 789. \\
1213 &= 1 + 2 \times 34 + 5 + 67 \times (8 + 9). \\
1214 &= 1 + 2 + (3 \times 4 + 5) \times 67 + 8 \times 9. \\
1215 &= (12 + 3 + 45 + 67 + 8) \times 9. \\
1216 &= 12 \times 3 + 4^5 + 67 + 89. \\
1217 &= 12 + 3 + 45 + (6 + 7) \times 89. \\
1218 &= 123 + 4^5 + 6 + 7 \times 8 + 9. \\
1219 &= 1 \times 2 \times (34 + 567) + 8 + 9. \\
1220 &= (12 + 3) \times 45 + 67 \times 8 + 9. \\
1221 &= (12 + 3 \times 4 \times 5) \times 6 + 789. \\
1222 &= 1 + 2^3 \times (4 + 5) \times 6 + 789. \\
1223 &= 12 \times 34 + 5 + 6 \times (7 + 8) \times 9. \\
1224 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
1225 &= 1 + 2 \times 3 \times 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
1226 &= 1 + 23 + 45 + (6 + 7) \times 89. \\
1227 &= 12 \times 34 + 5 \times 6 + 789. \\
1228 &= 1 + (2 \times 34 + 5) \times 6 + 789. \\
1229 &= 1 \times 234 \times 5 + 6 \times 7 + 8 + 9. \\
1230 &= 1 + 234 \times 5 + 6 \times 7 + 8 + 9. \\
1231 &= 123 + 4^5 + 67 + 8 + 9. \\
1232 &= 123 + 4^5 + 6 + 7 + 8 \times 9. \\
1233 &= 12 \times (3 + 4 + 5 \times 6) + 789. \\
1234 &= (1 + 234) \times 5 + 6 \times 7 + 8 + 9. \\
1235 &= 1 \times 2 \times 345 + 67 \times 8 + 9. \\
1236 &= 1 + 2 \times 345 + 67 \times 8 + 9. \\
1237 &= 12 + 3^4 + 5 + 67 \times (8 + 9). \\
1238 &= 123 \times (4 + 5) + 6 \times 7 + 89. \\
1239 &= 1 + 23 \times (45 + 6) + 7 \times 8 + 9. \\
1240 &= 123 + 4^5 + 6 + 78 + 9. \\
1241 &= 1 \times 234 \times 5 + 6 + 7 \times 8 + 9. \\
1242 &= 1 + 234 \times 5 + 6 + 7 \times 8 + 9. \\
1243 &= 1 \times 2 \times (3 + 4 \times 56) + 789. \\
1244 &= 1 + 2 \times (3 + 4 \times 56) + 789. \\
1245 &= 1^{23} \times 456 + 789. \\
1246 &= 1^{23} + 456 + 789. \\
1247 &= 1 \times 2 \times (3 \times 4 + 567) + 89. \\
1248 &= 1^2 \times 3 + 456 + 789. \\
1249 &= 123 + 4^5 + 6 + 7 + 89. \\
1250 &= 123 \times 4 + 56 + 78 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1181 &= 987 + 65 + 4 \times 32 + 1. \\
1182 &= 9 \times 8 \times 7 + 654 + 3 + 21. \\
1183 &= 98 \times 7 + 65 + 432 \times 1. \\
1184 &= 98 \times 7 + 65 + 432 + 1. \\
1185 &= 9 \times 8 + 7 \times 6 \times 5 + 43 \times 21. \\
1186 &= 98 + 7 + 6 \times 5 \times 4 \times 3^2 + 1. \\
1187 &= (9 + 8 + 7 \times 6) \times 5 \times 4 + 3 \times 2 + 1. \\
1188 &= 98 + 765 + 4 + 321. \\
1189 &= 9 + 87 + 6 + 543 \times 2 + 1. \\
1190 &= 9 \times 8 \times 7 + 654 + 32 \times 1. \\
1191 &= 9 \times 8 \times 7 + 654 + 32 + 1. \\
1192 &= 987 + (6 \times 5 + 4) \times 3 \times 2 + 1. \\
1193 &= 9 \times 8 \times (7 + 6) + 5 + 4 \times 3 \times 21. \\
1194 &= (98 + 7) \times 6 + 543 + 21. \\
1195 &= (98 + 76) \times 5 + 4 + 321. \\
1196 &= 987 + (65 + 4) \times 3 + 2 \times 1. \\
1197 &= 98 + 7 + 6 + 543 \times 2 \times 1. \\
1198 &= 9 \times 8 \times 7 + 6 + 5^4 + 3 \times 21. \\
1199 &= 9 + 8 \times (7 + 6) + 543 \times 2 \times 1. \\
1200 &= 9 \times 8 + 7 \times 6 + 543 \times 2 \times 1. \\
1201 &= 9 \times 8 + 7 \times 6 + 543 \times 2 + 1. \\
1202 &= 9 + (8 + 7 \times 6 \times 5) \times 4 + 321. \\
1203 &= 987 + (65 + 43) \times 2 \times 1. \\
1204 &= 987 + (65 + 43) \times 2 + 1. \\
1205 &= 9 + 876 + 5 \times (43 + 21). \\
1206 &= 9 + (8 + 7 + 6) \times 54 + 3 \times 21. \\
1207 &= 9 + 876 + 5 \times 4^3 + 2 \times 1. \\
1208 &= 9 + 876 + 5 \times 4^3 + 2 + 1. \\
1209 &= 9 + 876 + 54 \times 3 \times 2 \times 1. \\
1210 &= 9 + 876 + 54 \times 3 \times 2 + 1. \\
1211 &= 987 + 6 + 5 \times 43 + 2 + 1. \\
1212 &= (9 + 8) \times 7 + 6 + 543 \times 2 + 1. \\
1213 &= (9 \times 8 + 76 + 54) \times 3 \times 2 + 1. \\
1214 &= 9 + 8 + 765 + 432 \times 1. \\
1215 &= 9 + 8 + 765 + 432 + 1. \\
1216 &= (9 + 87) \times 6 + 5 \times 4 \times 32 \times 1. \\
1217 &= (9 + 87) \times 6 + 5 \times 4 \times 32 + 1. \\
1218 &= 987 + 6 \times 5 \times (4 + 3) + 21. \\
1219 &= 9 \times 87 + 6 + 5 \times 43 \times 2 \times 1. \\
1220 &= 9 \times 87 + 6 + 5 \times 43 \times 2 + 1. \\
1221 &= 9 \times 8 \times 7 + 654 + 3 \times 21. \\
1222 &= 9 + (8 \times 7 + 6) \times 5 + 43 \times 21. \\
1223 &= 987 + 6 + 5 \times (43 + 2 + 1). \\
1224 &= 9 \times 87 + 6 \times 5 \times 4 + 321. \\
1225 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
1226 &= 9 + 876 + 5 \times 4 + 321. \\
1227 &= 9 \times 87 + 6 + 5 + 432 + 1. \\
1228 &= 9 \times (8 + 7) + 6 + 543 \times 2 + 1. \\
1229 &= 987 + 6 + 5 \times 43 + 21. \\
1230 &= 9 + 87 + (6 + 5 + 43) \times 21. \\
1231 &= (9 + 8 + 7) \times 6 + 543 \times 2 + 1. \\
1232 &= 98 + 7 \times 6 \times (5 \times 4 + 3 \times 2 + 1). \\
1233 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 + 321. \\
1234 &= 9 \times 8 + 76 + 543 \times 2 \times 1. \\
1235 &= 9 \times 8 + 76 + 543 \times 2 + 1. \\
1236 &= 9 + (8 + 7) \times 65 + 4 \times 3 \times 21. \\
1237 &= 98 \times 7 + 6 + 543 + 2 \times 1. \\
1238 &= 98 \times 7 + 6 + 543 + 2 + 1. \\
1239 &= 987 + 6 \times (5 + 4 + 32 + 1). \\
1240 &= 9 \times 87 + 65 \times (4 + 3) + 2 \times 1. \\
1241 &= 9 \times 87 + 65 \times (4 + 3) + 2 + 1. \\
1242 &= 9 + 876 + (5 + 4 \times 3) \times 21. \\
1243 &= (9 + 8 + 7 \times 6) \times 5 \times 4 + 3 \times 21. \\
1244 &= 9 + (87 + 6 \times 54) \times 3 + 2 \times 1. \\
1245 &= 9 \times 87 + 6 \times 5 + 432 \times 1. \\
1246 &= 9 \times 87 + 6 \times 5 + 432 + 1. \\
1247 &= 9 + 8 \times 76 + 5^4 + 3 + 2 \times 1. \\
1248 &= 9 + 8 \times 76 + 5^4 + 3 + 2 + 1. \\
1249 &= 9 + 8 \times 76 + 5^4 + 3 \times 2 + 1. \\
1250 &= 987 + 6 + 5 + 4 \times 3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1251 &= 1 + 2 + 3 + 456 + 789. \\
1252 &= 1 + 2 \times 3 + 456 + 789. \\
1253 &= 12 \times 34 + 56 + 789. \\
1254 &= 1 \times 234 \times 5 + 67 + 8 + 9. \\
1255 &= 1 \times 234 \times 5 + 6 + 7 + 8 \times 9. \\
1256 &= 1 + 23 \times 4 \times 5 + 6 + 789. \\
1257 &= 12 \times 34 + 56 \times (7 + 8) + 9. \\
1258 &= 1 + 2 \times (34 + 5) \times 6 + 789. \\
1259 &= 1 \times 2 \times 3 \times 4 \times 5 + 67 \times (8 + 9). \\
1260 &= 12 + 3 + 456 + 789. \\
1261 &= 123 + 4^5 + 6 \times 7 + 8 \times 9. \\
1262 &= (1 + 2 + 3 + 4) \times 56 + 78 \times 9. \\
1263 &= 1 \times 234 \times 5 + 6 + 78 + 9. \\
1264 &= 1 + 234 \times 5 + 6 + 78 + 9. \\
1265 &= 12 \times 3 \times 4 \times 5 + 67 \times 8 + 9. \\
1266 &= 1 \times 23 \times (4 + 5) \times 6 + 7 + 8 + 9. \\
1267 &= 1 + 2 \times 345 + 6 \times (7 + 89). \\
1268 &= 1 \times 23 + 456 + 789. \\
1269 &= 1234 + 5 + 6 + 7 + 8 + 9. \\
1270 &= 1 \times 23 \times 4 \times 5 + 6 \times (7 + 8) \times 9. \\
1271 &= 12 \times 3^4 + 5 \times 6 \times 7 + 89. \\
1272 &= 1 \times 234 \times 5 + 6 + 7 + 89. \\
1273 &= 1 + 234 \times 5 + 6 + 7 + 89. \\
1274 &= 1 \times 2 \times (34 + 567) + 8 \times 9. \\
1275 &= 1 + 2 \times (34 + 567) + 8 \times 9. \\
1276 &= 1 \times 2 + 3 \times 45 + 67 \times (8 + 9). \\
1277 &= (1 + 234) \times 5 + 6 + 7 + 89. \\
1278 &= 123 + 4^5 + 6 \times 7 + 89. \\
1279 &= 1 + 2 \times (3 + 45) \times 6 + 78 \times 9. \\
1280 &= 1 + 2 + 3 \times (4 + 56) \times 7 + 8 + 9. \\
1281 &= 123 + 456 + 78 \times 9. \\
1282 &= 1 + (2 + 3)^4 + 567 + 89. \\
1283 &= 1 \times 234 \times 5 + (6 + 7) \times 8 + 9. \\
1284 &= 1 \times 234 \times 5 + 6 \times 7 + 8 \times 9. \\
1285 &= 1 + 234 \times 5 + 6 \times 7 + 8 \times 9. \\
1286 &= 123 + 4^5 + 67 + 8 \times 9. \\
1287 &= 1 \times 2 \times 3^4 \times 5 + 6 \times 78 + 9. \\
1288 &= 1234 + 5 \times 6 + 7 + 8 + 9. \\
1289 &= 12 + 3 \times (4 + 56 \times 7) + 89. \\
1290 &= (123 + 45 + 6) \times 7 + 8 \times 9. \\
1291 &= 1 \times 2 \times (34 + 567) + 89. \\
1292 &= 123 \times 4 + 5 + 6 + 789. \\
1293 &= 12 \times (3 \times 4 + 5 \times 6) + 789. \\
1294 &= 1 + (2 + 3 + 4) \times 56 + 789. \\
1295 &= 1^2 \times 3 \times 4 \times 56 + 7 \times 89. \\
1296 &= 1^2 + 3 \times 4 \times 56 + 7 \times 89. \\
1297 &= 1 \times 2 + 3 \times 4 \times 56 + 7 \times 89. \\
1298 &= 1234 + 5 + 6 \times 7 + 8 + 9. \\
1299 &= (1 + 2)^3 \times 45 + 67 + 8 + 9. \\
1300 &= 123 + 4 \times 5 + (6 + 7) \times 89. \\
1301 &= 1 \times 234 \times 5 + 6 \times 7 + 89. \\
1302 &= 1 + 234 \times 5 + 6 \times 7 + 89. \\
1303 &= 123 + 4^5 + 67 + 89. \\
1304 &= (12 + 3) \times 45 + 6 + 7 \times 89. \\
1305 &= (1 + 2) \times 34 \times 5 + 6 + 789. \\
1306 &= 12 \times 3 \times 4 + 5 + (6 + 7) \times 89. \\
1307 &= 12 + 3 \times 4 \times 56 + 7 \times 89. \\
1308 &= 1 + 23 \times (4 + 5) \times 6 + 7 \times 8 + 9. \\
1309 &= 1 \times 234 \times 5 + 67 + 8 \times 9. \\
1310 &= 1234 + 5 + 6 + 7 \times 8 + 9. \\
1311 &= 123 \times 4 + 5 \times 6 + 789. \\
1312 &= 1 + 2 + 34 \times 5 + 67 \times (8 + 9). \\
1313 &= 12 \times (3 \times 4 \times 5 + 6 \times 7) + 89. \\
1314 &= 1234 + 56 + 7 + 8 + 9. \\
1315 &= 1^2 + 3 \times 45 \times 6 + 7 \times 8 \times 9. \\
1316 &= 1 \times 2 + 3 \times 45 \times 6 + 7 \times 8 \times 9. \\
1317 &= 1 + 2 + 3 \times 45 \times 6 + 7 \times 8 \times 9. \\
1318 &= 1 + (2 + 3)^4 + 5 + 678 + 9. \\
1319 &= 1 \times 2 \times 345 + 6 + 7 \times 89. \\
1320 &= 1 + 2 \times 345 + 6 + 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1251 &= 9 + 8 \times 76 + 5^4 + 3^2 \times 1. \\
1252 &= 987 + 65 \times 4 + 3 + 2 \times 1. \\
1253 &= 987 + 65 \times 4 + 3 + 2 + 1. \\
1254 &= 987 + 65 \times 4 + 3 \times 2 + 1. \\
1255 &= 9 + (8 \times 7 + 6) \times 5 \times 4 + 3 + 2 + 1. \\
1256 &= 98 \times 7 + 6 + 543 + 21. \\
1257 &= 9 + 8 \times 76 + 5 \times 4 \times 32 \times 1. \\
1258 &= 9 + 8 \times 76 + 5 \times 4 \times 32 + 1. \\
1259 &= 98 + 7 \times 6 \times 5 \times 4 + 321. \\
1260 &= 9 + 876 + 54 + 321. \\
1261 &= 98 + 76 + 543 \times 2 + 1. \\
1262 &= 9 + 8 \times 76 + 5 \times 43 \times (2 + 1). \\
1263 &= 987 + 6 + 54 \times (3 + 2) \times 1. \\
1264 &= 987 + 6 + 54 \times (3 + 2) + 1. \\
1265 &= (98 + 7 \times 6 \times 5) \times 4 + 32 + 1. \\
1266 &= 9 + 8 \times 76 + 5^4 + 3 + 21. \\
1267 &= 98 \times 7 + 65 \times 4 + 321. \\
1268 &= 9 + 8 \times 7 + 6 + (54 + 3) \times 21. \\
1269 &= 9 \times 8 + 765 + 432 \times 1. \\
1270 &= 9 \times 8 + 765 + 432 + 1. \\
1271 &= 987 + 65 \times 4 + 3 + 21. \\
1272 &= (9 + 8 + 76 + 543) \times 2 \times 1. \\
1273 &= (9 + 8 + 76 + 543) \times 2 + 1. \\
1274 &= 9 + 8 \times 76 + 5^4 + 32 \times 1. \\
1275 &= 9 + 8 \times 76 + 5^4 + 32 + 1. \\
1276 &= 9 \times 87 + 6 + 54 \times 3^2 + 1. \\
1277 &= 987 + 6 \times (5 + 43) + 2 \times 1. \\
1278 &= 987 + 6 \times (5 + 43) + 2 + 1. \\
1279 &= 987 + 65 \times 4 + 32 \times 1. \\
1280 &= 987 + 65 \times 4 + 32 + 1. \\
1281 &= 9 \times 87 + 65 + 432 + 1. \\
1282 &= 987 + 6 + (5 + 4) \times 32 + 1. \\
1283 &= (98 + 7) \times (6 + 5) + 4 \times 32 \times 1. \\
1284 &= (98 + 7) \times (6 + 5) + 4 \times 32 + 1. \\
1285 &= ((9 + 8 \times 7 + 6) \times (5 + 4) + 3) \times 2 + 1. \\
1286 &= 9 \times 8 \times 7 + 65 \times 4 \times 3 + 2 \times 1. \\
1287 &= 9 \times 8 \times 7 + 65 \times 4 \times 3 + 2 + 1. \\
1288 &= 98 \times (7 + 6) + 5 + 4 + 3 + 2 \times 1. \\
1289 &= 98 \times (7 + 6) + 5 + 4 + 3 + 2 + 1. \\
1290 &= 9 + 8 + 7 + 6 + 5 \times 4 \times 3 \times 21. \\
1291 &= 9 + 8 \times 7 \times 6 + 5^4 + 321. \\
1292 &= 98 \times (7 + 6) + 5 + 4 + 3^2 \times 1. \\
1293 &= 98 \times (7 + 6) + 5 + 4 \times 3 + 2 \times 1. \\
1294 &= 98 \times (7 + 6) + 5 + 4 \times 3 + 2 + 1. \\
1295 &= 98 + 765 + 432 \times 1. \\
1296 &= 98 + 765 + 432 + 1. \\
1297 &= 9 \times (8 + 7) \times 6 + 54 \times 3^2 + 1. \\
1298 &= 9 + 8 + 7 \times (6 + 54) \times 3 + 21. \\
1299 &= 9 + 87 + 6 + (54 + 3) \times 21. \\
1300 &= 9 + 8 + 76 \times 5 + 43 \times 21. \\
1301 &= 98 \times (7 + 6) + 5 \times 4 + 3 \times 2 + 1. \\
1302 &= (98 + 76) \times 5 + 432 \times 1. \\
1303 &= (98 + 76) \times 5 + 432 + 1. \\
1304 &= 987 + 65 + 4 \times 3 \times 21. \\
1305 &= 9 \times 8 \times 7 + 65 \times 4 \times 3 + 21. \\
1306 &= (9 + 8) \times 76 + 5 + 4 + 3 + 2 \times 1. \\
1307 &= 98 \times (7 + 6) + 5 + 4 + 3 + 21. \\
1308 &= 98 + 7 + 6 + (54 + 3) \times 21. \\
1309 &= 9 + (8 + 7) \times 65 + 4 + 321. \\
1310 &= 987 + 65 \times 4 + 3 \times 21. \\
1311 &= 987 + 6 \times (5 + 4) \times 3 \times 2 \times 1. \\
1312 &= 987 + 6 \times (5 + 4) \times 3 \times 2 + 1. \\
1313 &= 9 + 8 \times (76 + 54 + 32 + 1). \\
1314 &= 98 + 76 \times (5 + 4 + 3 \times 2 + 1). \\
1315 &= 9 + 876 + 5 \times 43 \times 2 \times 1. \\
1316 &= 9 + 876 + 5 \times 43 \times 2 + 1. \\
1317 &= 987 + 6 + 54 \times 3 \times 2 \times 1. \\
1318 &= 987 + 6 + 54 \times 3 \times 2 + 1. \\
1319 &= 9 + 8 + 7 + 6 + 5 + 4 \times 321. \\
1320 &= 987 + 6 \times 54 + 3^2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1321 &= 1 + 2 \times 3^4 \times 5 + 6 + 7 \times 8 \times 9. \\
1322 &= 12 \times 3^4 + 5 + 6 \times 7 \times 8 + 9. \\
1323 &= 1234 + 5 + 67 + 8 + 9. \\
1324 &= 1234 + 5 + 6 + 7 + 8 \times 9. \\
1325 &= 123 + 45 + (6 + 7) \times 89. \\
1326 &= 12 + 3 \times 45 \times 6 + 7 \times 8 \times 9. \\
1327 &= 1 + 234 \times 5 + 67 + 89. \\
1328 &= 1234 + (5 + 6) \times 7 + 8 + 9. \\
1329 &= 1234 + 5 \times 6 + 7 \times 8 + 9. \\
1330 &= 1 + 23 \times (4 + 5) \times 6 + 78 + 9. \\
1331 &= (1 + 234) \times 5 + 67 + 89. \\
1332 &= 1234 + 5 + 6 + 78 + 9. \\
1333 &= 12 + (34 \times 5 + 6) \times 7 + 89. \\
1334 &= 1 \times 2 + 3 \times (4 + 56) \times 7 + 8 \times 9. \\
1335 &= (1 + 2)^3 \times 4 \times 5 + 6 + 789. \\
1336 &= 1 \times 2 \times (3 \times 4 + 567 + 89). \\
1337 &= 123 \times 4 + 56 + 789. \\
1338 &= 1234 + 5 + 6 \times (7 + 8) + 9. \\
1339 &= 12 + 34 \times 5 + (6 + 7) \times 89. \\
1340 &= 1 + 234 + 5 \times (6 + 7) \times (8 + 9). \\
1341 &= 1234 + 5 + 6 + 7 + 89. \\
1342 &= 12 + 34 \times (5 \times 6 + 7) + 8 \times 9. \\
1343 &= 1234 + 5 \times 6 + 7 + 8 \times 9. \\
1344 &= 1 + 2 \times 3 \times 4 \times 5 \times 6 + 7 \times 89. \\
1345 &= 1^{234} + 56 \times (7 + 8 + 9). \\
1346 &= 1 + (2 + 3 \times 4 + 5) \times 67 + 8 \times 9. \\
1347 &= 1 + 2 \times (34 + 567 + 8 \times 9). \\
1348 &= 1234 + 5 \times (6 + 7 + 8) + 9. \\
1349 &= 12 \times 3 \times 4 \times 5 + 6 + 7 \times 89. \\
1350 &= 1 + 2 \times (34 + 56) \times 7 + 89. \\
1351 &= 1234 + 5 \times 6 + 78 + 9. \\
1352 &= 1234 + 5 + (6 + 7) \times 8 + 9. \\
1353 &= 1234 + 5 + 6 \times 7 + 8 \times 9. \\
1354 &= 1 \times 2 \times 3 + 4 + 56 \times (7 + 8 + 9). \\
1355 &= 1234 + 56 + 7 \times 8 + 9. \\
1356 &= 1 + 2 \times 3^4 \times 5 + 67 \times 8 + 9. \\
1357 &= 1^{23} \times 4 \times 5 \times 67 + 8 + 9. \\
1358 &= 1^{23} + 4 \times 5 \times 67 + 8 + 9. \\
1359 &= (12 + 3 + 4) \times 5 \times 6 + 789. \\
1360 &= 1234 + 5 \times 6 + 7 + 89. \\
1361 &= 1^2 + 3 + 4 \times 5 \times 67 + 8 + 9. \\
1362 &= 1 \times 2 + 3 + 4 \times 5 \times 67 + 8 + 9. \\
1363 &= 1 + 2 + 3 + 4 \times 5 \times 67 + 8 + 9. \\
1364 &= 1 + 2 \times 3 + 4 \times 5 \times 67 + 8 + 9. \\
1365 &= 1 \times 2^3 + 4 \times 5 \times 67 + 8 + 9. \\
1366 &= 1 + 2^3 + 4 \times 5 \times 67 + 8 + 9. \\
1367 &= 12 \times 3^4 + 5 + 6 \times (7 \times 8 + 9). \\
1368 &= 123 + 456 + 789. \\
1369 &= 1234 + 56 + 7 + 8 \times 9. \\
1370 &= 1234 + 5 + 6 \times 7 + 89. \\
1371 &= 12 \times (3 + 45) + 6 + 789. \\
1372 &= 12 + 3 + 4 \times 5 \times 67 + 8 + 9. \\
1373 &= 1^2 + 3 + 4^5 + 6 \times 7 \times 8 + 9. \\
1374 &= 1^2 \times 3 \times 4 \times 56 + 78 \times 9. \\
1375 &= 1^2 + 3 \times 4 \times 56 + 78 \times 9. \\
1376 &= 1 \times 2 + 3 \times 4 \times 56 + 78 \times 9. \\
1377 &= 1234 + 56 + 78 + 9. \\
1378 &= 1234 + 5 + 67 + 8 \times 9. \\
1379 &= 12 \times 3^4 + 5 \times 67 + 8 \times 9. \\
1380 &= 1 \times 23 + 4 \times 5 \times 67 + 8 + 9. \\
1381 &= 12 \times 3^4 + 56 \times 7 + 8 + 9. \\
1382 &= 1 \times 2 \times (3 \times 4 + 56 + 7 \times 89). \\
1383 &= 1234 + 5 + 6 \times (7 + 8 + 9). \\
1384 &= 12 + 3 + 4^5 + 6 \times 7 \times 8 + 9. \\
1385 &= (1 + 2 + 3)^4 + 5 + 67 + 8 + 9. \\
1386 &= 1234 + 56 + 7 + 89. \\
1387 &= 1 + 2 \times 3^4 \times 5 + 6 \times (7 + 89). \\
1388 &= 1234 + 5 \times (6 + 7) + 89. \\
1389 &= 1 \times (2 + 3) \times 4 \times 5 \times 6 + 789. \\
1390 &= 12 + 34 + 56 \times (7 + 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1321 &= 987 + 6 \times 54 + 3^2 + 1. \\
1322 &= 9 + 876 + 5 + 432 \times 1. \\
1323 &= 9 + 876 + 5 + 432 + 1. \\
1324 &= 98 \times 7 + 6 + 5^4 + 3 \times 2 + 1. \\
1325 &= 98 \times (7 + 6) + 5 + 43 + 2 + 1. \\
1326 &= 98 \times 7 + 6 + 5^4 + 3^2 \times 1. \\
1327 &= 98 \times 7 + 6 + 5^4 + 3^2 + 1. \\
1328 &= (9 \times 8 + 7 + 6) \times 5 + 43 \times 21. \\
1329 &= (9 \times 8 + 7 + 6 \times 5) \times 4 \times 3 + 21. \\
1330 &= 9 + 8 + 76 \times (5 + 4 \times 3) + 21. \\
1331 &= 98 \times 7 + 6 \times 54 + 321. \\
1332 &= 987 + 6 \times (54 + 3) + 2 + 1. \\
1333 &= 98 \times 7 + 6 + 5 \times 4 \times 32 + 1. \\
1334 &= 987 + 6 + 5 \times 4 + 321. \\
1335 &= 987 + 6 \times 54 + 3 + 21. \\
1336 &= (9 + 8) \times 76 + 5 \times 4 + 3 + 21. \\
1337 &= 98 \times 7 + 6 + 5 \times 43 \times (2 + 1). \\
1338 &= 9 + 8 + 7 + 6 \times 5 + 4 \times 321. \\
1339 &= 9 + 8 + 7 + (654 + 3) \times 2 + 1. \\
1340 &= 9 + 8 + 7 \times (6 + 54 \times 3 + 21). \\
1341 &= 98 \times 7 + 6 + 5^4 + 3 + 21. \\
1342 &= 987 + 6 \times 5 + 4 + 321. \\
1343 &= 987 + 6 \times 54 + 32 \times 1. \\
1344 &= 987 + 6 \times 54 + 32 + 1. \\
1345 &= 98 \times 7 + 654 + 3 + 2 \times 1. \\
1346 &= 98 \times 7 + 654 + 3 + 2 + 1. \\
1347 &= 98 \times 7 + 654 + 3 \times 2 + 1. \\
1348 &= 9 + 8 + 7 \times 6 + 5 + 4 \times 321. \\
1349 &= 987 + 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
1350 &= 987 + 6 \times 5 \times 4 \times 3 + 2 + 1. \\
1351 &= (9 + 8) \times 76 + 54 + 3 + 2 \times 1. \\
1352 &= 987 + (6 + 5) \times 4 + 321. \\
1353 &= 9 \times 87 + 6 + 543 + 21. \\
1354 &= (9 + 8) \times 7 \times 6 + 5 \times 4 \times 32 \times 1. \\
1355 &= 9 \times 8 + 76 \times 5 + 43 \times 21. \\
1356 &= 9 \times 87 + 6 + (5 + 4) \times 3 \times 21. \\
1357 &= 9 + 8 \times 7 + 6 \times 5 \times 43 + 2 \times 1. \\
1358 &= 9 + 8 \times 7 + 6 \times 5 \times 43 + 2 + 1. \\
1359 &= 9 \times 87 + 6 \times (5 + 43) \times 2 \times 1. \\
1360 &= 98 \times (7 + 6) + 54 + 32 \times 1. \\
1361 &= (9 + 8) \times 76 + 5 + 43 + 21. \\
1362 &= 9 + 87 + 6 + 5 \times 4 \times 3 \times 21. \\
1363 &= 9 \times 8 \times (7 + 6 + 5) + 4 + 3 \times 21. \\
1364 &= 98 \times 7 + 654 + 3 + 21. \\
1365 &= 9 + 876 + 5 \times 4 \times (3 + 21). \\
1366 &= 98 \times (7 + 6) + 5 + 43 \times 2 + 1. \\
1367 &= (98 + 7 \times 6 + 543) \times 2 + 1. \\
1368 &= 987 + 6 + 54 + 321. \\
1369 &= (98 + 76 + 54) \times 3 \times 2 + 1. \\
1370 &= (9 + 8) \times 76 + 54 + 3 + 21. \\
1371 &= 9 \times 8 + 7 + 6 \times 5 \times 43 + 2 \times 1. \\
1372 &= 98 \times 7 + 654 + 32 \times 1. \\
1373 &= 98 \times 7 + 654 + 32 + 1. \\
1374 &= 987 + 6 \times 54 + 3 \times 21. \\
1375 &= 9 + 8 + 7 \times 65 + 43 \times 21. \\
1376 &= 9 + 8 \times 7 + 6 \times 5 \times 43 + 21. \\
1377 &= 987 + 65 + 4 + 321. \\
1378 &= (9 + 8) \times 76 + 54 + 32 \times 1. \\
1379 &= 9 + 8 \times 7 + 6 \times 5 + 4 \times 321. \\
1380 &= 98 \times 7 + 6 + 5^4 + 3 \times 21. \\
1381 &= 98 + 76 \times 5 + 43 \times 21. \\
1382 &= 9 + 8 + 76 + 5 + 4 \times 321. \\
1383 &= (9 + 8) \times 76 + 5 + 43 \times 2 \times 1. \\
1384 &= (9 + 8) \times 76 + 5 + 43 \times 2 + 1. \\
1385 &= 9 \times 8 + 76 \times (5 + 4 \times 3) + 21. \\
1386 &= (9 + 87 \times 6 + 54 \times 3) \times 2 \times 1. \\
1387 &= (9 + 87 \times 6 + 54 \times 3) \times 2 + 1. \\
1388 &= 9 + 87 + 6 \times 5 \times 43 + 2 \times 1. \\
1389 &= 9 + 87 + 6 \times 5 \times 43 + 2 + 1. \\
1390 &= 9 \times 8 + 7 + 6 \times 5 \times 43 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1391 &= 12 \times (34 + 5 \times 6) + 7 \times 89. \\
1392 &= 1^2 \times 3 \times 456 + 7 + 8 + 9. \\
1393 &= 12 \times 3 + 4 \times 5 \times 67 + 8 + 9. \\
1394 &= 1 \times 2 + 3 \times 456 + 7 + 8 + 9. \\
1395 &= 1234 + 5 + 67 + 89. \\
1396 &= 12 \times 3^4 + 5 \times 67 + 89. \\
1397 &= 1 + 234 + 5 + (6 + 7) \times 89. \\
1398 &= 1 \times 2 \times 345 + 6 + 78 \times 9. \\
1399 &= 1 + 2 \times 345 + 6 + 78 \times 9. \\
1400 &= 1234 + (5 + 6) \times 7 + 89. \\
1401 &= (123 + 4 + 5 + 6 \times 7) \times 8 + 9. \\
1402 &= 1^2 + 3 \times (45 + 6 + 7) \times 8 + 9. \\
1403 &= (1 + 23 + 4 + 5) \times 6 \times 7 + 8 + 9. \\
1404 &= 12 + 3 \times 456 + 7 + 8 + 9. \\
1405 &= 12 \times 3 + 4^5 + 6 \times 7 \times 8 + 9. \\
1406 &= 1 + 23 \times (4 + 5 \times 6) + 7 + 89. \\
1407 &= 12 \times 3 \times 4 \times 5 + 678 + 9. \\
1408 &= 1 + 2 \times (3 + 4) \times 56 + 7 \times 89. \\
1409 &= 1 \times 2 \times 3 \times 4 \times 56 + 7 \times 8 + 9. \\
1410 &= 1 + 2 \times 3 \times 4 \times 56 + 7 \times 8 + 9. \\
1411 &= (1^2 + 3)^4 \times 5 + 6 \times 7 + 89. \\
1412 &= 1^{23} \times 4 \times 5 \times 67 + 8 \times 9. \\
1413 &= 1^{23} + 4 \times 5 \times 67 + 8 \times 9. \\
1414 &= 1^2 + (3 + 4 + 5 + 6) \times 78 + 9. \\
1415 &= 1^2 \times 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1416 &= 1^2 + 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1417 &= 1 \times 2 + 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1418 &= 1 + 2 + 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1419 &= 1 + 2 \times 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1420 &= 1 \times 2^3 + 4 \times 5 \times 67 + 8 \times 9. \\
1421 &= 1 + 2^3 + 4 \times 5 \times 67 + 8 \times 9. \\
1422 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 + 78 \times 9. \\
1423 &= 1 \times 2 \times 3 \times 4 \times 56 + 7 + 8 \times 9. \\
1424 &= 1 + 2 \times 3 \times 4 \times 56 + 7 + 8 \times 9. \\
1425 &= 1234 + 56 + (7 + 8) \times 9. \\
1426 &= 1 + (2 + 3)^4 + 5 + 6 + 789. \\
1427 &= 12 + 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1428 &= 12 \times 3 \times 4 \times 5 + 6 + 78 \times 9. \\
1429 &= 1^{23} \times 4 \times 5 \times 67 + 89. \\
1430 &= 1^{23} + 4 \times 5 \times 67 + 89. \\
1431 &= 1 \times 2 \times 3 \times 4 \times 56 + 78 + 9. \\
1432 &= 1 + 2 \times 3 \times 4 \times 56 + 78 + 9. \\
1433 &= 1^2 \times 3 \times 45 \times 6 + 7 \times 89. \\
1434 &= 1 \times 2 + 3 + 4 \times 5 \times 67 + 89. \\
1435 &= 1 \times 23 + 4 \times 5 \times 67 + 8 \times 9. \\
1436 &= 1 + 2 + 3 \times 45 \times 6 + 7 \times 89. \\
1437 &= 1 \times 2^3 + 4 \times 5 \times 67 + 89. \\
1438 &= 1 + 2^3 + 4 \times 5 \times 67 + 89. \\
1439 &= 1 \times 2 \times 3^4 + 5 + 6 + 7 \times 89. \\
1440 &= 1 \times 2 \times 3 \times 4 \times 56 + 7 + 89. \\
1441 &= 1 + 2 \times 3 \times 4 \times 56 + 7 + 89. \\
1442 &= 1 \times 2 + 3 \times (456 + 7 + 8 + 9). \\
1443 &= 1 + 2 + 3 \times (456 + 7 + 8 + 9). \\
1444 &= 12 + 3 + 4 \times 5 \times 67 + 89. \\
1445 &= 12 + 3 \times 456 + 7 \times 8 + 9. \\
1446 &= 1 \times 2 \times 345 + (6 + 78) \times 9. \\
1447 &= 1^2 \times 3 \times 456 + 7 + 8 \times 9. \\
1448 &= 12 \times 3 + 4 \times 5 \times 67 + 8 \times 9. \\
1449 &= 1 \times 2 + 3 \times 456 + 7 + 8 \times 9. \\
1450 &= 1 + 2 + 3 \times 456 + 7 + 8 \times 9. \\
1451 &= 1 + 2 \times 34 \times (5 + 6) + 78 \times 9. \\
1452 &= 1 \times 23 + 4 \times 5 \times 67 + 89. \\
1453 &= 12 \times 3^4 + 56 \times 7 + 89. \\
1454 &= 12 \times 3^4 + 5 + 6 \times 78 + 9. \\
1455 &= 1^2 \times 3 \times 456 + 78 + 9. \\
1456 &= 1^2 + 3 \times 456 + 78 + 9. \\
1457 &= 1 \times 2 + 3 \times 456 + 78 + 9. \\
1458 &= 1 + 2 + 3 \times 456 + 78 + 9. \\
1459 &= 12 + 3 \times 456 + 7 + 8 \times 9. \\
1460 &= 1234 + 5 + (6 + 7) \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1391 &= 9 + 87 + 6 + 5 + 4 \times 321. \\
1392 &= 98 + 76 \times (5 + 4 \times 3) + 2 \times 1. \\
1393 &= 9 \times 8 + 7 + 6 \times 5 + 4 \times 321. \\
1394 &= 9 \times 8 + 7 + (654 + 3) \times 2 + 1. \\
1395 &= 98 \times (7 + 6) + 5 \times 4 \times 3 \times 2 + 1. \\
1396 &= 9 + 87 + 65 \times 4 \times (3 + 2) \times 1. \\
1397 &= 98 + 7 + 6 \times 5 \times 43 + 2 \times 1. \\
1398 &= 98 + 7 + 6 \times 5 \times 43 + 2 + 1. \\
1399 &= 9 + 87 \times (6 + 5) + 432 + 1. \\
1400 &= 98 + 7 + 6 + 5 + 4 \times 321. \\
1401 &= 987 + (65 + 4) \times 3 \times 2 \times 1. \\
1402 &= 987 + (65 + 4) \times 3 \times 2 + 1. \\
1403 &= 98 \times 7 + 654 + 3 \times 21. \\
1404 &= (9 + 8 + 7) \times 6 + 5 \times 4 \times 3 \times 21. \\
1405 &= 98 + 7 + 65 \times 4 \times (3 + 2) \times 1. \\
1406 &= 98 \times 7 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
1407 &= 9 + 87 + 6 \times 5 \times 43 + 21. \\
1408 &= 9 \times 8 + 76 + 5 \times 4 \times 3 \times 21. \\
1409 &= (9 + 8) \times 76 + 54 + 3 \times 21. \\
1410 &= 9 + 87 + 6 \times 5 + 4 \times 321. \\
1411 &= 98 + 76 \times (5 + 4 \times 3) + 21. \\
1412 &= (9 + 8) \times 7 + 6 \times 5 \times 43 + 2 + 1. \\
1413 &= (9 + 87 + 6) \times 5 + 43 \times 21. \\
1414 &= 9 + 8 \times 7 + 65 + 4 \times 321. \\
1415 &= 9 \times 8 \times 7 + 65 \times (4 + 3) \times 2 + 1. \\
1416 &= 98 + 7 + 6 \times 5 \times 43 + 21. \\
1417 &= 9 + (8 + 7) \times 65 + 432 + 1. \\
1418 &= 9 \times 8 \times 7 + 6 + 5 + 43 \times 21. \\
1419 &= 98 + 7 + 6 \times 5 + 4 \times 321. \\
1420 &= 9 \times 87 + 6 + 5^4 + 3 + 2 + 1. \\
1421 &= 9 \times 87 + 6 + 5^4 + 3 \times 2 + 1. \\
1422 &= (9 + 8) \times (76 + 5) + 43 + 2 \times 1. \\
1423 &= 987 + 6 + 5 \times 43 \times 2 + 1. \\
1424 &= 987 + 6 + 5 \times 43 \times 2 + 1. \\
1425 &= (9 + 8) \times 76 + 5 + 4 \times 32 \times 1. \\
1426 &= (9 + 8) \times 76 + 5 + 4 \times 32 + 1. \\
1427 &= 98 \times 7 + 6 + 5 \times (4 + 3) \times 21. \\
1428 &= 987 + 6 \times 5 \times 4 + 321. \\
1429 &= 98 + 7 \times 6 + 5 + 4 \times 321. \\
1430 &= 9 \times 8 + 7 \times 65 + 43 \times 21. \\
1431 &= 987 + 6 + 5 + 432 + 1. \\
1432 &= 9 + 8 \times 7 \times 6 + 543 \times 2 + 1. \\
1433 &= 9 + 8 + 7 + 65 + 4^3 \times 21. \\
1434 &= 98 + 76 + 5 \times 4 \times 3 \times 21. \\
1435 &= (98 + 76 + 543) \times 2 + 1. \\
1436 &= 98 + 7 \times 6 + 54 \times (3 + 21). \\
1437 &= 9 \times 8 + 76 + 5 + 4 \times 321. \\
1438 &= 9 \times 87 + 6 + 5^4 + 3 + 21. \\
1439 &= 9 + 87 \times 6 + 5 + 43 \times 21. \\
1440 &= 9 + 8 + 7 + 6 \times (5 \times 43 + 21). \\
1441 &= 9 \times (8 + 7) \times 6 + 5^4 + 3 \times 2 \times 1. \\
1442 &= 9 \times 87 + 654 + 3 + 2 \times 1. \\
1443 &= 9 \times 87 + 654 + 3 + 2 + 1. \\
1444 &= 9 \times 87 + 654 + 3 \times 2 + 1. \\
1445 &= 9 + 87 + 65 + 4 \times 321. \\
1446 &= 9 \times 87 + 654 + 3^2 \times 1. \\
1447 &= 9 \times 87 + 654 + 3^2 + 1. \\
1448 &= (98 + 76 \times 5 + 4) \times 3 + 2 \times 1. \\
1449 &= 9 + 876 + 543 + 21. \\
1450 &= 987 + 6 \times 5 + 432 + 1. \\
1451 &= 9 + 87 + 6 + 5 + 4^3 \times 21. \\
1452 &= 9 + 876 + (5 + 4) \times 3 \times 21. \\
1453 &= 9 \times 8 + 7 + 6 \times 5 + 4^3 \times 21. \\
1454 &= 98 + 7 + 65 + 4 \times 321. \\
1455 &= 987 + 6 \times (54 + 3 + 21). \\
1456 &= 98 + 7 \times 65 + 43 \times 21. \\
1457 &= 98 \times (7 + 6) + 54 \times 3 + 21. \\
1458 &= 9 \times 8 + (7 + 6 + 5 + 4) \times 3 \times 21. \\
1459 &= 98 + 7 \times (6 + 5) + 4 \times 321. \\
1460 &= 98 + 7 + 6 + 5 + 4^3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1461 &= 1234 + 5 \times 6 \times 7 + 8 + 9. \\
1462 &= 1^2 + 3 \times 4 \times 56 + 789. \\
1463 &= 1 \times 2 + 3 \times 4 \times 56 + 789. \\
1464 &= 1 + 2 + 3 \times 4 \times 56 + 789. \\
1465 &= 12 \times 3 + 4 \times 5 \times 67 + 89. \\
1466 &= 1 \times 2 + 3 \times 456 + 7 + 89. \\
1467 &= 12 + 3 \times 456 + 78 + 9. \\
1468 &= 1 + 23 \times (4 + 56) + 78 + 9. \\
1469 &= 12 \times (3 + 45 + 67) + 89. \\
1470 &= (12 + 3) \times 45 + 6 + 789. \\
1471 &= 123 + 4 + 56 \times (7 + 8 + 9). \\
1472 &= (12 \times 3 \times 4 + 56) \times 7 + 8 \times 9. \\
1473 &= 12 + 3 \times 4 \times 56 + 789. \\
1474 &= 1 \times 2 \times (3^4 + 567 + 89). \\
1475 &= 1 + 2 \times (3^4 + 567 + 89). \\
1476 &= 12 + 3 \times 456 + 7 + 89. \\
1477 &= 1 + 23 \times (4 + 56) + 7 + 89. \\
1478 &= 1 + 2 + 3^4 \times (5 + 6 + 7) + 8 + 9. \\
1479 &= 1 \times 2 \times 34 \times 5 + 67 \times (8 + 9). \\
1480 &= 123 + 4 \times 5 \times 67 + 8 + 9. \\
1481 &= (123 + 4 \times 5) \times 6 + 7 \times 89. \\
1482 &= 12 \times 3^4 + 5 \times (6 + 7 + 89). \\
1483 &= (1 + 2 \times 3 + 4) \times (56 + 78) + 9. \\
1484 &= 1^2 \times 345 + 67 \times (8 + 9). \\
1485 &= 1 \times 2 \times 345 + 6 + 789. \\
1486 &= 1 + 2 \times 345 + 6 + 789. \\
1487 &= 12 \times 3^4 + 5 + 6 + 7 \times 8 \times 9. \\
1488 &= 12 \times 3 \times 4 + 56 \times (7 + 8 + 9). \\
1489 &= 1 \times 2 + 3 \times 456 + 7 \times (8 + 9). \\
1490 &= 12 + 3 \times (456 + 7) + 89. \\
1491 &= 1 \times 2 \times (345 + 6) + 789. \\
1492 &= 123 + 4^5 + 6 \times 7 \times 8 + 9. \\
1493 &= 1234 + 5 \times (6 \times 7 + 8) + 9. \\
1494 &= (123 + 4 + 5) \times 6 + 78 \times 9. \\
1495 &= 1 + 2 \times (3 \times 4 \times 5 + 678 + 9). \\
1496 &= 12 + 345 + 67 \times (8 + 9). \\
1497 &= 1 \times 2 \times 3^4 \times 5 + 678 + 9. \\
1498 &= 1 + 2 \times 3^4 \times 5 + 678 + 9. \\
1499 &= 12 + 3 \times 456 + 7 \times (8 + 9). \\
1500 &= 1 \times 2 \times 345 + 6 \times (7 + 8) \times 9. \\
1501 &= 1^{23} \times 4^5 + 6 \times 78 + 9. \\
1502 &= 1^{23} + 4^5 + 6 \times 78 + 9. \\
1503 &= (1 + 2) \times (345 + 67 + 89). \\
1504 &= 1^2 \times 3 + 4^5 + 6 \times 78 + 9. \\
1505 &= 1^2 + 3 + 4^5 + 6 \times 78 + 9. \\
1506 &= 1 \times 2 + 3 + 4^5 + 6 \times 78 + 9. \\
1507 &= 1 + 2 + 3 + 4^5 + 6 \times 78 + 9. \\
1508 &= 1 + 2 \times 3 + 4^5 + 6 \times 78 + 9. \\
1509 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 + 789. \\
1510 &= 1 + 2 \times 3 \times 4 \times 5 \times 6 + 789. \\
1511 &= 1 \times (2 + 3^4) \times (5 + 6 + 7) + 8 + 9. \\
1512 &= 1 \times 23 \times 45 + 6 \times 78 + 9. \\
1513 &= 1 + 23 \times 45 + 6 \times 78 + 9. \\
1514 &= 1 \times 2 + 3 \times 45 \times 6 + 78 \times 9. \\
1515 &= 12 \times 3 \times 4 \times 5 + 6 + 789. \\
1516 &= 1234 + 5 \times 6 \times 7 + 8 \times 9. \\
1517 &= 1 \times 2^3 \times 45 + (6 + 7) \times 89. \\
1518 &= 1 \times 2 \times 3^4 \times 5 + 6 + 78 \times 9. \\
1519 &= 1 + 2 \times 3^4 \times 5 + 6 + 78 \times 9. \\
1520 &= (1 + 234) \times 5 + 6 \times 7 \times 8 + 9. \\
1521 &= 1 \times (234 + 5) \times 6 + 78 + 9. \\
1522 &= 12 \times 3^4 + 5 + 67 \times 8 + 9. \\
1523 &= 123 + 4 \times (5 + 6 \times 7 \times 8 + 9). \\
1524 &= 12 + 3 \times 45 \times 6 + 78 \times 9. \\
1525 &= 1 + 23 + 4^5 + 6 \times 78 + 9. \\
1526 &= 1 \times 2 + 34 \times 5 \times 6 + 7 \times 8 \times 9. \\
1527 &= 1 + 2 + 34 \times 5 \times 6 + 7 \times 8 \times 9. \\
1528 &= 12 + 3 + 4 \times (5 + 6 \times 7) + 8 + 9. \\
1529 &= 1 \times 2 \times 3 \times 4 \times (56 + 7) + 8 + 9. \\
1530 &= 1 \times (234 + 5) \times 6 + 7 + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1461 &= 9 \times 87 + 654 + 3 + 21. \\
1462 &= 987 + (6 + 5) \times 43 + 2 \times 1. \\
1463 &= 98 + 76 + 5 + 4 \times 321. \\
1464 &= 9 + (8 + 7 + 6) \times 54 + 321. \\
1465 &= 9 + 8 \times 7 \times (6 + 5 + 4 \times 3 + 2 + 1). \\
1466 &= (9 \times 8 + 7 + 6) \times (5 + 4 \times 3) + 21. \\
1467 &= 987 + (6 + 5 + 4) \times 32 \times 1. \\
1468 &= 98 \times 7 + 65 \times 4 \times 3 + 2 \times 1. \\
1469 &= 9 \times 87 + 654 + 32 \times 1. \\
1470 &= 9 \times 87 + 654 + 32 + 1. \\
1471 &= 98 \times (7 + 6) + 5 + 4^3 \times (2 + 1). \\
1472 &= 9 \times 8 \times 7 + 65 + 43 \times 21. \\
1473 &= 9 + 8 \times 7 + (6 + 5) \times 4 \times 32 \times 1. \\
1474 &= 9 + 8 \times 7 + 65 + 4^3 \times 21. \\
1475 &= (9 + 8) \times 76 + 54 \times 3 + 21. \\
1476 &= 987 + 6 + (5 \times 4 + 3) \times 21. \\
1477 &= 9 + 87 \times 6 + 5^4 + 321. \\
1478 &= 9 \times 8 \times 7 + 6 \times 54 \times 3 + 2 \times 1. \\
1479 &= 9 \times 8 \times 7 + 654 + 321. \\
1480 &= 987 + 6 + 54 \times 3^2 + 1. \\
1481 &= 9 \times 8 \times (7 + 6) + 543 + 2 \times 1. \\
1482 &= 9 \times 8 \times (7 + 6) + 543 + 2 + 1. \\
1483 &= (9 + 8 \times 7 + 6) \times 5 \times 4 + 3 \times 21. \\
1484 &= 987 + 65 + 432 \times 1. \\
1485 &= 987 + 65 + 432 + 1. \\
1486 &= (98 + 7 + 6 + 54) \times 3^2 + 1. \\
1487 &= 98 \times 7 + 65 \times 4 \times 3 + 21. \\
1488 &= 9 \times 8 + 7 + 65 + 4^3 \times 21. \\
1489 &= 98 + 7 \times 6 + 5 + 4^3 \times 21. \\
1490 &= 9 \times 87 + (6 + 5) \times 4^3 + 2 + 1. \\
1491 &= 98 \times (7 + 6) + 5 \times 43 + 2 \times 1. \\
1492 &= 98 \times (7 + 6) + 5 \times 43 + 2 + 1. \\
1493 &= (9 + 8) \times 7 + 6 \times 5 + 4^3 \times 21. \\
1494 &= 9 \times 8 \times 7 + 6 \times (54 \times 3 + 2 + 1). \\
1495 &= 9 \times (8 + 7) \times (6 + 5) + 4 + 3 \times 2 \times 1. \\
1496 &= 98 + (7 \times 65 + 4) \times 3 + 21. \\
1497 &= 9 + 8 \times (76 + 5 + 4 \times 3) \times 2 \times 1. \\
1498 &= 9 \times 87 + 65 \times (4 + 3 \times 2 + 1). \\
1499 &= (98 \times 7 + 6 + 54 + 3) \times 2 + 1. \\
1500 &= 9 \times 87 + 654 + 3 \times 21. \\
1501 &= 9 \times 8 + 7 \times 6 \times (5 + 4 \times 3) \times 2 + 1. \\
1502 &= 98 \times 7 + (6 \times 5 + 4) \times (3 + 21). \\
1503 &= 9 \times 87 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
1504 &= 9 \times 87 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
1505 &= 9 + 87 + 65 + 4^3 \times 21. \\
1506 &= (9 + 87 + 654 + 3) \times 2 \times 1. \\
1507 &= (9 + 87 + 654 + 3) \times 2 + 1. \\
1508 &= (9 + 8 + 7 + 6 + 5) \times 43 + 2 + 1. \\
1509 &= 987 + 6 \times (54 + 32 + 1). \\
1510 &= 98 \times (7 + 6) + 5 \times 43 + 21. \\
1511 &= 9 + 8 + 7 \times 6 \times 5 + 4 \times 321. \\
1512 &= 9 + 87 + 6 \times (5 \times 43 + 21). \\
1513 &= 98 + 7 + (6 + 5) \times 4 \times 32 \times 1. \\
1514 &= 98 + 7 + 65 + 4^3 \times 21. \\
1515 &= 9 + 876 + 5^4 + 3 + 2 \times 1. \\
1516 &= 9 + 876 + 5^4 + 3 + 2 + 1. \\
1517 &= 9 + 876 + 5^4 + 3 \times 2 + 1. \\
1518 &= 98 \times 7 + (6 + 5 \times 4) \times 32 \times 1. \\
1519 &= 9 + 876 + 5^4 + 3^2 \times 1. \\
1520 &= 9 + 876 + 5^4 + 3^2 + 1. \\
1521 &= 9 \times 87 + 6 + (5 + 4)^3 + 2 + 1. \\
1522 &= 9 + 8 \times (7 \times 6 + 5) \times 4 + 3^2 \times 1. \\
1523 &= 98 + 76 + 5 + 4^3 \times 21. \\
1524 &= 9 \times 87 + 6 + 5 \times (4 + 3) \times 21. \\
1525 &= 9 + 876 + 5 \times 4 \times 32 \times 1. \\
1526 &= 9 + 876 + 5 \times 4 \times 32 + 1. \\
1527 &= (98 \times 7 + 65 + 4 \times 3) \times 2 + 1. \\
1528 &= (9 + 8) \times 76 + 5 \times 43 + 21. \\
1529 &= 9 + 8 + 7 \times (65 + 43) \times 2 \times 1. \\
1530 &= 9 + 8 + 7 \times (65 + 43) \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1531 &= 1 + (234 + 5) \times 6 + 7 + 89. \\
1532 &= 12 \times 3^4 + 56 + 7 \times 8 \times 9. \\
1533 &= 1234 + 5 \times 6 \times 7 + 89. \\
1534 &= 1^{23} \times 4^5 + 6 + 7 \times 8 \times 9. \\
1535 &= 123 + 4 \times 5 \times 67 + 8 \times 9. \\
1536 &= 12 + 34 \times 5 \times 6 + 7 \times 8 \times 9. \\
1537 &= 12 \times 3 + 4^5 + 6 \times 78 + 9. \\
1538 &= 1^2 + 3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1539 &= 1 \times 2 + 3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1540 &= 1 + 2 + 3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1541 &= 1 + 2 \times 3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1542 &= 1 \times 2^3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1543 &= 1 + 2^3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1544 &= 1 \times 2 + (3 + 4) \times 5 \times 6 \times 7 + 8 \times 9. \\
1545 &= 1 \times 23 \times 45 + 6 + 7 \times 8 \times 9. \\
1546 &= 1 + 23 \times 45 + 6 + 7 \times 8 \times 9. \\
1547 &= 1^{23} + 4^5 + 6 \times (78 + 9). \\
1548 &= 1 + 2 \times 34 \times (5 + 6) + 789. \\
1549 &= 12 + 3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1550 &= 1^2 + 3 + 4^5 + 6 \times (78 + 9). \\
1551 &= 12 + 34 \times (5 \times 6 + 7 + 8) + 9. \\
1552 &= 123 + 4 \times 5 \times 67 + 89. \\
1553 &= 1 + 2 \times 3 + 4^5 + 6 \times (78 + 9). \\
1554 &= (12 + 3) \times (45 + 6) + 789. \\
1555 &= 12 \times (3 + 4 \times 5 \times 6) + 7 + 8 \times 9. \\
1556 &= 12 \times 3^4 + 567 + 8 + 9. \\
1557 &= 1 \times 23 + 4^5 + 6 + 7 \times 8 \times 9. \\
1558 &= 1 + 23 + 4^5 + 6 + 7 \times 8 \times 9. \\
1559 &= (12 + 3 + 4 \times 5) \times 6 \times 7 + 89. \\
1560 &= (1 + 2)^3 \times 45 + 6 \times 7 \times 8 + 9. \\
1561 &= 1 \times 2 + (3 + 4) \times 5 \times 6 \times 7 + 89. \\
1562 &= 1 + 2 + (3 + 4) \times 5 \times 6 \times 7 + 89. \\
1563 &= 12 \times (3 + 4 \times 5 \times 6) + 78 + 9. \\
1564 &= 1 \times 2 + 3^4 \times 5 + (6 + 7) \times 89. \\
1565 &= 1 \times 2 + 3 \times (456 + 7 \times 8 + 9). \\
1566 &= (12 \times 3 + 4 + 56 + 78) \times 9. \\
1567 &= 1 + 2 \times 3^4 \times 5 + (6 + 78) \times 9. \\
1568 &= (12 + 3 + 4) \times 56 + 7 \times 8 \times 9. \\
1569 &= 1^{23} \times 4^5 + 67 \times 8 + 9. \\
1570 &= 12 \times 3 + 4^5 + 6 + 7 \times 8 \times 9. \\
1571 &= 1 \times 23 \times (4 + 5 \times 6) + 789. \\
1572 &= 1^2 \times 3 + 4^5 + 67 \times 8 + 9. \\
1573 &= 1^2 + 3 + 4^5 + 67 \times 8 + 9. \\
1574 &= 1 \times 2 + 3 + 4^5 + 67 \times 8 + 9. \\
1575 &= 1 \times 2 \times 3 + 4^5 + 67 \times 8 + 9. \\
1576 &= 1 + 2 \times 3 + 4^5 + 67 \times 8 + 9. \\
1577 &= 1 \times 2^3 + 4^5 + 67 \times 8 + 9. \\
1578 &= 1 + 2^3 + 4^5 + 67 \times 8 + 9. \\
1579 &= 1 + 234 + 56 \times (7 + 8 + 9). \\
1580 &= 1 \times 23 \times 45 + 67 \times 8 + 9. \\
1581 &= 1 + 23 \times 45 + 67 \times 8 + 9. \\
1582 &= 12 \times 3 + 4^5 + 6 \times (78 + 9). \\
1583 &= 1 \times 2^3 \times 4 \times 5 \times 6 + 7 \times 89. \\
1584 &= 1234 + 5 + 6 \times 7 \times 8 + 9. \\
1585 &= 1^{23} \times 4 \times 56 \times 7 + 8 + 9. \\
1586 &= 1234 + 5 \times 67 + 8 + 9. \\
1587 &= 1 \times 2 + 3 + 4^5 + (6 + 7 \times 8) \times 9. \\
1588 &= 1^2 \times 3 + 4 \times 56 \times 7 + 8 + 9. \\
1589 &= 1^2 + 3 + 4 \times 56 \times 7 + 8 + 9. \\
1590 &= 1 \times 2 + 3 + 4 \times 56 \times 7 + 8 + 9. \\
1591 &= 1 \times 2 \times 3 + 4 \times 56 \times 7 + 8 + 9. \\
1592 &= 1 + 2 \times 3 + 4 \times 56 \times 7 + 8 + 9. \\
1593 &= 1 + 23 + 4^5 + 67 \times 8 + 9. \\
1594 &= 1 + 2^3 + 4 \times 56 \times 7 + 8 + 9. \\
1595 &= (1 + 2 + 3)^4 + 5 \times 6 \times 7 + 89. \\
1596 &= (1 + 2)^3 + 4^5 + 67 \times 8 + 9. \\
1597 &= 123 \times 4 + 5 \times (6 + 7) \times (8 + 9). \\
1598 &= (1^2 + 3) \times 4 \times 56 + 78 + 9. \\
1599 &= 1^2 \times 3 \times 45 \times 6 + 789. \\
1600 &= 12 + 3 + 4 \times 56 \times 7 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1531 &= 98 \times (7 + 6) + 5 + 4 \times 3 \times 21. \\
1532 &= (9 + 8) \times (7 + 6 \times 5) + 43 \times 21. \\
1533 &= (9 + 87 + 6 \times 5) \times 4 \times 3 + 21. \\
1534 &= 9 + 876 + 5^4 + 3 + 21. \\
1535 &= (9 \times 8 \times 7 + 65 \times 4 + 3) \times 2 + 1. \\
1536 &= 9 + 8 + 7 + 6 \times (5 + 4 + 3) \times 21. \\
1537 &= 9 + 8 \times (7 \times 6 + 5) \times 4 + 3 + 21. \\
1538 &= 987 + 6 + 543 + 2 \times 1. \\
1539 &= 987 + 6 + 543 + 2 + 1. \\
1540 &= 9 \times 8 \times 7 + 6 + 5 + 4(3 + 2) + 1. \\
1541 &= 9 + (8 + 7) \times (6 \times 5 + 4) \times 3 + 2 \times 1. \\
1542 &= 9 + 8 + 76 \times 5 \times 4 + 3 + 2 \times 1. \\
1543 &= 9 + 876 + 5^4 + 32 + 1. \\
1544 &= 9 + 8 + 76 \times 5 \times 4 + 3 \times 2 + 1. \\
1545 &= 9 \times 8 + 7 \times 6 \times 5 \times (4 + 3) + 2 + 1. \\
1546 &= 9 + 8 + 76 \times 5 \times 4 + 3^2 \times 1. \\
1547 &= 9 + 8 + 76 \times 5 \times 4 + 3^2 + 1. \\
1548 &= 9 \times 8 \times (7 + 6 + 5) + 4 \times 3 \times 21. \\
1549 &= (9 + 8) \times 76 + 5 + 4 \times 3 \times 21. \\
1550 &= 98 + 7 \times (65 + 4) \times 3 + 2 + 1. \\
1551 &= 9 + 87 + 6 + (5 + 4^3) \times 21. \\
1552 &= (9 \times 8 + 76 + 5^4 + 3) \times 2 \times 1. \\
1553 &= (98 + 7 \times 6 \times 5) \times 4 + 321. \\
1554 &= (98 + 7 + 6) \times (5 + 4 + 3 + 2 \times 1). \\
1555 &= (98 + 7 + 6) \times (5 + 4 + 3 + 2) + 1. \\
1556 &= 9 + (8 + 7 \times 6 \times 5) \times (4 + 3) + 21. \\
1557 &= 987 + 6 + 543 + 21. \\
1558 &= (9 + 8 \times 76 + 54 \times 3) \times 2 \times 1. \\
1559 &= (9 + 8 \times 76 + 54 \times 3) \times 2 + 1. \\
1560 &= 987 + 6 + (5 + 4) \times 3 \times 21. \\
1561 &= 9 + 8 + 76 \times 5 \times 4 + 3 + 21. \\
1562 &= (9 + 8 \times 7 + 65) \times 4 \times 3 + 2 \times 1. \\
1563 &= 9 + 8 \times 76 + 5^4 + 321. \\
1564 &= 987 + 6 \times (5 + 43) \times 2 + 1. \\
1565 &= 9 \times 87 + 65 \times 4 \times 3 + 2 \times 1. \\
1566 &= 9 \times 8 + 7 \times 6 \times 5 + 4 \times 321. \\
1567 &= 9 + (8 + 76 \times 5) \times 4 + 3 + 2 + 1. \\
1568 &= 987 + 65 \times 4 + 321. \\
1569 &= 9 + 8 + 76 \times 5 \times 4 + 32 \times 1. \\
1570 &= 9 + 8 + 76 \times 5 \times 4 + 32 + 1. \\
1571 &= 9 + 8 + 7 \times 6 \times 5 + 4^3 \times 21. \\
1572 &= 987 + 65 \times (4 + 3 + 2 \times 1). \\
1573 &= 9 + 876 + 5^4 + 3 \times 21. \\
1574 &= (9 + 8 + 7) \times 65 + 4 \times 3 + 2 \times 1. \\
1575 &= (9 + 8 + 7) \times 65 + 4 \times 3 + 2 + 1. \\
1576 &= (98 + 7) \times 6 + 5^4 + 321. \\
1577 &= 9 + 8 + (7 + 6) \times 5 \times 4 \times 3 \times 2 \times 1. \\
1578 &= 9 + 87 \times (6 + 5 + 4 + 3) + 2 + 1. \\
1579 &= (9 + 8 + 7 \times 6) \times 5 + 4 \times 321. \\
1580 &= (98 + 7) \times (6 + 5 + 4) + 3 + 2 \times 1. \\
1581 &= (9 + 8 \times 7 + 65) \times 4 \times 3 + 21. \\
1582 &= 9 \times 87 + 6 \times (5 + 4 \times 32) + 1. \\
1583 &= (9 + 8) \times (76 + 5 + 4 \times 3) + 2 \times 1. \\
1584 &= 9 \times 87 + 65 \times 4 \times 3 + 21. \\
1585 &= 9 + 8 + 7 + 65 \times 4 \times 3 \times 2 + 1. \\
1586 &= 98 + (7 \times 6 + 5 \times 4) \times (3 + 21). \\
1587 &= 987 + 6 \times 5 \times 4 \times (3 + 2) \times 1. \\
1588 &= 987 + 6 \times 5 \times 4 \times (3 + 2) + 1. \\
1589 &= 98 + 7 \times 6 \times 5 \times (4 + 3) + 21. \\
1590 &= 9 \times 8 \times (7 + 6 + 5 + 4) + 3 \times 2 \times 1. \\
1591 &= 9 \times 8 \times (7 + 6 + 5 + 4) + 3 \times 2 + 1. \\
1592 &= 98 + 7 \times 6 \times 5 + 4 \times 321. \\
1593 &= 9 + (8 + 76 \times 5) \times 4 + 32 \times 1. \\
1594 &= (9 + 8 + 76 \times 5) \times 4 + 3 \times 2 \times 1. \\
1595 &= (9 + 8 + 76 \times 5) \times 4 + 3 \times 2 + 1. \\
1596 &= 9 \times 8 \times 7 + 6 + 543 \times 2 \times 1. \\
1597 &= 9 \times 8 + 76 \times 5 \times 4 + 3 + 2 \times 1. \\
1598 &= 9 \times 8 + 76 \times 5 \times 4 + 3 + 2 + 1. \\
1599 &= 9 \times 8 + 76 \times 5 \times 4 + 3 \times 2 + 1. \\
1600 &= 98 \times 7 + 6 + 5 + 43 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1601 &= 1 \times 2 + 3 \times 45 \times 6 + 789. \\
1602 &= 1 + 2 + 3 \times 45 \times 6 + 789. \\
1603 &= 1^2 \times 3 + 4^5 + 6 \times (7 + 89). \\
1604 &= 1^2 + 3 + 4^5 + 6 \times (7 + 89). \\
1605 &= 12 \times 3 + 4^5 + 67 \times 8 + 9. \\
1606 &= 12 \times 3^4 + 5 + 6 + 7 \times 89. \\
1607 &= 1 + 2 \times 3 + 4^5 + 6 \times (7 + 89). \\
1608 &= 1 \times 23 + 4 \times 56 \times 7 + 8 + 9. \\
1609 &= 1 + 23 + 4 \times 56 \times 7 + 8 + 9. \\
1610 &= (12 + 34) \times (5 + 6 + 7 + 8 + 9). \\
1611 &= 12 + 3 \times 45 \times 6 + 789. \\
1612 &= 1 + 23 \times 45 + 6 \times (7 + 89). \\
1613 &= 12 \times (3 \times 4 \times 5 + 67) + 89. \\
1614 &= 1 \times 2 \times (3 + 4 + 5 + 6 + 789). \\
1615 &= 12 + 3 + 4^5 + 6 \times (7 + 89). \\
1616 &= 1 + (2 \times 3^4 + 56) \times 7 + 89. \\
1617 &= (1 + 2 + 3 \times 45) \times 6 + 789. \\
1618 &= 1234 + 5 \times (67 + 8) + 9. \\
1619 &= 1 \times 2 + 3 \times 4 \times (56 + 78) + 9. \\
1620 &= 12 \times (3^4 + 5 \times 6 + 7 + 8 + 9). \\
1621 &= 12 \times 3 + 4 \times 56 \times 7 + 8 + 9. \\
1622 &= 1 \times 2 + 3 \times 4 \times (56 + 7 + 8 + 9). \\
1623 &= 1 \times 23 + 4^5 + 6 \times (7 + 89). \\
1624 &= 123 + 4^5 + 6 \times 78 + 9. \\
1625 &= 12 \times 3^4 + 5 \times 6 + 7 \times 89. \\
1626 &= 1 \times 2 \times 345 + (6 + 7) \times 8 \times 9. \\
1627 &= 1 + 2 \times 345 + (6 + 7) \times 8 \times 9. \\
1628 &= 12 \times 3^4 + 567 + 89. \\
1629 &= (1 + 23 + 4) \times 5 \times 6 + 789. \\
1630 &= 1^2 + 3 \times (456 + 78 + 9). \\
1631 &= 1 + 23 \times (4 + 56 + 7) + 89. \\
1632 &= 1 + 2 + 3 \times (456 + 78 + 9). \\
1633 &= (1 + 23 + 4) \times 56 + 7 \times 8 + 9. \\
1634 &= (1 + 2 \times 3 + 4 \times 56) \times 7 + 8 + 9. \\
1635 &= 1 \times 23 \times 4 \times (5 + 6) + 7 \times 89. \\
1636 &= 123 \times 4 + 5 + 67 \times (8 + 9). \\
1637 &= 1 + 2 \times (3 + 4 \times 5 + 6 + 789). \\
1638 &= (1 + 2) \times (3 + 456 + 78 + 9). \\
1639 &= 1 + 2 \times (3 + 4) \times (5 \times 6 + 78 + 9). \\
1640 &= 1^{23} \times 4 \times 56 \times 7 + 8 \times 9. \\
1641 &= 1234 + 5 \times 67 + 8 \times 9. \\
1642 &= 12 + (3 + 4 \times 5) \times 67 + 89. \\
1643 &= 1234 + 56 \times 7 + 8 + 9. \\
1644 &= 1^2 + 34 \times 5 \times 6 + 7 \times 89. \\
1645 &= 1 + 2 \times 3 \times 45 \times 6 + 7 + 8 + 9. \\
1646 &= 1 \times 2 \times 3 + 4 \times 56 \times 7 + 8 \times 9. \\
1647 &= 1 \times 234 \times 5 + 6 \times 78 + 9. \\
1648 &= 1 + 234 \times 5 + 6 \times 78 + 9. \\
1649 &= 1 + 2^3 + 4 \times 56 \times 7 + 8 \times 9. \\
1650 &= 12 \times 3 \times 45 + 6 + 7 + 8 + 9. \\
1651 &= 12 \times 3^4 + 56 + 7 \times 89. \\
1652 &= 123 \times (4 + 5) + 67 \times 8 + 9. \\
1653 &= 1^{23} \times 4^5 + 6 + 7 \times 89. \\
1654 &= 1^{23} + 4^5 + 6 + 7 \times 89. \\
1655 &= 12 + 34 \times 5 \times 6 + 7 \times 89. \\
1656 &= 1^2 \times 3 + 4^5 + 6 + 7 \times 89. \\
1657 &= 123 + 4^5 + 6 + 7 \times 8 \times 9. \\
1658 &= 1234 + 5 \times 67 + 89. \\
1659 &= 1 \times 2 \times 3 + 4^5 + 6 + 7 \times 89. \\
1660 &= 1^2 \times 3 + 4 \times 56 \times 7 + 89. \\
1661 &= 1^2 + 3 + 4 \times 56 \times 7 + 89. \\
1662 &= 1 \times 2 + 3 + 4 \times 56 \times 7 + 89. \\
1663 &= 1 + 2 + 3 + 4 \times 56 \times 7 + 89. \\
1664 &= 12 \times 3^4 + 5 + 678 + 9. \\
1665 &= 1 + 23 \times 45 + 6 + 7 \times 89. \\
1666 &= 1 + 2^3 + 4 \times 56 \times 7 + 89. \\
1667 &= 12 \times 3^4 + 5 \times (67 + 8 \times 9). \\
1668 &= 12 + 3 + 4^5 + 6 + 7 \times 89. \\
1669 &= 1 + 2 \times (34 + 5 + 6 + 789). \\
1670 &= 1^2 \times 34 \times (5 + 6 \times 7) + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1601 &= 9 \times 8 + 76 \times 5 \times 4 + 3^2 \times 1. \\
1602 &= 9 \times 8 + 76 \times 5 \times 4 + 3^2 + 1. \\
1603 &= (98 + 7 \times 6) \times 5 + 43 \times 21. \\
1604 &= 98 \times (7 + 6) + 5 + 4 + 321. \\
1605 &= 9 + 8 \times 7 \times 6 + 5 \times 4 \times 3 \times 21. \\
1606 &= (9 + 8 + 7) \times 65 + 43 + 2 + 1. \\
1607 &= (98 + 7) \times (6 + 5 + 4) + 32 \times 1. \\
1608 &= 987 + (65 + 4) \times 3^2 \times 1. \\
1609 &= 987 + (65 + 4) \times 3^2 + 1. \\
1610 &= 98 + 7 \times (65 + 43) \times 2 \times 1. \\
1611 &= (9 \times 8 \times 7 + 6 + 5 \times 4) \times 3 + 21. \\
1612 &= (9 + 8 + 76 \times 5) \times 4 + 3 + 21. \\
1613 &= (9 \times 87 + 6 + 5 + 4 \times 3) \times 2 + 1. \\
1614 &= 9 \times (8 + 7 \times 6 + 5 + 4) \times 3 + 21. \\
1615 &= 98 \times (7 + 6) + 5 \times 4 + 321. \\
1616 &= 9 \times 8 + 76 \times 5 \times 4 + 3 + 21. \\
1617 &= 9 + 87 \times 6 + 543 \times 2 \times 1. \\
1618 &= 9 + 87 \times 6 + 543 \times 2 + 1. \\
1619 &= 98 \times 7 + 6 \times 5 + 43 \times 21. \\
1620 &= 9 + 876 + 5 \times (4 + 3) \times 21. \\
1621 &= 9 \times 8 \times (7 + 6 + 5) + 4 + 321. \\
1622 &= (9 + 8) \times 76 + 5 + 4 + 321. \\
1623 &= 987 + 6 + 5^4 + 3 + 2 \times 1. \\
1624 &= 987 + 6 + 5^4 + 3 + 2 + 1. \\
1625 &= 9 \times 8 + 76 \times 5 \times 4 + 32 + 1. \\
1626 &= 9 + 8 \times 7 + 65 \times 4 \times 3 \times 2 + 1. \\
1627 &= 987 + 6 + 5^4 + 3^2 \times 1. \\
1628 &= 987 + 6 + 5^4 + 3^2 + 1. \\
1629 &= 9 + 8 + (7 + 6 \times 5) \times 43 + 21. \\
1630 &= (9 + 8 + 7 + 6) \times 54 + 3^2 + 1. \\
1631 &= 98 \times 7 + (6 + 5 + 4) \times 3 \times 21. \\
1632 &= 987 + 6 \times 54 + 321. \\
1633 &= 987 + 6 + 5 \times 4 \times 32 \times 1. \\
1634 &= 987 + 6 + 5 \times 4 \times 32 + 1. \\
1635 &= 9 + 87 \times (6 + 5 + 4) + 321. \\
1636 &= 9 + 8 \times 7 \times (6 + 5 \times 4 + 3) + 2 + 1. \\
1637 &= 987 + 65 \times (4 + 3 + 2 + 1). \\
1638 &= 98 \times 7 + 6 + 5^4 + 321. \\
1639 &= 9 \times 8 + 7 + 65 \times 4 \times 3 \times 2 \times 1. \\
1640 &= 9 \times 8 + 7 + 65 \times 4 \times 3 \times 2 + 1. \\
1641 &= (9 + 87 \times 6 + 5 + 4) \times 3 + 21. \\
1642 &= 98 + 76 \times 5 \times 4 + 3 + 21. \\
1643 &= (9 \times 8 + 76) \times 5 + 43 \times 21. \\
1644 &= (9 + 8 + 7 + 6) \times 54 + 3 + 21. \\
1645 &= (9 + 8 + 7) \times 65 + 4^3 + 21. \\
1646 &= 987 + 654 + 3 + 2 \times 1. \\
1647 &= 987 + 654 + 3 + 2 + 1. \\
1648 &= 987 + 654 + 3 \times 2 + 1. \\
1649 &= 98 \times (7 + 6) + 54 + 321. \\
1650 &= 98 + 76 \times 5 \times 4 + 32 \times 1. \\
1651 &= 987 + 654 + 3^2 + 1. \\
1652 &= 98 + 7 \times 6 \times 5 + 4^3 \times 21. \\
1653 &= (9 + 8 + 7 + 6) \times 54 + 32 + 1. \\
1654 &= 98 \times 7 + 65 + 43 \times 21. \\
1655 &= 9 \times 8 + 76 \times 5 \times 4 + 3 \times 21. \\
1656 &= 9 + 87 + 65 \times 4 \times 3 \times 2 \times 1. \\
1657 &= 9 + 87 + 65 \times 4 \times 3 \times 2 + 1. \\
1658 &= 98 + (7 + 6) \times 5 \times 4 \times 3 \times 2 \times 1. \\
1659 &= 98 + (7 + 6) \times 5 \times 4 \times 3 \times 2 + 1. \\
1660 &= 98 \times 7 + 6 \times 54 \times 3 + 2 \times 1. \\
1661 &= 98 \times 7 + 654 + 321. \\
1662 &= (9 + 87) \times 6 + 543 \times 2 \times 1. \\
1663 &= (9 + 87) \times 6 + 543 \times 2 + 1. \\
1664 &= (9 + 8 \times 76 + 5 \times 43) \times 2 \times 1. \\
1665 &= 987 + 654 + 3 + 21. \\
1666 &= 98 + 7 + 65 \times 4 \times 3 \times 2 + 1. \\
1667 &= (9 + 8) \times 76 + 54 + 321. \\
1668 &= 9 \times 8 + 7 \times 6 \times (5 + 4 \times 3 + 21). \\
1669 &= 9 + 8 \times (7 \times 6 + 5) + 4 \times 321. \\
1670 &= 98 \times 7 + 6 \times (54 \times 3 + 2) \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1671 &= (12 + 3 \times 45) \times 6 + 789. \\
1672 &= 12 + 3 + 4 \times 56 \times 7 + 89. \\
1673 &= 1 \times 23 \times 4 \times (5 + 6 + 7) + 8 + 9. \\
1674 &= 1 + 23 \times 4 \times (5 + 6 + 7) + 8 + 9. \\
1675 &= (1 \times 2 + 3 + 4 \times 56) \times 7 + 8 \times 9. \\
1676 &= 1 \times 23 + 4^5 + 6 + 7 \times 89. \\
1677 &= 1 + 23 + 4^5 + 6 + 7 \times 89. \\
1678 &= 1 + 23 \times (45 + 6) + 7 \times 8 \times 9. \\
1679 &= 12 \times 3 \times 45 + 6 \times 7 + 8 + 9. \\
1680 &= 1 \times 23 + 4 \times 56 \times 7 + 89. \\
1681 &= 1 + 23 + 4 \times 56 \times 7 + 89. \\
1682 &= 12 + 34 \times (5 + 6 \times 7) + 8 \times 9. \\
1683 &= (12 \times 3 \times 4 + 5) \times 6 + 789. \\
1684 &= (1 + 2)^3 + 4 \times 56 \times 7 + 89. \\
1685 &= 12 \times 3^4 + 5 + 6 + 78 \times 9. \\
1686 &= 1 + 2 \times 3 \times 45 \times 6 + 7 \times 8 + 9. \\
1687 &= 1 + 2 \times (3 + 45 + 6 + 789). \\
1688 &= 1 \times 2^3 + 4 \times 5 \times (67 + 8 + 9). \\
1689 &= 12 \times 3 + 4^5 + 6 + 7 \times 89. \\
1690 &= 1^{234} + 5 \times 6 \times 7 \times 8 + 9. \\
1691 &= 12 \times 3 \times 45 + 6 + 7 \times 8 + 9. \\
1692 &= 123 + 4^5 + 67 \times 8 + 9. \\
1693 &= 12 \times 3 + 4 \times 56 \times 7 + 89. \\
1694 &= 1^{23} + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1695 &= (12 + 3) \times (4 \times 5 + 6 + 78 + 9). \\
1696 &= 1^2 \times 3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1697 &= 1^2 + 3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1698 &= 1234 + 56 \times 7 + 8 \times 9. \\
1699 &= 1 \times 2 \times 3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1700 &= 1 + 2 \times 3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1701 &= 1 \times 2^3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1702 &= 1 + 2^3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1703 &= 1 \times 2 + 3 \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1704 &= 12 \times 3^4 + 5 \times 6 + 78 \times 9. \\
1705 &= 12 \times 3 \times 45 + 6 + 7 + 8 \times 9. \\
1706 &= 1 \times 2 \times (34 + 5 \times 6 + 789). \\
1707 &= 1 \times 2 \times 3 \times 45 \times 6 + 78 + 9. \\
1708 &= 123 + 4 \times 56 \times 7 + 8 + 9. \\
1709 &= (1 + 23) \times 45 + 6 + 7 \times 89. \\
1710 &= (123 + 45) \times 6 + 78 \times 9. \\
1711 &= 1^{23} \times 4^5 + 678 + 9. \\
1712 &= 1^{23} + 4^5 + 678 + 9. \\
1713 &= 12 \times 3 \times 45 + 6 + 78 + 9. \\
1714 &= 1 + (2^3 + 4 \times 56) \times 7 + 89. \\
1715 &= 1234 + 56 \times 7 + 89. \\
1716 &= 1234 + 5 + 6 \times 78 + 9. \\
1717 &= 1 + 2 + 3 + 4^5 + 678 + 9. \\
1718 &= 1 + 2 \times 3 + 4^5 + 678 + 9. \\
1719 &= 1 \times 2^3 + 4^5 + 678 + 9. \\
1720 &= 1 + 2^3 + 4^5 + 678 + 9. \\
1721 &= 1 \times 2^3 \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1722 &= 12 \times 3 \times 45 + 6 + 7 + 89. \\
1723 &= 1 + 23 \times 45 + 678 + 9. \\
1724 &= 1^2 + 34 + 5 \times 6 \times 7 \times 8 + 9. \\
1725 &= 1 \times 2 + 34 + 5 \times 6 \times 7 \times 8 + 9. \\
1726 &= 12 + 3 + 4^5 + 678 + 9. \\
1727 &= 12 \times (3^4 + 5 + 6) + 7 \times 89. \\
1728 &= 12 + 3 \times 4 \times (56 + 78 + 9). \\
1729 &= 12 \times 3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1730 &= 1 + 2 + (34 + 5) \times 6 \times 7 + 89. \\
1731 &= 12 \times (3^4 + 56) + 78 + 9. \\
1732 &= 1^{23} \times 4^5 + 6 + 78 \times 9. \\
1733 &= 1^{23} + 4^5 + 6 + 78 \times 9. \\
1734 &= 1 \times 23 + 4^5 + 678 + 9. \\
1735 &= 1 + 23 + 4^5 + 678 + 9. \\
1736 &= 1^2 + 3 + 4^5 + 6 + 78 \times 9. \\
1737 &= 1 \times 2 + 3 + 4^5 + 6 + 78 \times 9. \\
1738 &= 1 \times 2 \times 3 + 4^5 + 6 + 78 \times 9. \\
1739 &= 1 + 2 \times 3 + 4^5 + 6 + 78 \times 9. \\
1740 &= 1 \times 2^3 + 4^5 + 6 + 78 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1671 &= 987 + 6 \times (54 + 3) \times 2 \times 1. \\
1672 &= 987 + 6 \times (54 + 3) \times 2 + 1. \\
1673 &= 987 + 654 + 32 \times 1. \\
1674 &= 987 + 654 + 32 + 1. \\
1675 &= (9 \times 87 + 6 + 5 + 43) \times 2 + 1. \\
1676 &= 98 \times 7 + 6 \times (54 \times 3 + 2 + 1). \\
1677 &= 987 + (65 + 4) \times (3^2 + 1). \\
1678 &= (9 \times (8 + 7) + (6 + 5) \times 4^3) \times 2 \times 1. \\
1679 &= 98 \times 7 + 6 \times 54 \times 3 + 21. \\
1680 &= (9 + 8) \times 7 + 65 \times 4 \times 3 \times 2 + 1. \\
1681 &= 9 + 8 + 76 \times 5 + 4 \times 321. \\
1682 &= 9 + 8 \times 7 + (65 + 4 \times 3) \times 21. \\
1683 &= (9 + 8 + 7 + 6) \times 54 + 3 \times 21. \\
1684 &= 9 \times 8 + (7 + 6 \times 5) \times 43 + 21. \\
1685 &= 9 + 8 + 765 + 43 \times 21. \\
1686 &= (9 + 8) \times (76 + 5 \times 4 + 3) + 2 + 1. \\
1687 &= (9 \times 8 + 7 \times 6 + (5 + 4)^3) \times 2 + 1. \\
1688 &= (9 + 8 + 7) \times 65 + 4 \times 32 \times 1. \\
1689 &= (9 + 8 + 7) \times 65 + 4 \times 32 + 1. \\
1690 &= 9 + 8 \times 7 + 65 \times (4 \times 3 \times 2 + 1). \\
1691 &= 98 + (7 + 6 \times 5) \times 43 + 2 \times 1. \\
1692 &= (98 + 7 \times 65 + 4) \times 3 + 21. \\
1693 &= 9 \times 87 + 65 \times (4 + 3) \times 2 \times 1. \\
1694 &= 9 + 8 \times 7 \times 6 + 5 + 4^3 \times 21. \\
1695 &= 9 \times (8 + 7) + 65 \times 4 \times 3 \times 2 \times 1. \\
1696 &= 9 + (8 + 76) \times 5 \times 4 + 3 \times 2 + 1. \\
1697 &= 9 \times 87 + 6 + 5 + 43 \times 21. \\
1698 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 3 + 2 \times 1. \\
1699 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 3 + 2 + 1. \\
1700 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
1701 &= 98 + (7 + 65 \times 4) \times 3 \times 2 + 1. \\
1702 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 3^2 \times 1. \\
1703 &= 9 + 8 \times 76 + 543 \times 2 \times 1. \\
1704 &= 987 + 654 + 3 \times 21. \\
1705 &= 98 \times (7 + 6) + 5 \times 43 \times 2 + 1. \\
1706 &= (9 \times 8 + 7 + 6) \times 5 \times 4 + 3 + 2 + 1. \\
1707 &= 987 + 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
1708 &= 987 + 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
1709 &= (9 \times 8 + 7 + 6) \times 5 + 4 \times 321. \\
1710 &= (9 \times 8 + 7 + 6) \times 5 \times 4 + 3^2 + 1. \\
1711 &= (9 \times 87 + 65 + 4 + 3) \times 2 + 1. \\
1712 &= 98 \times (7 + 6) + 5 + 432 + 1. \\
1713 &= 9 + (8 + 76) \times 5 + 4 \times 321. \\
1714 &= 9 + 8 \times 7 \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
1715 &= 98 + 7 \times (6 + 5) \times (4 + 3) \times (2 + 1). \\
1716 &= 9 \times 87 + 6 \times 5 + 43 \times 21. \\
1717 &= (98 + 7) \times 6 + 543 \times 2 + 1. \\
1718 &= 9 \times (8 + 7) \times 6 + 5 + 43 \times 21. \\
1719 &= (9 + 8 + 7) \times (65 + 4) + 3 \times 21. \\
1720 &= (9 \times 87 + 65 + 4 \times 3) \times 2 \times 1. \\
1721 &= 9 + (8 + 76) \times 5 \times 4 + 32 \times 1. \\
1722 &= 9 + 8 \times 7 \times 6 \times 5 + 4 \times 3 + 21. \\
1723 &= (9 + 8) \times 76 + 5 \times 43 \times 2 + 1. \\
1724 &= (9 \times 8 + 7 + 6) \times 5 \times 4 + 3 + 21. \\
1725 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 32 \times 1. \\
1726 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 32 + 1. \\
1727 &= 9 + 8 \times (7 \times 6 \times 5 + 4) + 3 + 2 + 1. \\
1728 &= 987 + 6 + 5 \times (4 + 3) \times 21. \\
1729 &= 9 \times 87 + (6 + 5) \times 43 \times 2 \times 1. \\
1730 &= (9 + 8) \times 76 + 5 + 432 + 1. \\
1731 &= 98 + (7 \times 6 + 5 + 4) \times 32 + 1. \\
1732 &= (9 \times 8 + 7 + 6) \times 5 \times 4 + 32 \times 1. \\
1733 &= (9 \times 8 + 7 + 6) \times 5 \times 4 + 32 + 1. \\
1734 &= 9 + 8 \times 7 \times 6 \times 5 + 43 + 2 \times 1. \\
1735 &= 9 + 8 \times 7 \times 6 \times 5 + 43 + 2 + 1. \\
1736 &= 9 \times 8 + 76 \times 5 + 4 \times 321. \\
1737 &= 9 \times (8 + 7) \times (6 + 5) + 4 \times 3 \times 21. \\
1738 &= (9 + 8 \times 7 \times 6) \times 5 + 4 + 3^2 \times 1. \\
1739 &= 9 + (87 \times 6 + 54) \times 3 + 2 \times 1. \\
1740 &= 9 \times 8 + 765 + 43 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1741 &= (1 + 2) \times 3 + 4^5 + 6 + 78 \times 9. \\
1742 &= 12 + 3 \times (4 + 567) + 8 + 9. \\
1743 &= 1 \times 23 \times 45 + 6 + 78 \times 9. \\
1744 &= 1 + 23 \times 45 + 6 + 78 \times 9. \\
1745 &= 12 \times (3^4 + 56 + 7) + 8 + 9. \\
1746 &= (123 + 4 + 5 + 6 + 7 \times 8) \times 9. \\
1747 &= 12 + 3 + 4^5 + 6 + 78 \times 9. \\
1748 &= 1 + (2 + 3 + 4 \times 5) \times 67 + 8 \times 9. \\
1749 &= 1234 + 5 + 6 + 7 \times 8 \times 9. \\
1750 &= 1 + 2^3 \times 4 \times 5 \times 6 + 789. \\
1751 &= 12 \times 3 \times 45 + 6 \times 7 + 89. \\
1752 &= 12 \times (3 + 4 \times 5) \times 6 + 7 + 89. \\
1753 &= 12 + 3 + 4^5 + 6 \times 7 \times (8 + 9). \\
1754 &= (1 + 2) \times (3 \times 4 + 567) + 8 + 9. \\
1755 &= 1 \times 23 + 4^5 + 6 + 78 \times 9. \\
1756 &= 1 + 23 + 4^5 + 6 + 78 \times 9. \\
1757 &= 1 \times 2 \times 34 + 5 \times 6 \times 7 \times 8 + 9. \\
1758 &= 1 + 2 \times 34 + 5 \times 6 \times 7 \times 8 + 9. \\
1759 &= 12 \times 3 \times 45 + 67 + 8 \times 9. \\
1760 &= (1 + 2)^3 \times 45 + 67 \times 8 + 9. \\
1761 &= (1 + 2 + 3)^4 + 5 \times (6 + 78 + 9). \\
1762 &= (12 + 3 + 4 \times 56) \times 7 + 89. \\
1763 &= 123 + 4 \times 56 \times 7 + 8 \times 9. \\
1764 &= 12 \times 3 \times 45 + 6 \times (7 + 8 + 9). \\
1765 &= 1 + (2 + 3 + 4 \times 5) \times 67 + 89. \\
1766 &= (12 + 3 + 4) \times 56 + 78 \times 9. \\
1767 &= 12^3 + 4 + 5 + 6 + 7 + 8 + 9. \\
1768 &= 1234 + 5 \times 6 + 7 \times 8 \times 9. \\
1769 &= (1^2 + 3 + 4) \times 5 \times 6 \times 7 + 89. \\
1770 &= 1^2 \times 3^4 + 5 \times 6 \times 7 \times 8 + 9. \\
1771 &= 1^2 + 3^4 + 5 \times 6 \times 7 \times 8 + 9. \\
1772 &= 12 \times 3^4 + 5 + 6 + 789. \\
1773 &= 1 + 2 + 3^4 + 5 \times 6 \times 7 \times 8 + 9. \\
1774 &= 1 \times 2 + 3 \times 45 \times (6 + 7) + 8 + 9. \\
1775 &= 1 + 2 + 3 \times 45 \times (6 + 7) + 8 + 9. \\
1776 &= 12 \times 3 \times 45 + 67 + 89. \\
1777 &= (1 + 2 + 3)^4 + 56 \times 7 + 89. \\
1778 &= 12^3 + 4 \times 5 + 6 + 7 + 8 + 9. \\
1779 &= 12 \times (3 \times 45 + 6) + 78 + 9. \\
1780 &= 123 + 4 \times 56 \times 7 + 89. \\
1781 &= 1 \times 23 \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1782 &= 1 + 23 \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1783 &= 1 + (2 + 34) \times 5 \times 6 + 78 \times 9. \\
1784 &= 1234 + 5 + 67 \times 8 + 9. \\
1785 &= (1 + 23) \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1786 &= 12^3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
1787 &= 12 \times 3^4 + 5 + 6 \times (7 + 8) \times 9. \\
1788 &= 12 \times (3 \times 45 + 6) + 7 + 89. \\
1789 &= (1 + 2) \times 3 + 4^5 + (6 + 78) \times 9. \\
1790 &= (1^2 + 3)^4 \times 5 + 6 + 7 \times 8 \times 9. \\
1791 &= 12 \times 3^4 + 5 \times 6 + 789. \\
1792 &= 1 + (2 \times 3^4 + 5) \times 6 + 789. \\
1793 &= 12 \times (3 \times 45 + 6 + 7) + 8 + 9. \\
1794 &= 1234 + 56 + 7 \times 8 \times 9. \\
1795 &= 1 + 2 \times (3 \times 45 \times 6 + 78 + 9). \\
1796 &= 12^3 + 4 + 5 + 6 \times 7 + 8 + 9. \\
1797 &= 1234 + 5 + (6 + 7 \times 8) \times 9. \\
1798 &= (1 \times 2 + 3 \times 45) \times (6 + 7) + 8 + 9. \\
1799 &= 1 \times 234 \times 5 + 6 + 7 \times 89. \\
1800 &= 1 + 234 \times 5 + 6 + 7 \times 89. \\
1801 &= 1 \times 23 \times 4 \times (5 + 6) + 789. \\
1802 &= 1^2 \times 3 \times (4 + 567) + 89. \\
1803 &= 12^3 + 45 + 6 + 7 + 8 + 9. \\
1804 &= (1 + 234) \times 5 + 6 + 7 \times 89. \\
1805 &= 1 + 2 + 3 \times (4 + 567) + 89. \\
1806 &= 1 + 2 + (3 \times 4 + 5 + 6) \times 78 + 9. \\
1807 &= 12^3 + 4 \times 5 + 6 \times 7 + 8 + 9. \\
1808 &= 12^3 + 4 + 5 + 6 + 7 \times 8 + 9. \\
1809 &= 1^2 \times 34 \times 5 \times 6 + 789. \\
1810 &= 1^2 + 34 \times 5 \times 6 + 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1741 &= 9 + 8 + 76 \times 5 + 4^3 \times 21. \\
1742 &= (98 + 7 \times 6 + 5) \times 4 \times 3 + 2 \times 1. \\
1743 &= 9 + (8 + 7) \times 6 \times 5 + 4 \times 321. \\
1744 &= 9 + (87 + 65 \times 4) \times (3 + 2) \times 1. \\
1745 &= 9 + 8 + (7 + 65) \times 4 \times 3 \times 2 \times 1. \\
1746 &= 9 + 8 + (7 + 65) \times 4 \times 3 \times 2 + 1. \\
1747 &= (98 + 7 \times 6 + 54) \times 3^2 + 1. \\
1748 &= 9 + 8 \times (7 \times 6 \times 5 + 4 + 3) + 2 + 1. \\
1749 &= (9 + 8 + 76) \times 5 + 4 \times 321. \\
1750 &= (98 + 765 + 4 \times 3) \times 2 \times 1. \\
1751 &= 9 \times 87 + 65 + 43 \times 21. \\
1752 &= 9 + (8 + 76) \times 5 \times 4 + 3 \times 21. \\
1753 &= 9 + 8 \times 7 \times 6 \times 5 + 43 + 21. \\
1754 &= 9 + 8 \times (7 \times 6 \times 5 + 4) + 32 + 1. \\
1755 &= 9 + 8 \times 7 \times 6 \times 5 + 4^3 + 2 \times 1. \\
1756 &= 9 + 8 + 7 \times 65 + 4 \times 321. \\
1757 &= 9 \times 87 + 6 \times 54 \times 3 + 2 \times 1. \\
1758 &= 9 \times 87 + 654 + 321. \\
1759 &= 9 + 8 + 7 + 6 + 54 \times 32 + 1. \\
1760 &= (9 \times 8 + 765 + 43) \times 2 \times 1. \\
1761 &= 98 \times (7 + 6) + 54 \times 3^2 + 1. \\
1762 &= 98 + 76 \times 5 + 4 \times 321. \\
1763 &= (9 \times 8 + 7) \times 6 + 5 + 4 \times 321. \\
1764 &= 987 + (6 \times 5 + 4 + 3) \times 21. \\
1765 &= (9 + 8 + 7 + 6 + 5 + 4 + 3)^2 + 1. \\
1766 &= 98 + 765 + 43 \times 21. \\
1767 &= 98 \times 7 + 6 \times 5 \times 4 \times 3^2 + 1. \\
1768 &= 9 \times 87 + 6 \times (54 \times 3 + 2) + 1. \\
1769 &= 987 + 65 \times 4 \times 3 + 2 \times 1. \\
1770 &= 987 + 65 \times 4 \times 3 + 2 + 1. \\
1771 &= (9 + 8 \times 7 \times 6) \times 5 + 43 + 2 + 1. \\
1772 &= (9 \times 8 + 7) \times (6 + 5) + 43 \times 21. \\
1773 &= (98 + 76) \times 5 + 43 \times 21. \\
1774 &= 9 + 8 \times 7 \times 6 \times 5 + 4^3 + 21. \\
1775 &= 9 + 8 \times 7 \times 6 \times 5 + 43 \times 2 \times 1. \\
1776 &= 9 \times 87 + 6 \times 54 \times 3 + 21. \\
1777 &= 9 \times 8 + 76 + 543 \times (2 + 1). \\
1778 &= 98 \times 7 + 6 + 543 \times 2 \times 1. \\
1779 &= 98 \times 7 + 6 + 543 \times 2 + 1. \\
1780 &= (9 + 8 + 7 + 65) \times 4 \times (3 + 2) \times 1. \\
1781 &= 9 + 8 + 7 \times 6 \times (5 + 4 + 32 + 1). \\
1782 &= (9 \times 87 + 65 + 43) \times 2 \times 1. \\
1783 &= (9 \times 87 + 65 + 43) \times 2 + 1. \\
1784 &= 9 + 8 \times (7 \times 6 \times 5 + 4) + 3 \times 21. \\
1785 &= 98 \times 7 + (6 + 543) \times 2 + 1. \\
1786 &= 9 + 8 + 76 \times (5 \times 4 + 3) + 21. \\
1787 &= 9 + 8 + 7 \times 6 + 54 \times 32 \times 1. \\
1788 &= 987 + 65 \times 4 \times 3 + 21. \\
1789 &= 98 \times (7 + 6 + 5) + 4 \times 3 \times 2 + 1. \\
1790 &= 98 + (7 \times 6 + 5) \times 4 \times 3^2 \times 1. \\
1791 &= 9 + 87 \times 6 + 5 \times 4 \times 3 \times 21. \\
1792 &= 98 + 7 \times (6 + 5 \times 43 + 21). \\
1793 &= 9 + 876 + 5 + 43 \times 21. \\
1794 &= 9 + 8 \times 7 + 6 \times (5 + 4) \times 32 + 1. \\
1795 &= (9 + 876 + 5 + 4 + 3) \times 2 + 1. \\
1796 &= 9 \times 8 \times 7 + 6 \times 5 \times 43 + 2 \times 1. \\
1797 &= 9 \times 8 \times 7 + 6 \times 5 \times 43 + 2 + 1. \\
1798 &= 9 + 8 \times (7 + 6) \times (5 + 4 \times 3) + 21. \\
1799 &= 9 + 8 \times 7 + 6 + 54 \times 32 \times 1. \\
1800 &= 9 + 8 \times 7 + 6 + 54 \times 32 + 1. \\
1801 &= (9 + 8) \times 7 \times 6 + 543 \times 2 + 1. \\
1802 &= (9 + 8 + 7 + 6) \times 5 \times 4 \times 3 + 2 \times 1. \\
1803 &= 9 \times 8 \times (7 + 6 + 5 + 4 + 3) + 2 + 1. \\
1804 &= 9 \times 8 \times 7 + 65 \times 4 \times (3 + 2) \times 1. \\
1805 &= (9 + 876 + 5 + 4 \times 3) \times 2 + 1. \\
1806 &= 9 + 8 \times (7 \times 6 \times 5 + 4 \times 3) + 21. \\
1807 &= 9 \times 8 \times 7 + 6 \times (5 \times 43 + 2) + 1. \\
1808 &= 9 \times 8 + 7 + 6 \times (5 + 4) \times 32 + 1. \\
1809 &= 98 \times (7 + 6 + 5) + 43 + 2 \times 1. \\
1810 &= 98 \times (7 + 6 + 5) + 43 + 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1811 &= 1 \times 2 + 34 \times 5 \times 6 + 789. \\
1812 &= 12^3 + 4 + 56 + 7 + 8 + 9. \\
1813 &= 1 + 2 \times (3 \times 45 \times 6 + 7 + 89). \\
1814 &= 12 + 3 \times (4 + 567) + 89. \\
1815 &= 1234 + 5 + 6 \times (7 + 89). \\
1816 &= 123 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1817 &= 12 \times 3^4 + 56 + 789. \\
1818 &= 1234 + 567 + 8 + 9. \\
1819 &= 12^3 + 4 \times 5 + 6 + 7 \times 8 + 9. \\
1820 &= 1^{23} + 4^5 + 6 + 789. \\
1821 &= 12 + 34 \times 5 \times 6 + 789. \\
1822 &= 12^3 + 4 + 5 + 6 + 7 + 8 \times 9. \\
1823 &= 1^2 + 3 + 4^5 + 6 + 789. \\
1824 &= 1 \times 2 + 3 + 4^5 + 6 + 789. \\
1825 &= 1 \times 2 \times 3 + 4^5 + 6 + 789. \\
1826 &= 1 + 2 \times 3 + 4^5 + 6 + 789. \\
1827 &= 12^3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
1828 &= 1 + 2^3 + 4^5 + 6 + 789. \\
1829 &= 1 \times 2 \times 345 + 67 \times (8 + 9). \\
1830 &= 12^3 + 4 + 5 + 6 + 78 + 9. \\
1831 &= 1 + 23 \times 45 + 6 + 789. \\
1832 &= 12^3 + 45 + 6 \times 7 + 8 + 9. \\
1833 &= 12^3 + 4 \times 5 + 6 + 7 + 8 \times 9. \\
1834 &= 123 + 4^5 + 678 + 9. \\
1835 &= 1^{23} + 4^5 + 6 \times (7 + 8) \times 9. \\
1836 &= 123 \times 4 + 56 \times (7 + 8 + 9). \\
1837 &= 12^3 + 4 \times (5 + 6) + 7 \times 8 + 9. \\
1838 &= 12 + 3 \times (4 + 5) \times 67 + 8 + 9. \\
1839 &= 12^3 + 4 + 5 + 6 + 7 + 89. \\
1840 &= 1 \times 23 \times (4 + 5 + 6 + 7 \times 8 + 9). \\
1841 &= 12^3 + 4 + 5 \times 6 + 7 + 8 \times 9. \\
1842 &= 1 \times 23 + 4^5 + 6 + 789. \\
1843 &= 1 + 23 + 4^5 + 6 + 789. \\
1844 &= 12^3 + 45 + 6 + 7 \times 8 + 9. \\
1845 &= 12 + 3 \times (4 + 5 + 67) \times 8 + 9. \\
1846 &= 1 + 234 \times 5 + (67 + 8) \times 9. \\
1847 &= 1 + 2 + 3 \times 45 \times (6 + 7) + 89. \\
1848 &= 1 \times 2 \times 3 \times 4 \times 56 + 7 \times 8 \times 9. \\
1849 &= 12^3 + 4 + 5 \times 6 + 7 + 8 + 9. \\
1850 &= 12^3 + 4 \times 5 + 6 + 7 + 89. \\
1851 &= 12^3 + 4 + 5 + 6 \times 7 + 8 \times 9. \\
1852 &= 1 + 2 \times 3^4 + 5 \times 6 \times 7 \times 8 + 9. \\
1853 &= 12^3 + 4 + 56 + 7 \times 8 + 9. \\
1854 &= 1 \times (2 + 3) \times 45 \times 6 + 7 \times 8 \times 9. \\
1855 &= 12 \times 3 + 4^5 + 6 + 789. \\
1856 &= 12 + 3 \times 45 \times (6 + 7) + 89. \\
1857 &= 12^3 + 45 + 67 + 8 + 9. \\
1858 &= 12^3 + 45 + 6 + 7 + 8 \times 9. \\
1859 &= 1234 + (5 + 6) \times 7 \times 8 + 9. \\
1860 &= 12 \times (3 \times 4 + 56 + 78 + 9). \\
1861 &= 1 + 2 \times (3 \times 45 + 6 + 789). \\
1862 &= (1 + 234) \times 5 + 678 + 9. \\
1863 &= 1 + 2 \times 3 + 4 \times (56 \times 7 + 8 \times 9). \\
1864 &= 1 \times 2^3 + 4 \times (56 \times 7 + 8 \times 9). \\
1865 &= 1 \times 23 \times (4 + 5) \times 6 + 7 \times 89. \\
1866 &= 12^3 + 45 + 6 + 78 + 9. \\
1867 &= 12^3 + 4 + 56 + 7 + 8 \times 9. \\
1868 &= 1234 + 5 + 6 + 7 \times 89. \\
1869 &= 12 \times (34 + 56) + 789. \\
1870 &= 1 + (2 + 34) \times 5 \times 6 + 789. \\
1871 &= 1 \times 2^3 \times 4 \times 56 + 7 + 8 \times 9. \\
1872 &= 1^2 \times 3 \times 456 + 7 \times 8 \times 9. \\
1873 &= 1^2 + 3 \times 456 + 7 \times 8 \times 9. \\
1874 &= 1 \times 2 + 3 \times 456 + 7 \times 8 \times 9. \\
1875 &= 12^3 + 45 + 6 + 7 + 89. \\
1876 &= 12^3 + 4 + 5 + 67 + 8 \times 9. \\
1877 &= 12 \times 3 \times 4 \times 5 + (6 + 7) \times 89. \\
1878 &= 1 \times 234 \times 5 + 6 + 78 \times 9. \\
1879 &= 1 + 234 \times 5 + 6 + 78 \times 9. \\
1880 &= 1 + 2^3 \times 4 \times 56 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1811 &= 9 \times 8 + 7 \times 65 + 4 \times 321. \\
1812 &= (98 + 765 + 43) \times 2 \times 1. \\
1813 &= 9 \times 8 + 7 + 6 + 54 \times 32 \times 1. \\
1814 &= 9 \times 8 + 7 + 6 + 54 \times 32 + 1. \\
1815 &= 9 \times 8 \times 7 + 6 \times 5 \times 43 + 21. \\
1816 &= 9 + 8 + 7 \times 65 + 4^3 \times 21. \\
1817 &= 9 + 8 \times 7 \times 6 \times 5 + 4 \times 32 \times 1. \\
1818 &= 9 \times 8 \times 7 + 6 \times 5 + 4 \times 321. \\
1819 &= 98 \times (7 + 6) + 543 + 2 \times 1. \\
1820 &= 9 + 87 \times 6 + 5 + 4 \times 321. \\
1821 &= 9 + 8 + 76 + 54 \times 32 \times 1. \\
1822 &= 98 + 76 \times 5 + 4^3 \times 21. \\
1823 &= 9 \times 8 + 76 \times (5 \times 4 + 3) + 2 + 1. \\
1824 &= 9 + 87 + 6 \times (5 + 4) \times 32 \times 1. \\
1825 &= 9 + 87 + 6 \times (5 + 4) \times 32 + 1. \\
1826 &= 98 + (7 + 65) \times 4 \times 3 \times 2 \times 1. \\
1827 &= 9 + (8 + 7) \times 6 + 54 \times 32 \times 1. \\
1828 &= 9 + (8 + 7) \times 6 + 54 \times 32 + 1. \\
1829 &= 9 \times 8 + 7 \times 6 + 5 \times (4 + 3)^{(2+1)}. \\
1830 &= 9 + 87 + 6 + 54 \times 32 \times 1. \\
1831 &= 9 + 876 + 5^4 + 321. \\
1832 &= (9 \times 8 + 76 \times 5) \times 4 + 3 + 21. \\
1833 &= 98 + 7 + 6 \times (5 + 4) \times 32 \times 1. \\
1834 &= 98 + 7 + 6 \times (5 + 4) \times 32 + 1. \\
1835 &= 9 + (87 + 65) \times 4 \times 3 + 2 \times 1. \\
1836 &= (9 + 87) \times 6 + 5 \times 4 \times 3 \times 21. \\
1837 &= 98 + 7 \times 65 + 4 \times 321. \\
1838 &= 98 \times (7 + 6) + 543 + 21. \\
1839 &= 98 + 7 + 6 + 54 \times 32 \times 1. \\
1840 &= 98 + 7 + 6 + 54 \times 32 + 1. \\
1841 &= 9 + 8 \times (7 + 6) + 54 \times 32 \times 1. \\
1842 &= 9 \times 8 + 7 \times 6 + 54 \times 32 \times 1. \\
1843 &= 9 \times 8 + 7 \times 6 + 54 \times 32 + 1. \\
1844 &= 9 + 8 + 7 \times 65 \times 4 + 3 \times 2 + 1. \\
1845 &= 9 + 876 + 5 \times 4^3 \times (2 + 1). \\
1846 &= 9 + 8 + 7 \times 65 \times 4 + 3^2 \times 1. \\
1847 &= 9 + 8 + 7 \times 65 \times 4 + 3^2 + 1. \\
1848 &= 9 \times (8 + 7 + 6) \times 5 + 43 \times 21. \\
1849 &= 9 + 8 \times (7 + 65 + 43) \times 2 \times 1. \\
1850 &= 98 \times (7 + 6 + 5) + 43 \times 2 \times 1. \\
1851 &= 98 \times (7 + 6 + 5) + 43 \times 2 + 1. \\
1852 &= 987 + 6 \times (5 + 4 + 3)^2 + 1. \\
1853 &= 9 \times 8 \times 7 + 65 + 4 \times 321. \\
1854 &= 9 + (87 + 65) \times 4 \times 3 + 21. \\
1855 &= (98 + 765 + 4^3) \times 2 + 1. \\
1856 &= (9 + 8) \times 76 + 543 + 21. \\
1857 &= (9 \times 8 + 76 + 5) \times 4 \times 3 + 21. \\
1858 &= 9 + 8 + 76 \times 5 \times 4 + 321. \\
1859 &= 9 \times 8 \times 7 + 6 + 5 + 4^3 \times 21. \\
1860 &= 9 + 8 + 7 \times (65 \times 4 + 3) + 2 \times 1. \\
1861 &= 9 + 8 + 7 \times 65 \times 4 + 3 + 21. \\
1862 &= 9 + (8 \times 76 + 5 + 4) \times 3 + 2 \times 1. \\
1863 &= 9 \times 87 + 6 \times 5 \times 4 \times 3^2 \times 1. \\
1864 &= 9 \times 87 + 6 \times 5 \times 4 \times 3^2 + 1. \\
1865 &= (9 + 87) \times 6 + 5 + 4 \times 321. \\
1866 &= (9 + 876 + 5 + 43) \times 2 \times 1. \\
1867 &= 98 + 76 \times (5 \times 4 + 3) + 21. \\
1868 &= 98 + 7 \times 6 + 54 \times 32 \times 1. \\
1869 &= 98 + 7 \times 6 + 54 \times 32 + 1. \\
1870 &= 9 + 8 + 7 \times 65 \times 4 + 32 + 1. \\
1871 &= 9 \times 8 + 7 \times 65 + 4^3 \times 21. \\
1872 &= (9 + 8 + 7) \times 6 + 54 \times 32 \times 1. \\
1873 &= (9 + 8 + 7) \times 6 + 54 \times 32 + 1. \\
1874 &= 9 + (87 + 6) \times 5 \times 4 + 3 + 2 \times 1. \\
1875 &= 9 \times 87 + 6 + 543 \times 2 \times 1. \\
1876 &= 9 \times 8 + 76 + 54 \times 32 \times 1. \\
1877 &= 9 + 8 \times 76 + 5 \times 4 \times 3 \times 21. \\
1878 &= 9 \times 8 \times 7 + 6 \times 5 + 4^3 \times 21. \\
1879 &= 9 + 8 + 7 \times (65 \times 4 + 3) + 21. \\
1880 &= 9 + 87 \times 6 + 5 + 4^3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1881 &= (12 + 34 \times 5) \times 6 + 789. \\
1882 &= 12^3 + 4 + 5 \times (6 + 7 + 8 + 9). \\
1883 &= 1 \times 23 + 4 \times 5 \times (6 + 78 + 9). \\
1884 &= 12 + 3 \times 456 + 7 \times 8 \times 9. \\
1885 &= 1 + 234 \times 5 + 6 \times 7 \times (8 + 9). \\
1886 &= 12^3 + 4 + 5 \times (6 + 7) + 89. \\
1887 &= 1234 + 5 \times 6 + 7 \times 89. \\
1888 &= 1 \times 2^3 \times 4 \times 56 + 7 + 89. \\
1889 &= 1 + 2^3 \times 4 \times 56 + 7 + 89. \\
1890 &= 1234 + 567 + 89. \\
1891 &= 12 + 34 \times (5 + 6 \times 7 + 8) + 9. \\
1892 &= 12 \times 3 + 4 \times (56 \times 7 + 8 \times 9). \\
1893 &= 12^3 + 4 + 5 + 67 + 89. \\
1894 &= 1 + (2^3 + 4 \times 5) \times 67 + 8 + 9. \\
1895 &= 1 \times (23 + 4 \times 5) \times 6 \times 7 + 89. \\
1896 &= (12 + 3) \times 4 \times 5 \times 6 + 7 + 89. \\
1897 &= 12^3 + 4 + 5 \times 6 + (7 + 8) \times 9. \\
1898 &= 12^3 + 45 + 6 + 7 \times (8 + 9). \\
1899 &= (1 + 2 + 34) \times 5 \times 6 + 789. \\
1900 &= 1 \times 2 + 3 \times (4 + 5) \times 67 + 89. \\
1901 &= 1 + 2 + 3 \times (4 + 5) \times 67 + 89. \\
1902 &= 123 \times (4 + 5) + 6 + 789. \\
1903 &= 123 + 4^5 + (6 + 78) \times 9. \\
1904 &= 12^3 + 45 + 6 \times 7 + 89. \\
1905 &= 1^2 \times (34 \times 5 + 67) \times 8 + 9. \\
1906 &= 1 \times 2 + 3 + 4 \times (5 + 6 \times 78) + 9. \\
1907 &= 1^{23} \times 45 \times 6 \times 7 + 8 + 9. \\
1908 &= 1^{23} + 45 \times 6 \times 7 + 8 + 9. \\
1909 &= 1 \times (2 + 3) \times 4 \times 56 + 789. \\
1910 &= 1 + (2 + 3) \times 4 \times 56 + 789. \\
1911 &= 1^2 + 3 + 45 \times 6 \times 7 + 8 + 9. \\
1912 &= 12^3 + 45 + 67 + 8 \times 9. \\
1913 &= 1234 + 56 + 7 \times 89. \\
1914 &= 1 + 2 \times 3 + 45 \times 6 \times 7 + 8 + 9. \\
1915 &= 1 \times 2^3 + 45 \times 6 \times 7 + 8 + 9. \\
1916 &= 1 + 2^3 + 45 \times 6 \times 7 + 8 + 9. \\
1917 &= 12^3 + 45 + 6 \times (7 + 8 + 9). \\
1918 &= 1 \times 2 + 3 + (4 + 5 \times 6) \times 7 \times 8 + 9. \\
1919 &= 1 \times 2 \times 3 + (4 + 5 \times 6) \times 7 \times 8 + 9. \\
1920 &= 1 \times 2 \times 3 \times 4 \times (5 + 6) \times 7 + 8 \times 9. \\
1921 &= 1 + 2 \times 3 \times 4 \times (56 + 7 + 8 + 9). \\
1922 &= 12 + 3 + 45 \times 6 \times 7 + 8 + 9. \\
1923 &= 1 \times 234 + 5 \times 6 \times 7 \times 8 + 9. \\
1924 &= 1 + 234 + 5 \times 6 \times 7 \times 8 + 9. \\
1925 &= 12 \times (3^4 + 5 + 67) + 89. \\
1926 &= 1234 + 5 + 678 + 9. \\
1927 &= 12^3 + 4 \times 5 \times 6 + 7 + 8 \times 9. \\
1928 &= 1^2 \times 34 \times 56 + 7 + 8 + 9. \\
1929 &= 12^3 + 45 + 67 + 89. \\
1930 &= 1 \times 23 + 45 \times 6 \times 7 + 8 + 9. \\
1931 &= 1 + 23 + 45 \times 6 \times 7 + 8 + 9. \\
1932 &= 1 \times 23 \times (4 + 56 + 7 + 8 + 9). \\
1933 &= 1 + 23 \times (4 + 56 + 7 + 8 + 9). \\
1934 &= (1 + 2)^3 + 45 \times 6 \times 7 + 8 + 9. \\
1935 &= 12^3 + 4 \times 5 \times 6 + 78 + 9. \\
1936 &= 1 \times 2^3 + 4 \times (5 + 6 \times 78 + 9). \\
1937 &= (1 \times 234 + 5 \times 6) \times 7 + 89. \\
1938 &= 1 + (234 + 5 \times 6) \times 7 + 89. \\
1939 &= 1 + (234 + 5) \times 6 + 7 \times 8 \times 9. \\
1940 &= 12 + 34 \times 56 + 7 + 8 + 9. \\
1941 &= 12 + 3 \times (4 + 567 + 8 \times 9). \\
1942 &= 123 + 4^5 + 6 + 789. \\
1943 &= 12 \times 3 + 45 \times 6 \times 7 + 8 + 9. \\
1944 &= 12^3 + 4 \times 5 \times 6 + 7 + 89. \\
1945 &= 1 + (2 + 34) \times (5 \times 6 + 7 + 8 + 9). \\
1946 &= (1 \times 2 + 3 + 4 + 5) \times (67 + 8 \times 9). \\
1947 &= 1234 + 5 + 6 + 78 \times 9. \\
1948 &= 1 + 23 + 4 \times (56 \times 7 + 89). \\
1949 &= 1 + 2 \times (345 + 6 + 7 \times 89). \\
1950 &= 1 + (2 \times 3 \times 45 + 6) \times 7 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1881 &= 9 \times 87 + (6 + 543) \times 2 \times 1. \\
1882 &= 9 \times 87 + (6 + 543) \times 2 + 1. \\
1883 &= (98 + 7 \times 6 \times 5 \times 4 + 3) \times 2 + 1. \\
1884 &= 9 + 8 + 7 + 6 + 5 + 43^2 \times 1. \\
1885 &= 9 + 8 + 7 + 6 + 5 + 43^2 + 1. \\
1886 &= 9 + 8 + 7 \times (65 \times 4 + 3 \times 2 + 1). \\
1887 &= 9 + (8 + 7) \times 65 + 43 \times 21. \\
1888 &= 98 + 765 + 4(3 + 2) + 1. \\
1889 &= 98 \times 7 + 6 + (54 + 3) \times 21. \\
1890 &= (98 + 7) \times 6 + 5 \times 4 \times 3 \times 21. \\
1891 &= (9 + 876 + 5 \times 4 \times 3) \times 2 + 1. \\
1892 &= 98 \times (7 + 6 + 5) + 4 \times 32 \times 1. \\
1893 &= (9 + 8 + 76) \times 5 \times 4 + 32 + 1. \\
1894 &= 9 + (8 + 7 \times 65) \times 4 + 32 + 1. \\
1895 &= (9 + 8 + 7 \times 65) \times 4 + 3 \times 2 + 1. \\
1896 &= 9 \times (8 + 7) \times 6 + 543 \times 2 \times 1. \\
1897 &= 98 + 7 \times 65 + 4^3 \times 21. \\
1898 &= 9 \times 8 + 7 \times 65 \times 4 + 3 + 2 + 1. \\
1899 &= 9 \times 8 + 7 \times 65 \times 4 + 3 \times 2 + 1. \\
1900 &= 9 + 8 + 7 \times 65 \times 4 + 3 \times 21. \\
1901 &= 987 + 6 + 5 + 43 \times 21. \\
1902 &= 98 + 76 + 54 \times 32 \times 1. \\
1903 &= 98 + 76 + 54 \times 32 + 1. \\
1904 &= 9 + 8 + 7 + 6 \times 5 + 43^2 + 1. \\
1905 &= 98 \times (7 + 6) + 5^4 + 3 \times 2 \times 1. \\
1906 &= 9 + 8 \times 76 + 5 + 4 \times 321. \\
1907 &= 9 + 8 + 7 + 6 + 5^4 \times 3 + 2 \times 1. \\
1908 &= 9 + 8 + 7 + 6 + 5^4 \times 3 + 2 + 1. \\
1909 &= (9 + 8 + 76 \times 5) \times 4 + 321. \\
1910 &= 9 + (8 \times 7 + 6 \times 54) \times (3 + 2) + 1. \\
1911 &= 9 \times (8 + 7 \times 6 + 5 \times 4) \times 3 + 21. \\
1912 &= 9 \times 8 \times 7 + (6 + 5) \times 4 \times 32 \times 1. \\
1913 &= 9 \times 8 + 76 \times 5 \times 4 + 321. \\
1914 &= 9 + 8 + 7 \times 6 + 5 + 43^2 + 1. \\
1915 &= 98 \times (7 + 6) + 5 \times 4 \times 32 + 1. \\
1916 &= 9 \times 8 + 7 \times 65 \times 4 + 3 + 21. \\
1917 &= 9 \times 87 + (6 + 5 + 43) \times 21. \\
1918 &= (98 + 76 \times 5) \times 4 + 3 + 2 + 1. \\
1919 &= (98 + 7) \times 6 + 5 + 4 \times 321. \\
1920 &= 987 + 6 \times 5 + 43 \times 21. \\
1921 &= (9 + 8 + 7 \times 65) \times 4 + 32 + 1. \\
1922 &= 98 + 7 \times 6 + 54 \times (32 + 1). \\
1923 &= 98 + 7 \times 65 \times 4 + 3 + 2 \times 1. \\
1924 &= 98 + 7 \times 65 \times 4 + 3 + 2 + 1. \\
1925 &= 9 \times 8 + 7 \times 65 \times 4 + 32 + 1. \\
1926 &= 9 + 8 + 7 + 6 + 5^4 \times 3 + 21. \\
1927 &= 98 + 7 \times 65 \times 4 + 3^2 \times 1. \\
1928 &= 98 + 7 \times 65 \times 4 + 3^2 + 1. \\
1929 &= 9 + (8 + 7 + 65) \times 4 \times 3 \times 2 \times 1. \\
1930 &= 9 \times 8 + 76 + 54 \times (32 + 1). \\
1931 &= 98 \times (7 + 6) + 5^4 + 32 \times 1. \\
1932 &= 987 + (6 + 5 + 4) \times 3 \times 21. \\
1933 &= (9 + 8) \times 76 + 5 \times 4 \times 32 + 1. \\
1934 &= 987 + (6 + 5) \times 43 \times 2 + 1. \\
1935 &= (9 + 87 + 65) \times 4 \times 3 + 2 + 1. \\
1936 &= 9 + 8 + 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
1937 &= 9 + 8 + 7 \times 6 + 5^4 \times 3 + 2 + 1. \\
1938 &= 9 + 8 + 7 + 65 + 43^2 \times 1. \\
1939 &= 98 + 76 \times 5 \times 4 + 321. \\
1940 &= 9 \times 8 + 7 + 6 + 5 + 43^2 + 1. \\
1941 &= 9 + 8 \times 7 \times 6 \times 5 + 4 \times 3 \times 21. \\
1942 &= 98 + 7 \times 65 \times 4 + 3 + 21. \\
1943 &= 9 + 8 + 7 \times (6 + 5) + 43^2 \times 1. \\
1944 &= 9 + 8 \times 7 + 6 \times 5 + 43^2 \times 1. \\
1945 &= 9 + 8 \times 7 + 6 \times 5 + 43^2 + 1. \\
1946 &= 9 + 8 + 7 + 6 \times 5 \times 4^3 + 2 \times 1. \\
1947 &= 9 + 8 + 76 + 5 + 43^2 \times 1. \\
1948 &= 9 + 8 + 76 + 5 + 43^2 + 1. \\
1949 &= 9 + 8 \times 7 + 6 + 5^4 \times 3 + 2 + 1. \\
1950 &= 98 + 7 \times 65 \times 4 + 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
1951 &= 1 \times 23 + 4 \times (5 + 6 \times 78 + 9). \\
1952 &= (1 + 2 + 3)^4 + 567 + 89. \\
1953 &= 1234 + 5 + 6 \times 7 \times (8 + 9). \\
1954 &= 1234 + 5 \times 6 \times (7 + 8 + 9). \\
1955 &= (1 + 2 \times 3) \times 45 \times 6 + 7 \times 8 + 9. \\
1956 &= (1 + 2 \times 3 + 45 \times 6) \times 7 + 8 + 9. \\
1957 &= 123 + 4^5 + 6 \times (7 + 8) \times 9. \\
1958 &= 12^3 + 4 + 5 + (6 + 7) \times (8 + 9). \\
1959 &= 12^3 + 4 + 5 \times 6 \times 7 + 8 + 9. \\
1960 &= 12 \times 3 + 4 \times (56 \times 7 + 89). \\
1961 &= 1 + 2 \times 3 + 4 + 5 \times 6 \times (7 \times 8 + 9). \\
1962 &= 1^{23} \times 45 \times 6 \times 7 + 8 \times 9. \\
1963 &= 1^{23} + 45 \times 6 \times 7 + 8 \times 9. \\
1964 &= 12 \times 3 + 4 \times (5 + 6 \times 78 + 9). \\
1965 &= 1 \times 234 \times 5 + 6 + 789. \\
1966 &= 1234 + 5 \times 6 + 78 \times 9. \\
1967 &= 1 \times 2 + 3 + 45 \times 6 \times 7 + 8 \times 9. \\
1968 &= 1 + 2 \times 3 \times 4 \times 56 + 7 \times 89. \\
1969 &= 1 + 2 \times 3 + 45 \times 6 \times 7 + 8 \times 9. \\
1970 &= 1 \times 2^3 + 45 \times 6 \times 7 + 8 \times 9. \\
1971 &= 1 \times 2 + 34 \times 56 + 7 \times 8 + 9. \\
1972 &= 1 + 2 + 34 \times 56 + 7 \times 8 + 9. \\
1973 &= 1 \times (2 + 3) \times 45 \times 6 + 7 \times 89. \\
1974 &= 1 + (2 + 3) \times 45 \times 6 + 7 \times 89. \\
1975 &= (1 + 2 + 3)^4 + 56 + 7 \times 89. \\
1976 &= 12^3 + 4 \times 56 + 7 + 8 + 9. \\
1977 &= 12 + 3 + 45 \times 6 \times 7 + 8 \times 9. \\
1978 &= 1 + 23 + 4 + 5 \times 6 \times (7 \times 8 + 9). \\
1979 &= 1^{23} \times 45 \times 6 \times 7 + 89. \\
1980 &= 1^{23} + 45 \times 6 \times 7 + 89. \\
1981 &= 12 + 34 \times 56 + 7 \times 8 + 9. \\
1982 &= 1^2 \times 3 + 45 \times 6 \times 7 + 89. \\
1983 &= 1^2 + 3 + 45 \times 6 \times 7 + 89. \\
1984 &= 1 \times 2 + 3 + 45 \times 6 \times 7 + 89. \\
1985 &= 1 \times 23 + 45 \times 6 \times 7 + 8 \times 9. \\
1986 &= 1 + 23 + 45 \times 6 \times 7 + 8 \times 9. \\
1987 &= 1 \times 2^3 + 45 \times 6 \times 7 + 89. \\
1988 &= 1 + 2^3 + 45 \times 6 \times 7 + 89. \\
1989 &= (12 \times 3 + 4) \times 5 \times 6 + 789. \\
1990 &= 12 \times 3 + 4 + 5 \times 6 \times (7 \times 8 + 9). \\
1991 &= 1^2 \times 34 \times 56 + 78 + 9. \\
1992 &= 1234 + 56 + 78 \times 9. \\
1993 &= 1 \times 2 + 34 \times 56 + 78 + 9. \\
1994 &= 12 + 3 + 45 \times 6 \times 7 + 89. \\
1995 &= 12 + 34 \times 56 + 7 + 8 \times 9. \\
1996 &= 12 + 34 + 5 \times 6 \times (7 \times 8 + 9). \\
1997 &= 12^3 + 4 \times (56 + 7) + 8 + 9. \\
1998 &= 12 \times 3 + 45 \times 6 \times 7 + 8 \times 9. \\
1999 &= 12^3 + (4 \times 5 + 6) \times 7 + 89. \\
2000 &= 1^2 \times 34 \times 56 + 7 + 89. \\
2001 &= 1^2 + 34 \times 56 + 7 + 89. \\
2002 &= 1 \times 23 + 45 \times 6 \times 7 + 89. \\
2003 &= 12 + 34 \times 56 + 78 + 9. \\
2004 &= 1 + 23 \times (4 + 56) + 7 \times 89. \\
2005 &= 12^3 + 4 \times 5 \times (6 + 7) + 8 + 9. \\
2006 &= (1 + 2)^3 + 45 \times 6 \times 7 + 89. \\
2007 &= 1 \times 2 \times (3^4 + 56) \times 7 + 89. \\
2008 &= 1 + 2 \times (3^4 + 56) \times 7 + 89. \\
2009 &= 12 \times 3 \times (4 + 5) \times 6 + 7 \times 8 + 9. \\
2010 &= 12 \times 3 \times 45 + 6 \times (7 \times 8 + 9). \\
2011 &= (1 + 2 \times 3 + 45 \times 6) \times 7 + 8 \times 9. \\
2012 &= 12 + 34 \times 56 + 7 + 89. \\
2013 &= 12 \times (3 \times 4 + 5) \times 6 + 789. \\
2014 &= 1234 + 5 \times (67 + 89). \\
2015 &= 12 \times 3 + 45 \times 6 \times 7 + 89. \\
2016 &= 12 \times (3 + 4 + 5 + 67 + 89). \\
2017 &= 12^3 + 4 \times 56 + 7 \times 8 + 9. \\
2018 &= 1 \times 2 \times 34 + 5 \times 6 \times (7 \times 8 + 9). \\
2019 &= 1 + 2 \times 34 + 5 \times 6 \times (7 \times 8 + 9). \\
2020 &= (123 + 4) \times (5 + 6) + 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
1951 &= 98 + 7 \times 65 \times 4 + 32 + 1. \\
1952 &= 98 \times 7 + 6 + 5 \times 4 \times 3 \times 21. \\
1953 &= (9 + 87 + 65) \times 4 \times 3 + 21. \\
1954 &= 9 + (8 + 7) \times 6 + 5 + 43^2 + 1. \\
1955 &= 987 + 65 + 43 \times 21. \\
1956 &= 9 + 87 + 6 + 5 + 43^2 \times 1. \\
1957 &= 9 + 87 + 6 + 5 + 43^2 + 1. \\
1958 &= 9 \times 8 + 7 + 6 \times 5 + 43^2 \times 1. \\
1959 &= 9 \times 8 + 7 + 6 \times 5 + 43^2 + 1. \\
1960 &= 98 + 7 \times (65 \times 4 + 3) + 21. \\
1961 &= 987 + 6 \times 54 \times 3 + 2 \times 1. \\
1962 &= 987 + 654 + 321. \\
1963 &= 9 \times 8 + 7 + 6 + 5^4 \times 3 + 2 + 1. \\
1964 &= 9 + (8 + 7 + 6) \times 5 + 43^2 + 1. \\
1965 &= 98 + 7 + 6 + 5 + 43^2 \times 1. \\
1966 &= 98 + 7 + 6 + 5 + 43^2 + 1. \\
1967 &= 9 + 8 \times 7 + 6 + 5^4 \times 3 + 21. \\
1968 &= 9 + 8 + 7 + 6 \times 54 \times 3 \times 2 \times 1. \\
1969 &= 9 + 8 + 7 + 6 \times 54 \times 3 \times 2 + 1. \\
1970 &= 9 + 8 + 76 + 5^4 \times 3 + 2 \times 1. \\
1971 &= 9 + 8 + 76 + 5^4 \times 3 + 2 + 1. \\
1972 &= 9 + 876 + 543 \times 2 + 1. \\
1973 &= 9 \times 8 + 76 \times (5 \times 4 + 3 + 2) + 1. \\
1974 &= (9 + 8) \times 7 \times 6 + 5 \times 4 \times 3 \times 21. \\
1975 &= 9 + 87 + 6 \times 5 + 43^2 \times 1. \\
1976 &= 9 + 87 + 6 \times 5 + 43^2 + 1. \\
1977 &= 987 + 6 \times 5 \times (4 \times 3 + 21). \\
1978 &= 98 \times 7 + 6 \times 5 \times 43^2 \times 1. \\
1979 &= 98 \times 7 + 6 \times 5 \times 43 + 2 + 1. \\
1980 &= 987 + 6 \times 54 \times 3 + 21. \\
1981 &= 98 + 7 \times 65 \times 4 + 3 \times 21. \\
1982 &= 98 \times 7 + 6 \times (5 + 4) \times (3 + 21). \\
1983 &= 9 \times 87 + 6 \times 5 \times 4 \times (3^2 + 1). \\
1984 &= 98 + 7 + 6 \times 5 + 43^2 \times 1. \\
1985 &= 98 + 7 + 6 \times 5 + 43^2 + 1. \\
1986 &= 9 + 8 \times 7 + (6 + 54) \times 32 + 1. \\
1987 &= 9 + 8 \times 7 + 6 \times 5 \times 4^3 + 2 \times 1. \\
1988 &= 9 + 8 \times 7 + 6 \times 5 \times 4^3 + 2 + 1. \\
1989 &= 98 + 7 + 6 + 5^4 \times 3 + 2 + 1. \\
1990 &= 9 + 8 \times (7 + 6) + 5^4 \times 3 + 2 \times 1. \\
1991 &= 9 \times 8 + 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
1992 &= 9 \times 8 + 7 \times 6 + 5^4 \times 3 + 2 + 1. \\
1993 &= 9 \times 8 + 7 + 65 + 43^2 \times 1. \\
1994 &= 9 \times 8 + 7 + 65 + 43^2 + 1. \\
1995 &= 98 + 7 \times 6 + 5 + 43^2 + 1. \\
1996 &= (9 + 8) \times (7 + 6) \times (5 + 4) + 3 \times 2 + 1. \\
1997 &= 98 \times 7 + 6 \times 5 \times 43 + 21. \\
1998 &= 9 + 87 + 6 + 5^4 \times 3 + 21. \\
1999 &= 9 \times 8 + 7 + (6 + 54) \times 32 \times 1. \\
2000 &= 98 \times 7 + 6 \times 5 + 4 \times 321. \\
2001 &= 9 \times 8 + 7 + 6 \times 5 \times 4^3 + 2 \times 1. \\
2002 &= 9 \times 8 + 76 + 5 + 43^2 \times 1. \\
2003 &= 9 \times 8 + 76 + 5 + 43^2 + 1. \\
2004 &= (9 + 8 + 7) \times 6 \times 5 + 4 \times 321. \\
2005 &= 9 \times 8 + 7 \times 6 \times (5 \times 4 + 3) \times 2 + 1. \\
2006 &= 9 + 8 \times 7 + 6 \times 5 \times 4^3 + 21. \\
2007 &= 9 + 8 + 7 + 654 \times 3 + 21. \\
2008 &= (9 \times 87 + 6 + 5 \times 43) \times 2 \times 1. \\
2009 &= 9 + 8 \times 7 + 6 \times 54 \times 3 \times 2 \times 1. \\
2010 &= 9 + 8 \times 7 + 6 \times 54 \times 3 \times 2 + 1. \\
2011 &= 9 + 87 + 65 + 43^2 + 1. \\
2012 &= 9 \times (8 + 7 \times 6 + 5) \times 4 + 32 \times 1. \\
2013 &= 98 + (7 + 6) \times 5 + 43^2 + 1. \\
2014 &= 9 + 8 \times 7 \times 6 \times 5 + 4 + 321. \\
2015 &= (9 + 8 \times 76 + 54) \times 3 + 2 \times 1. \\
2016 &= 9 + 87 + (6 + 54) \times 32 \times 1. \\
2017 &= 98 + 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
2018 &= 98 + 7 \times 6 + 5^4 \times 3 + 2 + 1. \\
2019 &= 98 + 7 + 65 + 43^2 \times 1. \\
2020 &= 98 + 7 + 65 + 43^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2021 &= 12 \times (3 \times 4 + 5 + 6) \times 7 + 89. \\
2022 &= 12^3 + 45 \times 6 + 7 + 8 + 9. \\
2023 &= 12 \times 3 \times (4 + 5) \times 6 + 7 + 8 \times 9. \\
2024 &= 123 + 4 \times (5 + 6 \times 78) + 9. \\
2025 &= 12 \times 3 + (4 + 5) \times (6 + 7) \times (8 + 9). \\
2026 &= 1 + 2 + 34 \times 56 + 7 \times (8 + 9). \\
2027 &= 12^3 + 4 + 5 \times (6 \times 7 + 8 + 9). \\
2028 &= 12 \times (34 + 56 + 7 + 8 \times 9). \\
2029 &= 1^2 + 3 + 4 \times (56 + 7) \times 8 + 9. \\
2030 &= 123 + 45 \times 6 \times 7 + 8 + 9. \\
2031 &= 12^3 + 4 + 5 \times 6 \times 7 + 89. \\
2032 &= 1 + 23 \times (4 + 5) \times 6 + 789. \\
2033 &= 1 + (2 \times 3 \times 4 + 5) \times 67 + 89. \\
2034 &= 1234 + 5 + 6 + 789. \\
2035 &= 12 + 34 \times 56 + 7 \times (8 + 9). \\
2036 &= 123 + (4 + 5 \times 6) \times 7 \times 8 + 9. \\
2037 &= (1 + 2 + 3 \times 4 + 5 + 6) \times 78 + 9. \\
2038 &= 1^{23} + (4 \times 5 + 6) \times 78 + 9. \\
2039 &= 12^3 + 4 \times 56 + 78 + 9. \\
2040 &= 1 \times (2 + 34) \times 56 + 7 + 8 + 9. \\
2041 &= 1 + (2 + 34) \times 56 + 7 + 8 + 9. \\
2042 &= 1 + 2 + 34 \times 56 + (7 + 8) \times 9. \\
2043 &= (123 + 4 \times 5 + 6 + 78) \times 9. \\
2044 &= 1 + 2 \times 3 + (4 \times 5 + 6) \times 78 + 9. \\
2045 &= 12 + (3 + 45) \times 6 \times 7 + 8 + 9. \\
2046 &= 1 \times 2 \times 3 \times 4 \times 56 + 78 \times 9. \\
2047 &= 1 + 2 \times 3 \times 4 \times 56 + 78 \times 9. \\
2048 &= 12^3 + 4 \times 56 + 7 + 89. \\
2049 &= 1234 + 5 + 6 \times (7 + 8) \times 9. \\
2050 &= 1^2 + 3 \times (4 + 56 + 7 \times 89). \\
2051 &= 123 + 4 \times (5 + 6 \times 78 + 9). \\
2052 &= 1 \times (2 + 3) \times 45 \times 6 + 78 \times 9. \\
2053 &= 1234 + 5 \times 6 + 789. \\
2054 &= (1 + 234 + 56) \times 7 + 8 + 9. \\
2055 &= 12 + 3 + 4 \times 5 \times (6 + 7 + 89). \\
2056 &= (1^2 + 34) \times 56 + 7 + 89. \\
2057 &= (1 \times 234 + 5) \times 6 + 7 \times 89. \\
2058 &= 1 + (234 + 5) \times 6 + 7 \times 89. \\
2059 &= (12 + 3 \times 4 + 5) \times (6 + 7 \times 8 + 9). \\
2060 &= 12^3 + 4 \times 5 \times (6 + 7) + 8 \times 9. \\
2061 &= 12 + 3 \times (4 + 56 + 7 \times 89). \\
2062 &= 1 \times 2^3 + (4 \times 5 + 6) \times (7 + 8 \times 9). \\
2063 &= 12^3 + 45 \times 6 + 7 \times 8 + 9. \\
2064 &= 1 \times 2 \times 34 \times 5 \times 6 + 7 + 8 + 9. \\
2065 &= 1 + 2 \times 34 \times 5 \times 6 + 7 + 8 + 9. \\
2066 &= 1 + (2 + 3) \times (4 + 56 + 7 + 8 + 9). \\
2067 &= (12 + 3 + 45 \times 6) \times 7 + 8 \times 9. \\
2068 &= 1 \times 2^3 + 4 \times (5 + 6 + 7 \times 8 \times 9). \\
2069 &= 12^3 + 4 \times (56 + 7) + 89. \\
2070 &= 12 \times 34 \times 5 + 6 + 7 + 8 + 9. \\
2071 &= 1^2 + 3 \times 456 + 78 \times 9. \\
2072 &= 1 \times 2 + 3 \times 456 + 78 \times 9. \\
2073 &= 1 + 2 + 3 \times 456 + 78 \times 9. \\
2074 &= 1 + 23 \times (45 + 6 \times 7) + 8 \times 9. \\
2075 &= (1 + 23 + 45 \times 6) \times 7 + 8 + 9. \\
2076 &= 12 \times (3 \times 4 + 5 + 67 + 89). \\
2077 &= 12^3 + 45 \times 6 + 7 + 8 \times 9. \\
2078 &= 1 + 23 + (4 \times 5 + 6) \times (7 + 8 \times 9). \\
2079 &= 1234 + 56 + 789. \\
2080 &= (1 + 2 + 3 + 4 \times 5 + 6) \times (7 \times 8 + 9). \\
2081 &= 1 \times (2 + 34) \times 56 + 7 \times 8 + 9. \\
2082 &= 12 + 3 \times 456 + 78 \times 9. \\
2083 &= 1234 + 56 \times (7 + 8) + 9. \\
2084 &= 12^3 + 4 + 5 \times 67 + 8 + 9. \\
2085 &= 123 + 45 \times 6 \times 7 + 8 \times 9. \\
2086 &= 1 + (2 \times 3 + 4 + 5) \times (67 + 8 \times 9). \\
2087 &= 12^3 + 4 \times 56 + (7 + 8) \times 9. \\
2088 &= 12 \times 3 \times (4 + 5 \times 6 + 7 + 8 + 9). \\
2089 &= 1^2 + 3 \times (4 + 5 + 678 + 9). \\
2090 &= 1 \times 23 \times (45 + 6 \times 7) + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2021 &= (9 \times 8 + 7 + 6) \times 5 \times 4 + 321. \\
2022 &= 9 \times 8 \times (7 + 6) + 543 \times 2 \times 1. \\
2023 &= 9 \times 8 + 7 + 6 \times 54 \times 3 \times 2 \times 1. \\
2024 &= 9 \times 8 + 7 + 6 \times 54 \times 3 \times 2 + 1. \\
2025 &= 9 \times 8 + 76 + 5^4 \times 3 + 2 \times 1. \\
2026 &= 9 \times 8 + 76 + 5^4 \times 3 + 2 + 1. \\
2027 &= 98 + 7 + 6 \times 5 \times 4^3 + 2 \times 1. \\
2028 &= 98 + 76 + 5 + 43^2 \times 1. \\
2029 &= 98 + 76 + 5 + 43^2 + 1. \\
2030 &= 9 + 8 \times 7 + 654 \times 3 + 2 + 1. \\
2031 &= 9 + 87 \times (6 + 5 + 4 \times 3) + 21. \\
2032 &= (987 + 6 + 5 \times 4 + 3) \times 2 \times 1. \\
2033 &= (987 + 6 + 5 \times 4 + 3) \times 2 + 1. \\
2034 &= (9 + 8 \times 76 + 54) \times 3 + 21. \\
2035 &= 98 \times 7 + 65 + 4 \times 321. \\
2036 &= 98 + 7 \times 6 + 5^4 \times 3 + 21. \\
2037 &= 9 + 87 + 6 \times 5 \times 4^3 + 21. \\
2038 &= 98 + 7 + 6 \times (5 \times 4^3 + 2) + 1. \\
2039 &= 9 + 8 + (7 \times 6 + 5^4) \times 3 + 21. \\
2040 &= 9 + 87 + 6 \times 54 \times 3 \times 2 \times 1. \\
2041 &= 9 + 87 + 6 \times 54 \times 3 \times 2 + 1. \\
2042 &= 98 + (76 + 5) \times 4 \times 3 \times 2 \times 1. \\
2043 &= 9 \times 8 + 7 + 654 \times 3 + 2 \times 1. \\
2044 &= 9 \times 8 + 76 + 5^4 \times 3 + 21. \\
2045 &= (9 + 87 + 6) \times 5 \times 4 + 3 + 2 \times 1. \\
2046 &= 98 + 7 + 6 \times 5 \times 4^3 + 21. \\
2047 &= (9 + 87 + 6) \times 5 \times 4 + 3 \times 2 + 1. \\
2048 &= 9 + 8 \times 7 + 654 \times 3 + 21. \\
2049 &= 9 \times 87 + 6 + 5 \times 4 \times 3 \times 21. \\
2050 &= 98 + 7 + 6 \times 54 \times 3 \times 2 + 1. \\
2051 &= 98 + 76 + 5^4 \times 3 + 2 \times 1. \\
2052 &= 98 + 76 + 5^4 \times 3 + 2 + 1. \\
2053 &= (98 + 76 + 54) \times 3^2 + 1. \\
2054 &= 9 + 8 + 7 \times 6 \times (5 + 43) + 21. \\
2055 &= (9 + 8 + 7 + 654) \times 3 + 21. \\
2056 &= 9 \times 8 + (7 \times 6 + 5 \times 4) \times 32 \times 1. \\
2057 &= 9 \times 8 + (7 + 654) \times 3 + 2 \times 1. \\
2058 &= 9 \times 8 + (7 + 654) \times 3 + 2 + 1. \\
2059 &= 9 + 8 + (7 \times 6 + 5) \times 43 + 21. \\
2060 &= 9 + 87 + 654 \times 3 + 2 \times 1. \\
2061 &= 9 + 87 + 654 \times 3 + 2 + 1. \\
2062 &= 9 \times 8 + 7 + 654 \times 3 + 21. \\
2063 &= (9 + 8) \times 7 + 6 \times 54 \times 3 \times 2 \times 1. \\
2064 &= 9 \times 8 \times 7 + 65 \times 4 \times 3 \times 2 \times 1. \\
2065 &= 9 \times 8 \times 7 + 65 \times 4 \times 3 \times 2 + 1. \\
2066 &= 9 + 8 + 765 + 4 \times 321. \\
2067 &= 987 + 6 \times 5 \times 4 \times 3^2 \times 1. \\
2068 &= 987 + 6 \times 5 \times 4 \times 3^2 + 1. \\
2069 &= 98 + 7 + 654 \times 3 + 2 \times 1. \\
2070 &= 98 + 7 + 654 \times 3 + 2 + 1. \\
2071 &= 9 + 8 + 76 \times (5 + 4) \times 3 + 2 \times 1. \\
2072 &= (9 + 87 + 6) \times 5 \times 4 + 32 \times 1. \\
2073 &= 9 + 8 \times 7 \times 6 + 54 \times 32 \times 1. \\
2074 &= 9 + 8 \times 7 \times 6 + 54 \times 32 + 1. \\
2075 &= 9 \times 87 + 6 \times 5 \times 43 + 2 \times 1. \\
2076 &= 9 \times 87 + 6 \times 5 \times 43 + 2 + 1. \\
2077 &= 9 + 8 + 7 \times 6 \times 5 + 43^2 + 1. \\
2078 &= 9 \times 87 + 6 + 5 + 4 \times 321. \\
2079 &= 9 + 87 + 654 \times 3 + 21. \\
2080 &= 987 + 6 + 543 \times 2 + 1. \\
2081 &= 9 + 8 \times (76 + 54 \times 3 + 21). \\
2082 &= 9 + 876 + (54 + 3) \times 21. \\
2083 &= 98 + (7 + 654) \times 3 + 2 \times 1. \\
2084 &= (9 + 8) \times 7 + 654 \times 3 + 2 + 1. \\
2085 &= 98 + (7 + 6 \times 54) \times 3 \times 2 + 1. \\
2086 &= 987 + (6 + 543) \times 2 + 1. \\
2087 &= (9 \times 8 + 7) \times (6 + 5 \times 4) + 32 + 1. \\
2088 &= 98 + 7 + 654 \times 3 + 21. \\
2089 &= 98 \times (7 + 6 + 5) + 4 + 321. \\
2090 &= 9 + 8 + 76 \times (5 + 4) \times 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2091 &= 1 + 23 \times (45 + 6 \times 7) + 89. \\
2092 &= 1^2 \times 3 + 4 \times 5 \times (6 + 7) \times 8 + 9. \\
2093 &= 12^3 + 4 \times 5 + 6 \times 7 \times 8 + 9. \\
2094 &= 12^3 + 45 \times 6 + 7 + 89. \\
2095 &= 1^2 + 345 \times 6 + 7 + 8 + 9. \\
2096 &= 1 \times 2 + 345 \times 6 + 7 + 8 + 9. \\
2097 &= 12 \times 34 + 5 \times 6 \times 7 \times 8 + 9. \\
2098 &= 1^2 + 3 \times (45 + 6 \times 7) \times 8 + 9. \\
2099 &= 12 \times 34 \times 5 + 6 \times 7 + 8 + 9. \\
2100 &= 12 + 3 \times (4 + 5 + 678 + 9). \\
2101 &= 1234 + (5 + 6) \times 78 + 9. \\
2102 &= 123 + 45 \times 6 \times 7 + 89. \\
2103 &= 1 + (234 + 56) \times 7 + 8 \times 9. \\
2104 &= 1 + (2 + 34) \times 56 + 78 + 9. \\
2105 &= 1 \times 2 \times 34 \times 5 \times 6 + 7 \times 8 + 9. \\
2106 &= 12 + 345 \times 6 + 7 \times 8 + 9. \\
2107 &= 1 + 234 \times 5 + (6 + 7) \times 8 \times 9. \\
2108 &= 12^3 + 4 \times (5 + 6) \times 7 + 8 \times 9. \\
2109 &= (1 + 234 + 56) \times 7 + 8 \times 9. \\
2110 &= 1 + (2 + 3 + 4 \times 5) \times (6 + 78) + 9. \\
2111 &= 12 \times 34 \times 5 + 6 + 7 \times 8 + 9. \\
2112 &= 1 \times 23 + 4 \times 5 \times (6 + 7) \times 8 + 9. \\
2113 &= 1 + (2 + 34) \times 56 + 7 + 89. \\
2114 &= 1 + 2 \times (3 + 4^5) + 6 \times 7 + 8 + 9. \\
2115 &= (1 + 2 + 3)^4 + 5 \times 6 + 789. \\
2116 &= 12^3 + 4 + 5 \times (67 + 8) + 9. \\
2117 &= 12 + (3 + 45) \times 6 \times 7 + 89. \\
2118 &= 12^3 + 45 + 6 \times 7 \times 8 + 9. \\
2119 &= 1 \times 2 \times 34 \times 5 \times 6 + 7 + 8 \times 9. \\
2120 &= 1 + 2 \times 34 \times 5 \times 6 + 7 + 8 \times 9. \\
2121 &= 12 \times (3^4 + 5 \times 6) + 789. \\
2122 &= 1^2 + 3 \times (4 \times 5 + 678 + 9). \\
2123 &= 1 \times 2 \times 3 \times (4 + 5 \times 67) + 89. \\
2124 &= 12 \times 34 \times 5 + 67 + 8 + 9. \\
2125 &= 12 \times 34 \times 5 + 6 + 7 + 8 \times 9. \\
2126 &= (1 + 234 + 56) \times 7 + 89. \\
2127 &= 1 \times 2 \times 34 \times 5 \times 6 + 78 + 9. \\
2128 &= 1 + 2 \times 34 \times 5 \times 6 + 78 + 9. \\
2129 &= 1 + 2 \times (3 + 4) \times (56 + 7 + 89). \\
2130 &= 12 \times 3 \times 45 + 6 + 7 \times 8 \times 9. \\
2131 &= 1 \times 2 \times (3 + 4^5 + 6) + 7 \times 8 + 9. \\
2132 &= 1 + 2 \times (3 + 4^5 + 6) + 7 \times 8 + 9. \\
2133 &= 1 \times 2 \times 3 \times 4 \times 56 + 789. \\
2134 &= 1 + 2 \times 3 \times 4 \times 56 + 789. \\
2135 &= 1^2 \times 345 \times 6 + 7 \times 8 + 9. \\
2136 &= 1^2 + 345 \times 6 + 7 \times 8 + 9. \\
2137 &= 1 \times 2 + 345 \times 6 + 7 \times 8 + 9. \\
2138 &= 1 + 2 + 345 \times 6 + 7 \times 8 + 9. \\
2139 &= 12^3 + 4 + 5 \times 67 + 8 \times 9. \\
2140 &= 1 + (2 + 3) \times 45 \times 6 + 789. \\
2141 &= 12^3 + 4 + 56 \times 7 + 8 + 9. \\
2142 &= 12 \times 34 \times 5 + 6 + 7 + 89. \\
2143 &= 1 + 2 \times 3 + 4 \times (5 \times 6 + 7 \times 8 \times 9). \\
2144 &= 1 + 2 \times (34 \times 5 \times 6 + 7) + 89. \\
2145 &= (1 + 2 + 3 \times 4) \times (56 + 78 + 9). \\
2146 &= 1 + 2 \times 3 \times 4 \times (5 + 6 + 78) + 9. \\
2147 &= 12 + 345 \times 6 + 7 \times 8 + 9. \\
2148 &= 123 + 4 \times (56 + 7) \times 8 + 9. \\
2149 &= 1^2 \times 345 \times 6 + 7 + 8 \times 9. \\
2150 &= 1^2 + 345 \times 6 + 7 + 8 \times 9. \\
2151 &= 1 \times 2 + 345 \times 6 + 7 + 8 \times 9. \\
2152 &= 1 + 2 + 345 \times 6 + 7 + 8 \times 9. \\
2153 &= 12 \times 34 \times 5 + (6 + 7) \times 8 + 9. \\
2154 &= 12 \times 34 \times 5 + 6 \times 7 + 8 \times 9. \\
2155 &= (1^2 + 345) \times 6 + 7 + 8 \times 9. \\
2156 &= 12^3 + 4 + 5 \times 67 + 89. \\
2157 &= 1^2 \times 345 \times 6 + 78 + 9. \\
2158 &= 1^2 + 345 \times 6 + 78 + 9. \\
2159 &= 1 \times 2 + 345 \times 6 + 78 + 9. \\
2160 &= 1 + 2 + 3 \times 456 + 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2091 &= 9 + (87 + 65 \times 4) \times 3 \times 2 \times 1. \\
2092 &= 9 + (87 + 65 \times 4) \times 3 \times 2 + 1. \\
2093 &= (9 \times 87 + 65 \times 4 + 3) \times 2 + 1. \\
2094 &= 9 \times 87 + 6 \times 5 \times 43 + 21. \\
2095 &= 98 \times 7 + 65 + 4^3 \times 21. \\
2096 &= 9 + 8 \times (7 + 6) \times 5 \times 4 + 3 \times 2 + 1. \\
2097 &= 9 \times 87 + 6 \times 5 + 4 \times 321. \\
2098 &= 9 \times 87 + (654 + 3) \times 2 + 1. \\
2099 &= 9 \times (8 + 7) \times 6 + 5 + 4 \times 321. \\
2100 &= 9 \times (8 + 7) + 654 \times 3 + 2 + 1. \\
2101 &= (987 + 6 + 54 + 3) \times 2 + 1. \\
2102 &= (9 + 8) \times 7 + 654 \times 3 + 21. \\
2103 &= (9 + 87 + 6) \times 5 \times 4 + 3 \times 21. \\
2104 &= (9 \times (87 + 6) + 5 \times 43) \times 2 \times 1. \\
2105 &= (98 \times 7 + 6 + 5 + 4) \times 3 + 2 \times 1. \\
2106 &= 9 \times 87 + (6 + 54 + 3) \times 21. \\
2107 &= (987 + 6 + 5 \times 4 \times 3) \times 2 + 1. \\
2108 &= 9 + (8 + 7 \times 6) \times 5 + 43^2 \times 1. \\
2109 &= 9 \times 8 + 7 \times 6 \times (5 + 43) + 21. \\
2110 &= (9 + 8) \times (76 + 5 + 43) + 2 \times 1. \\
2111 &= 9 + 8 \times 7 + 6 \times (5 \times 4 + 321). \\
2112 &= (9 + 8) \times (7 + 6 \times 5 + 4) \times 3 + 21. \\
2113 &= 9 + 8 \times (7 + 6) \times 5 \times 4 + 3 + 21. \\
2114 &= (9 \times 8 + 7 \times 65) \times 4 + 3 + 2 + 1. \\
2115 &= (9 \times 8 + 7 \times 65) \times 4 + 3 \times 2 + 1. \\
2116 &= 98 + 7 \times 6 \times (5 + 43) + 2 \times 1. \\
2117 &= 98 + 7 \times 6 \times (5 + 43) + 2 + 1. \\
2118 &= 9 \times (8 + 7) + 654 \times 3 + 21. \\
2119 &= (987 + 65 + 4 + 3) \times 2 + 1. \\
2120 &= (987 + 6 \times 5 + 43) \times 2 \times 1. \\
2121 &= 9 \times 8 + 765 + 4 \times 321. \\
2122 &= 9 + 8 \times 7 \times 6 \times 5 + 432 + 1. \\
2123 &= (9 \times 8 \times 7 + 6 + 5) \times 4 + 3 \times 21. \\
2124 &= (98 \times 7 + 6 + 5 + 4) \times 3 + 21. \\
2125 &= (9 + 8 \times 7 \times 6 + 5 + 4) \times 3 \times 2 + 1. \\
2126 &= 9 + 8 + 765 + 4^3 \times 21. \\
2127 &= 9 + (87 \times 6 + 5) \times 4 + 3^2 + 1. \\
2128 &= (987 + 65 + 4 \times 3) \times 2 \times 1. \\
2129 &= (9 \times 8 + 76 \times 5) \times 4 + 321. \\
2130 &= 9 + (8 + 7) \times 6 \times 5 \times 4 + 321. \\
2131 &= 9 \times 8 + 7 \times 6 \times 5 + 43^2 \times 1. \\
2132 &= 9 \times 87 + 65 + 4 \times 321. \\
2133 &= 9 \times 87 + 6 \times 5 \times (43 + 2) \times 1. \\
2134 &= 9 + 8 \times ((7 + 6) \times 5 \times 4 + 3) + 21. \\
2135 &= 98 + 7 \times 6 \times (5 + 43) + 21. \\
2136 &= (9 + 8 + 7 + 65) \times 4 \times 3 \times 2 \times 1. \\
2137 &= (9 + 8 + 7 + 65) \times 4 \times 3 \times 2 + 1. \\
2138 &= 9 \times 87 + 6 + 5 + 4^3 \times 21. \\
2139 &= (98 \times 7 + 6 + 5 \times 4) \times 3 + 2 + 1. \\
2140 &= 98 + (7 \times 6 + 5) \times 43 + 21. \\
2141 &= 9 + (87 \times 6 + 5) \times 4 + 3 + 21. \\
2142 &= (9 + 8 \times 7 + 6 \times 5 + 4 + 3) \times 21. \\
2143 &= (9 \times 8 + 76 + 5) \times (4 + 3) \times 2 + 1. \\
2144 &= 9 + 8 + (7 + 6) \times 54 \times 3 + 21. \\
2145 &= 9 + 876 + 5 \times 4 \times 3 \times 21. \\
2146 &= 9 + (8 + 76 + 5) \times 4 \times 3 \times 2 + 1. \\
2147 &= 98 + 765 + 4 \times 321. \\
2148 &= (9 + 87 \times 6 + 543) \times 2 \times 1. \\
2149 &= (9 + 87 \times 6 + 543) \times 2 + 1. \\
2150 &= (9 + 87 \times 6 + 5) \times 4 + 3 + 2 + 1. \\
2151 &= 9 + 8 \times (7 + 65 \times 4) + 3 + 2 + 1. \\
2152 &= 98 + 76 \times (5 + 4) \times 3 + 2 \times 1. \\
2153 &= 98 + 76 \times (5 + 4) \times 3 + 2 + 1. \\
2154 &= (98 + 76) \times 5 + 4 \times 321. \\
2155 &= 9 + 8 \times (7 + 6 \times 5) + 43^2 + 1. \\
2156 &= 9 + 87 \times 6 + 5 \times (4 + 321). \\
2157 &= 9 \times 87 + 6 \times 5 + 4^3 \times 21. \\
2158 &= 9 + 8 + 7 \times 65 \times 4 + 321. \\
2159 &= 9 \times (8 + 7) \times 6 + 5 + 4^3 \times 21. \\
2160 &= (9 + 8 \times 7 + 654) \times 3 + 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2161 &= 12 + 345 \times 6 + 7 + 8 \times 9. \\
2162 &= 1 + (23 + 4 + 5) \times 67 + 8 + 9. \\
2163 &= 123 + 4 \times 5 \times (6 + 7 + 89). \\
2164 &= 1 \times 2 \times (3 + 456 + 7 \times 89). \\
2165 &= 12 \times 3 \times 45 + 67 \times 8 + 9. \\
2166 &= 1^2 \times 345 \times 6 + 7 + 89. \\
2167 &= 1^2 + 345 \times 6 + 7 + 89. \\
2168 &= 1 \times 2 + 345 \times 6 + 7 + 89. \\
2169 &= 12 + 3 \times 456 + 789. \\
2170 &= 1 + 23 \times (4 + 56) + 789. \\
2171 &= 12 \times 34 \times 5 + 6 \times 7 + 89. \\
2172 &= 1 + 2^3 + 4^5 + 67 \times (8 + 9). \\
2173 &= 1 + (2 + 3 + 45) \times 6 \times 7 + 8 \times 9. \\
2174 &= 1 \times 23 \times 45 + 67 \times (8 + 9). \\
2175 &= 1234 + 5 + (6 + 7) \times 8 \times 9. \\
2176 &= 1 + 2 \times 34 \times 5 \times 6 + (7 + 8) \times 9. \\
2177 &= 12 \times 3 \times (45 + 6 + 7) + 89. \\
2178 &= 12 + 345 \times 6 + 7 + 89. \\
2179 &= 12 \times 34 \times 5 + 67 + 8 \times 9. \\
2180 &= 1 + 2 \times 3 + 4 \times (5 + 67 \times 8) + 9. \\
2181 &= 123 \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
2182 &= 1 + 2^3 + 4 \times (5 + 67 \times 8) + 9. \\
2183 &= 123 + 4 \times (5 + 6 + 7 \times 8 \times 9). \\
2184 &= 1 \times 2^3 \times 45 \times 6 + 7 + 8 + 9. \\
2185 &= 1 + 2^3 \times 45 \times 6 + 7 + 8 + 9. \\
2186 &= 1 \times 23 + 4^5 + 67 \times (8 + 9). \\
2187 &= 1 + 23 + 4^5 + 67 \times (8 + 9). \\
2188 &= 12 + 34 \times (5 + 6 \times 7 + 8 + 9). \\
2189 &= (1 + 2 + 3 + 4) \times 5 \times 6 \times 7 + 89. \\
2190 &= 1^2 + 345 \times 6 + 7 \times (8 + 9). \\
2191 &= (1 + 23 + 4) \times 56 + 7 \times 89. \\
2192 &= 1 \times 23 \times 45 + (6 + 7) \times 89. \\
2193 &= 1 + 23 \times 45 + (6 + 7) \times 89. \\
2194 &= 1 + 2 \times (3 + 4^5) + 67 + 8 \times 9. \\
2195 &= 12^3 + (4 + 5) \times 6 \times 7 + 89. \\
2196 &= 12 \times 34 \times 5 + 67 + 89. \\
2197 &= 12^3 + 4 + 5 \times (6 + 78 + 9). \\
2198 &= 12^3 + 4 \times 5 + (6 \times 7 + 8) \times 9. \\
2199 &= 12 \times (34 \times 5 + 6) + 78 + 9. \\
2200 &= (1 + 2)^3 + 4 \times (5 + 67 \times 8) + 9. \\
2201 &= 12 + 345 \times 6 + 7 \times (8 + 9). \\
2202 &= 1 + (2 + 345) \times 6 + 7 \times (8 + 9). \\
2203 &= 1^2 \times 3 + 4 \times (5 + 67 \times 8 + 9). \\
2204 &= 1 \times 23 + 4^5 + (6 + 7) \times 89. \\
2205 &= 1 + 23 + 4^5 + (6 + 7) \times 89. \\
2206 &= 1^2 + 345 \times 6 + (7 + 8) \times 9. \\
2207 &= 12 \times 3 \times 4 \times (5 + 6) + 7 \times 89. \\
2208 &= 12^3 + 456 + 7 + 8 + 9. \\
2209 &= 12 \times 3 + 4 \times (5 + 67 \times 8) + 9. \\
2210 &= 1 \times 2 \times (3 + 4^5) + 67 + 89. \\
2211 &= 1 + 2 \times (3 + 4^5) + 67 + 89. \\
2212 &= 123 + 4 \times 5 \times (6 + 7) \times 8 + 9. \\
2213 &= 12^3 + 4 + 56 \times 7 + 89. \\
2214 &= 12^3 + 4 + 5 + 6 \times 78 + 9. \\
2215 &= 12 + 3 + 4 \times (5 + 67 \times 8 + 9). \\
2216 &= 1 \times (23 + 4 + 5) \times 67 + 8 \times 9. \\
2217 &= 12 + 345 \times 6 + (7 + 8) \times 9. \\
2218 &= 1 + (2 + 345) \times 6 + (7 + 8) \times 9. \\
2219 &= (1 + 23) \times 45 + 67 \times (8 + 9). \\
2220 &= 12^3 + (4 + 56) \times 7 + 8 \times 9. \\
2221 &= (12 + 345) \times 6 + 7 + 8 \times 9. \\
2222 &= 1 \times 2 \times (3 + 4^5 + 67 + 8 + 9). \\
2223 &= (1 \times 234 + 5) \times 6 + 789. \\
2224 &= 1 + (234 + 5) \times 6 + 789. \\
2225 &= 12^3 + 4 \times 5 + 6 \times 78 + 9. \\
2226 &= 1 + 2^3 \times 45 \times 6 + 7 \times 8 + 9. \\
2227 &= 1^2 \times 34 \times 5 \times (6 + 7) + 8 + 9. \\
2228 &= (1 + 23 + 4 + 5) \times 67 + 8 + 9. \\
2229 &= (1 + 234 + 5) \times 6 + 789. \\
2230 &= 1 + 2 + 34 \times 5 \times (6 + 7) + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2161 &= 9 + 8 + (7 + 6 + 54) \times 32 \times 1. \\
2162 &= 9 + 8 + (7 + 6 + 54) \times 32 + 1. \\
2163 &= (98 \times 7 + 6 \times 5 + 4) \times 3 + 2 + 1. \\
2164 &= (9 + 8) \times (7 + 6 \times 5 \times 4) + 3 + 2 \times 1. \\
2165 &= 98 \times (7 + 6 + 5 + 4) + 3^2 \times 1. \\
2166 &= 9 + 8 + 7 + 6 \times (5 + 4 \times 3) \times 21. \\
2167 &= (9 \times 8 + 7 \times 6) \times (5 + 4 \times 3 + 2) + 1. \\
2168 &= (9 + 87 \times 6 + 5) \times 4 + 3 + 21. \\
2169 &= (98 + 76 + 5) \times 4 \times 3 + 21. \\
2170 &= 9 + (8 + 7) \times (65 + 4 + 3) \times 2 + 1. \\
2171 &= (9 \times 8 + 7 \times 65) \times 4 + 3 \times 21. \\
2172 &= 9 + 8 \times (7 + 65 \times 4 + 3) + 2 + 1. \\
2173 &= 9 \times 8 + 7 \times 6 \times (5 + 43 + 2) + 1. \\
2174 &= 9 + 876 + 5 + 4 \times 321. \\
2175 &= (9 + 8 + 76 + 5^4) \times 3 + 21. \\
2176 &= (9 + 87 \times 6 + 5) \times 4 + 32 \times 1. \\
2177 &= (9 + 87 \times 6 + 5) \times 4 + 32 + 1. \\
2178 &= (9 + 8 \times 7 + 654) \times 3 + 21. \\
2179 &= (98 + 7) \times (6 + 5) + 4(3 + 2) \times 1. \\
2180 &= 98 \times (7 + 6 + 5 + 4) + 3 + 21. \\
2181 &= 9 \times 8 + 765 + 4^3 \times 21. \\
2182 &= 98 \times (7 + 6) + 5 + 43 \times 21. \\
2183 &= (9 + 87 + 6 + 5^4) \times 3 + 2 \times 1. \\
2184 &= (9 + 87 + 6 + 5^4) \times 3 + 2 + 1. \\
2185 &= 9 + 8 \times (76 + 5 \times 4 \times 3) \times 2 \times 1. \\
2186 &= 9 + 8 \times (76 + 5 \times 4 \times 3) \times 2 + 1. \\
2187 &= 987 + 6 \times 5 \times 4 \times (3^2 + 1). \\
2188 &= 98 \times (7 + 6 + 5 + 4) + 32 \times 1. \\
2189 &= 98 \times (7 + 6 + 5 + 4) + 32 + 1. \\
2190 &= 987 + 6 + (54 + 3) \times 21. \\
2191 &= 9 + 8 + 7 + 6 + 5 \times 432 + 1. \\
2192 &= 9 \times 87 + 65 + 4^3 \times 21. \\
2193 &= 9 + 8 \times 7 \times (6 + 5 + 4 + 3 + 21). \\
2194 &= 9 + 8 \times 7 \times (6 \times 5 + 4 + 3 + 2) + 1. \\
2195 &= 9 + 8 + 7 + 6 + 5 \times (432 + 1). \\
2196 &= 98 \times (7 + 6 + 5) + 432 \times 1. \\
2197 &= 98 \times (7 + 6 + 5) + 432 + 1. \\
2198 &= 98 + 7 \times 6 \times 5 \times (4 + 3 + 2 + 1). \\
2199 &= 9 + 8 \times 7 \times 6 + 5 + 432^2 \times 1. \\
2200 &= 9 + 8 \times 7 \times 6 + 5 + 432^2 + 1. \\
2201 &= (9 + 876 + 5 \times 43) \times 2 + 1. \\
2202 &= (9 \times 8 + 7 + 654) \times 3 + 2 + 1. \\
2203 &= (9 \times 8 + 7) \times 6 + 54 \times 32 + 1. \\
2204 &= (9 + 8 \times 7 + 6) \times 5 + 432^2 \times 1. \\
2205 &= (9 + 8 + 76 + 5 + 4 + 3) \times 21. \\
2206 &= 98 + (7 + 6) \times 54 \times 3 + 2 \times 1. \\
2207 &= 98 + 765 + 4^3 \times 21. \\
2208 &= 9 + 8 \times (7 + 65 \times 4) + 3 \times 21. \\
2209 &= (9 + 8 + 7 \times 65) \times 4 + 321. \\
2210 &= (98 + 7 + 6 + 5^4) \times 3 + 2 \times 1. \\
2211 &= (98 + 7 + 6 + 5^4) \times 3 + 2 + 1. \\
2212 &= (9 + 8) \times 7 \times (6 + 5) + 43 \times 21. \\
2213 &= 9 \times 8 + 7 \times 65 \times 4 + 321. \\
2214 &= (98 + 76) \times 5 + 4^3 \times 21. \\
2215 &= 9 \times 8 + 7 \times (6 \times 5 + 4) \times 3^2 + 1. \\
2216 &= 9 \times 8 + (7 + 6 + 54) \times 32 \times 1. \\
2217 &= 9 \times 8 + (7 + 6 + 54) \times 32 + 1. \\
2218 &= (98 + 7 \times 65) \times 4 + 3 + 2 + 1. \\
2219 &= 9 + 8 + 7 \times 6 + 5 \times 432 \times 1. \\
2220 &= 9 + 8 + 7 \times 6 + 5 \times 432 + 1. \\
2221 &= 9 \times 8 + 7 + (6 \times 5 + 4) \times 3 \times 21. \\
2222 &= 9 + 8 \times 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
2223 &= 9 + 8 \times 7 \times 6 + 5^4 \times 3 + 2 + 1. \\
2224 &= 9 + 8 + 7 \times 6 + 5 \times (432 + 1). \\
2225 &= 98 + (7 + 6) \times 54 \times 3 + 21. \\
2226 &= (98 + 7 + 6) \times 5 \times 4 + 3 \times 2 \times 1. \\
2227 &= (98 + 7 + 6) \times 5 \times 4 + 3 \times 2 + 1. \\
2228 &= 98 \times 7 + 6 \times (5 + 4 \times 3 \times 21). \\
2229 &= 9 \times (8 + 7 + 6) \times 5 + 4 \times 321. \\
2230 &= (98 + 7 + 6) \times 5 \times 4 + 3^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2231 &= (12 \times 3 + 45 \times 6) \times 7 + 89. \\
2232 &= (1 + 2 + 34 \times 5 + 67 + 8) \times 9. \\
2233 &= 1 \times (23 + 4 + 5) \times 67 + 89. \\
2234 &= 1 + 2 + 34 \times (56 + 7) + 89. \\
2235 &= (1 + 2 + 3 \times 4) \times (5 \times 6 + 7 \times (8 + 9)). \\
2236 &= 12 \times 3 + 4 \times (5 + 67 \times 8 + 9). \\
2237 &= (1 + 23) \times 45 + (6 + 7) \times 89. \\
2238 &= (12 + 345) \times 6 + 7 + 89. \\
2239 &= 12 \times 3 \times (4 + 56) + 7 + 8 \times 9. \\
2240 &= 1 + 2^3 \times 45 \times 6 + 7 + 8 \times 9. \\
2241 &= 12 + 3 \times (4 \times 5 \times 6 + 7 \times 89). \\
2242 &= 12^3 + 4 + 5 \times (6 + 7 + 89). \\
2243 &= 1 \times 2 \times 3 \times 45 \times 6 + 7 \times 89. \\
2244 &= 1 + 2 \times 3 \times 45 \times 6 + 7 \times 89. \\
2245 &= 1 \times 2 + 3 + 4 \times (56 + 7 \times 8 \times 9). \\
2246 &= 123 \times (4 + 5) + 67 \times (8 + 9). \\
2247 &= 12^3 + 4 + 5 + 6 + 7 \times 8 \times 9. \\
2248 &= 1 + 2^3 \times 45 \times 6 + 78 + 9. \\
2249 &= 12^3 + 456 + 7 \times 8 + 9. \\
2250 &= 12^3 + 45 + 6 \times 78 + 9. \\
2251 &= (12 + 34) \times (5 + 6 \times 7) + 89. \\
2252 &= 1^{23} \times 4 \times (5 + (6 + 7 \times 8) \times 9). \\
2253 &= (1 + 2) \times (3 \times 4 \times 56 + 7 + 8 \times 9). \\
2254 &= 1 + (2 + 34 \times 5) \times (6 + 7) + 8 + 9. \\
2255 &= 12 + 3 + 4 \times (56 + 7 \times 8 \times 9). \\
2256 &= 1 \times 2^3 \times 45 \times 6 + 7 + 89. \\
2257 &= 1 + 2^3 \times 45 \times 6 + 7 + 89. \\
2258 &= 12^3 + 4 \times 5 + 6 + 7 \times 8 \times 9. \\
2259 &= 12^3 + 4 + 5 + 6 \times (78 + 9). \\
2260 &= 1 \times 2 \times (3 + 4^5 + 67) + 8 \times 9. \\
2261 &= 12^3 + 4 + 5 \times (6 + 7) \times 8 + 9. \\
2262 &= (1 + 2 + 3 \times 4 + 5 + 6) \times (78 + 9). \\
2263 &= 12^3 + 456 + 7 + 8 \times 9. \\
2264 &= 1 + 23 + 4 \times (56 + 7 \times 8 \times 9). \\
2265 &= 12 \times (3 + 4 \times 5 \times 6) + 789. \\
2266 &= 12^3 + 4 + 5 \times 6 + 7 \times 8 \times 9. \\
2267 &= 12 \times (3^4 + 56) + 7 \times 89. \\
2268 &= (123 + 45 + 6 + 78) \times 9. \\
2269 &= 12 + 3 + 4 + 5 \times (6 \times 7 + 8) \times 9. \\
2270 &= (1 + 23 + 4) \times 56 + 78 \times 9. \\
2271 &= 12^3 + 456 + 78 + 9. \\
2272 &= 12^3 + 4 \times (5 + 6 \times 7 + 89). \\
2273 &= (123 + 45) \times (6 + 7) + 89. \\
2274 &= 12 + 3 + 45 \times (6 \times 7 + 8) + 9. \\
2275 &= 1 + 2 \times 3 \times 4 + 5 \times (6 \times 7 + 8) \times 9. \\
2276 &= 12 \times 3 + 4 \times (56 + 7 \times 8 \times 9). \\
2277 &= (1 + 2) \times (3 \times 4 \times 56 + 78 + 9). \\
2278 &= 1 + 23 + 4 + 5 \times (6 \times 7 + 8) \times 9. \\
2279 &= 12 \times (3 + 4 \times 5) \times 6 + 7 \times 89. \\
2280 &= 12^3 + 456 + 7 + 89. \\
2281 &= 1 + 2 \times (345 + 6 + 789). \\
2282 &= 12^3 + 4 + 5 + 67 \times 8 + 9. \\
2283 &= 12^3 + 45 + 6 + 7 \times 8 \times 9. \\
2284 &= 1 \times 2 + 34 \times 5 \times (6 + 7) + 8 \times 9. \\
2285 &= 1^{23} \times 4 \times 567 + 8 + 9. \\
2286 &= 1^{23} + 4 \times 567 + 8 + 9. \\
2287 &= 1 + 2 \times 3^4 \times (5 + 6) + 7 \times 8 \times 9. \\
2288 &= 1^2 \times 3 + 4 \times 567 + 8 + 9. \\
2289 &= 1^2 + 3 + 4 \times 567 + 8 + 9. \\
2290 &= 1 \times 2 + 3 + 4 \times 567 + 8 + 9. \\
2291 &= 1 + 2 + 3 + 4 \times 567 + 8 + 9. \\
2292 &= 1 + 2 \times 3 + 4 \times 567 + 8 + 9. \\
2293 &= 12^3 + 4 \times 5 + 67 \times 8 + 9. \\
2294 &= 1 + 2^3 + 4 \times 567 + 8 + 9. \\
2295 &= (1 \times 23 + 45 + 67) \times (8 + 9). \\
2296 &= 1 \times 2^3 \times 4 \times 56 + 7 \times 8 \times 9. \\
2297 &= 1 + 2^3 \times 4 \times 56 + 7 \times 8 \times 9. \\
2298 &= 1 \times 2 \times (3 \times 4 \times 5 \times 6 + 789). \\
2299 &= 1 + 2 \times (3 \times 4 \times 5 \times 6 + 789). \\
2300 &= 12 + 3 + 4 \times 567 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2231 &= 9 + 8 \times 7 + 6 + 5 \times 432 \times 1. \\
2232 &= 9 + 8 \times 7 + 6 + 5 \times 432 + 1. \\
2233 &= 9 \times 8 \times 7 + 6 \times (5 + 4) \times 32 + 1. \\
2234 &= 9 + 876 + 5 + 4^3 \times 21. \\
2235 &= 9 + (87 + 654) \times 3 + 2 + 1. \\
2236 &= (98 + 7 \times 65) \times 4 + 3 + 21. \\
2237 &= ((9 \times 8 + 7) \times 6 + 5) \times 4 + 321. \\
2238 &= 9 \times 8 \times 7 + 6 + 54 \times 32 \times 1. \\
2239 &= 98 + 7 \times 65 \times 4 + 321. \\
2240 &= (98 \times 7 + 6 + 54) \times 3 + 2 \times 1. \\
2241 &= (98 \times 7 + 6 + 54) \times 3 + 2 + 1. \\
2242 &= 9 + 8 \times 76 + 5 \times (4 + 321). \\
2243 &= 98 + (7 + 6 + 54) \times 32 + 1. \\
2244 &= (98 + 7 \times 65) \times 4 + 32 \times 1. \\
2245 &= 9 \times 8 + 7 + 6 + 5 \times 432 \times 1. \\
2246 &= 98 \times 7 + 65 \times 4 \times 3 \times 2 \times 1. \\
2247 &= 98 \times 7 + 65 \times 4 \times 3 \times 2 + 1. \\
2248 &= (9 + 8) \times (7 + 65) + 4(3 + 2) \times 1. \\
2249 &= 9 + (8 + 7 \times 6 + 5 \times 4) \times 32 \times 1. \\
2250 &= 9 + 87 \times (6 + 5) + 4 \times 321. \\
2251 &= (9 \times 8 + 7 \times 6 \times (5 + 4)) \times (3 + 2) + 1. \\
2252 &= (9 + 87 + 654) \times 3 + 2 \times 1. \\
2253 &= 987 + 6 + 5 \times 4 \times 3 \times 21. \\
2254 &= 9 + 8 + 76 + 5 \times 432 + 1. \\
2255 &= 987 + (6 + 5^4 + 3) \times 2 \times 1. \\
2256 &= 987 + (6 + 5^4 + 3) \times 2 + 1. \\
2257 &= 9 \times 8 + 7 \times 6 \times (5 \times 4 + 32) + 1. \\
2258 &= 9 + 8 + 76 + 5 \times (432 + 1). \\
2259 &= 9 + 87 \times 6 + 54 \times 32 \times 1. \\
2260 &= 9 + 87 \times 6 + 54 \times 32 + 1. \\
2261 &= (9 + 8 + 7 + 6 + 5) \times 4^3 + 21. \\
2262 &= 9 + 87 + 6 + 5 \times 432 \times 1. \\
2263 &= 9 + 87 + 6 + 5 \times 432 + 1. \\
2264 &= 9 \times (8 + 7 \times 6) \times 5 + 4 \times 3 \times 2 \times 1. \\
2265 &= 9 \times (8 + 7 \times 6) \times 5 + 4 \times 3 + 2 + 1. \\
2266 &= (9 + 8 \times (7 + 6)) \times 5 \times 4 + 3 + 2 + 1. \\
2267 &= (98 \times 7 + 65 + 4) \times 3 + 2 \times 1. \\
2268 &= 9 + (8 + 7) \times 65 + 4 \times 321. \\
2269 &= (9 + 8 \times (7 + 6)) \times 5 \times 4 + 3 \times (2 + 1). \\
2270 &= 9 \times (8 + 7 + 65 + 4) \times 3 + 2 \times 1. \\
2271 &= 98 + 7 + 6 + 5 \times 432 \times 1. \\
2272 &= 98 + 7 + 6 + 5 \times 432 + 1. \\
2273 &= 9 + 8 \times (7 + 6) + 5 \times 432 \times 1. \\
2274 &= 9 \times 8 + 7 \times 6 + 5 \times 432 \times 1. \\
2275 &= 9 \times 8 + 7 \times 6 + 5 \times 432 + 1. \\
2276 &= 98 + 7 + 6 + 5 \times (432 + 1). \\
2277 &= 9 + 87 \times (6 + 5 \times 4) + 3 + 2 + 1. \\
2278 &= 9 + 87 \times (6 + 5 \times 4) + 3 \times 2 + 1. \\
2279 &= 987 + 6 \times 5 \times 43 + 2 \times 1. \\
2280 &= 987 + 6 \times 5 \times 43 + 2 + 1. \\
2281 &= (9 \times 8 \times 7 + 65) \times 4 + 3 + 2 \times 1. \\
2282 &= 987 + 6 + 5 + 4 \times 321. \\
2283 &= 9 \times (8 + 7 \times 6) \times 5 + 4 \times 3 + 21. \\
2284 &= (9 + 8 \times (7 + 6)) \times 5 \times 4 + 3 + 21. \\
2285 &= 9 + 8 + 7 \times 6 \times (5 + 4) \times 3 \times 2 \times 1. \\
2286 &= (9 + 8) \times 7 + 6 + 5 \times 432 + 1. \\
2287 &= 987 + 65 \times 4 \times (3 + 2) \times 1. \\
2288 &= 9 \times 8 + 7 + (65 + 4) \times 32 + 1. \\
2289 &= 987 + 6 + 54 \times (3 + 21). \\
2290 &= 9 + 8 + 7 \times 6 \times 54 + 3 + 2 \times 1. \\
2291 &= 9 + 8 + 7 \times 6 \times 54 + 3 + 2 + 1. \\
2292 &= 9 + 8 + 7 \times 6 \times 54 + 3 \times 2 + 1. \\
2293 &= (9 \times 8 + 7) \times (6 + 5 \times 4 + 3) + 2 \times 1. \\
2294 &= 9 + 8 + 7 \times 6 \times 54 + 3^2 \times 1. \\
2295 &= 9 + 8 + 7 \times 6 \times 54 + 3^2 + 1. \\
2296 &= 9 \times (8 + 7 \times 6) \times 5 + 43 + 2 + 1. \\
2297 &= (98 + 7 \times 6 + 5^4) \times 3 + 2 \times 1. \\
2298 &= 987 + 6 \times 5 \times 43 + 21. \\
2299 &= 9 \times (8 + 7 \times 6) \times 5 + (4 + 3)^2 \times 1. \\
2300 &= 98 + 7 \times 6 + 5 \times 432 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2301 &= 1 \times 2 + 34 \times 5 \times (6 + 7) + 89. \\
2302 &= 1 + (23 + 4) \times 56 + 789. \\
2303 &= 12^3 + 456 + 7 \times (8 + 9). \\
2304 &= 123 + 4^5 + (6 + 7) \times 89. \\
2305 &= 1 + (2 + 3) \times 456 + 7 + 8 + 9. \\
2306 &= 12^3 + 4 \times 5 + (6 + 7 \times 8) \times 9. \\
2307 &= 12 \times 3 \times 45 + 678 + 9. \\
2308 &= 1 \times 23 + 4 \times 567 + 8 + 9. \\
2309 &= 1 + 23 + 4 \times 567 + 8 + 9. \\
2310 &= 1 + 234 \times 5 + 67 \times (8 + 9). \\
2311 &= 12 + 34 \times 5 \times (6 + 7) + 89. \\
2312 &= (1 + 23 + 45 + 67) \times (8 + 9). \\
2313 &= (1 + 2 + 34 \times 5 + 6 + 78) \times 9. \\
2314 &= (1^2 + 3 + 4 + 5 + 6 + 7) \times 89. \\
2315 &= 12 \times (3 \times 45 + 6) + 7 \times 89. \\
2316 &= 12^3 + 4 + 567 + 8 + 9. \\
2317 &= 1 \times 2^3 + 4 \times (567 + 8) + 9. \\
2318 &= 12^3 + 45 + 67 \times 8 + 9. \\
2319 &= 12^3 + 456 + (7 + 8) \times 9. \\
2320 &= 1 + 2 \times 3 + 4 \times (5 + 67) \times 8 + 9. \\
2321 &= 12 \times 3 + 4 \times 567 + 8 + 9. \\
2322 &= 1 \times 2 \times 3 \times 45 \times 6 + 78 \times 9. \\
2323 &= 1 + 2 \times 3 \times 45 \times 6 + 78 \times 9. \\
2324 &= 12 + 3 + 4 \times (567 + 8) + 9. \\
2325 &= 1 + 2 + 3 \times (45 \times 6 + 7 \times 8 \times 9). \\
2326 &= 1 + (2 + 34 \times 5) \times (6 + 7) + 89. \\
2327 &= (12 \times 3 + 4) \times 56 + 78 + 9. \\
2328 &= 12 \times 3 \times 45 + 6 + 78 \times 9. \\
2329 &= (1 \times 2 + 3) \times (45 + 6 + 7) \times 8 + 9. \\
2330 &= 12^3 + 45 \times (6 + 7) + 8 + 9. \\
2331 &= 12^3 + 45 + (6 + 7 \times 8) \times 9. \\
2332 &= 1 \times 23 + 4 \times (567 + 8) + 9. \\
2333 &= 123 + (4 + 5 \times 6) \times (7 \times 8 + 9). \\
2334 &= 12 \times 3 \times 45 + 6 \times 7 \times (8 + 9). \\
2335 &= 1 + 2 \times 3 \times (45 \times 6 + 7 \times (8 + 9)). \\
2336 &= (12 \times 3 + 4) \times 56 + 7 + 89. \\
2337 &= 1 + 23 + 4 \times (5 + 67) \times 8 + 9. \\
2338 &= (1 + 2 + 34 \times 5) \times (6 + 7) + 89. \\
2339 &= 1234 + 5 \times (6 + 7) \times (8 + 9). \\
2340 &= 1^{23} \times 4 \times 567 + 8 \times 9. \\
2341 &= 1^{23} + 4 \times 567 + 8 \times 9. \\
2342 &= 1 + 2 + 3 + 4 \times (567 + 8 + 9). \\
2343 &= 1^2 \times 3 + 4 \times 567 + 8 \times 9. \\
2344 &= 1^2 + 3 + 4 \times 567 + 8 \times 9. \\
2345 &= 1 \times 2 + 3 + 4 \times 567 + 8 \times 9. \\
2346 &= 1 + 2 + 3 + 4 \times 567 + 8 \times 9. \\
2347 &= 1 + 2 \times 3 + 4 \times 567 + 8 \times 9. \\
2348 &= 1 \times 2^3 + 4 \times 567 + 8 \times 9. \\
2349 &= 1 + 2^3 + 4 \times 567 + 8 \times 9. \\
2350 &= 1^{234} + 5 \times 6 \times 78 + 9. \\
2351 &= 12 + 3 + 4 \times (567 + 8 + 9). \\
2352 &= 12^3 + 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
2353 &= 1^{23} \times 4 + 5 \times 6 \times 78 + 9. \\
2354 &= 1^{23} + 4 + 5 \times 6 \times 78 + 9. \\
2355 &= 12 + 3 + 4 \times 567 + 8 \times 9. \\
2356 &= 1^2 \times 3 + 4 + 5 \times 6 \times 78 + 9. \\
2357 &= 1^{23} \times 4 \times 567 + 89. \\
2358 &= 1 \times 2 + 3 + 4 + 5 \times 6 \times 78 + 9. \\
2359 &= 1 \times 2 \times 3 + 4 + 5 \times 6 \times 78 + 9. \\
2360 &= 1 + 2 \times 3 + 4 + 5 \times 6 \times 78 + 9. \\
2361 &= 1 \times 2^3 + 4 + 5 \times 6 \times 78 + 9. \\
2362 &= 1 + 2^3 + 4 + 5 \times 6 \times 78 + 9. \\
2363 &= 1 \times 2 \times 3 + 4 \times 567 + 89. \\
2364 &= 1 + 23 + 4 \times 567 + 8 \times 9. \\
2365 &= 1 \times 2^3 + 4 \times 567 + 89. \\
2366 &= 12^3 + 4 + 5 + 6 + 7 \times 89. \\
2367 &= 1 \times (2 + 3) \times 456 + 78 + 9. \\
2368 &= 12 + 3 + 4 + 5 \times 6 \times 78 + 9. \\
2369 &= 1 \times (2 + 3) \times 4 + 5 \times 6 \times 78 + 9. \\
2370 &= 1 + (2 + 3) \times 4 + 5 \times 6 \times 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2301 &= 98 + 7 \times 6 + 5 \times 432 + 1. \\
2302 &= 9 \times 8 + 76 \times 5 + 43^2 + 1. \\
2303 &= 98 \times 7 + (65 + 4 \times 3) \times 21. \\
2304 &= 9 + 87 + (65 + 4) \times 32 \times 1. \\
2305 &= (9 + 87) \times 6 + 54 \times 32 + 1. \\
2306 &= 98 \times 7 + 6 \times 54 \times (3 + 2) \times 1. \\
2307 &= ((9 + 8) \times 7 \times 6 + 54) \times 3 + 2 + 1. \\
2308 &= 9 \times 8 + 76 + 5 \times 432 \times 1. \\
2309 &= 9 \times 8 + 76 + 5 \times 432 + 1. \\
2310 &= 987 + (6 + 54 + 3) \times 21. \\
2311 &= (987 + 6 + 54 \times 3) \times 2 + 1. \\
2312 &= (9 \times 8 + 7 \times 6) \times 5 \times 4 + 32 \times 1. \\
2313 &= 98 + 7 + (65 + 4) \times 32 \times 1. \\
2314 &= 98 + 7 + (65 + 4) \times 32 + 1. \\
2315 &= 9 + 8 \times (7 \times 6 + 54) \times 3 + 2 \times 1. \\
2316 &= 9 \times 87 + (6 \times 5 + 43) \times 21. \\
2317 &= 9 + 8 + 7 \times 6 \times 54 + 32 \times 1. \\
2318 &= 9 + 8 + 7 \times 6 \times 54 + 32 + 1. \\
2319 &= 9 + 8 \times (7 + 65) \times 4 + 3 + 2 + 1. \\
2320 &= (9 + 8 \times 76 + 543) \times 2 \times 1. \\
2321 &= 9 + 8 + 7 \times 65 + 43^2 \times 1. \\
2322 &= 9 + 8 + 7 \times 65 + 43^2 + 1. \\
2323 &= (9 \times 8 \times 7 + 654 + 3) \times 2 + 1. \\
2324 &= (9 + 8 + 7 + 6 \times 5) \times 43 + 2 \times 1. \\
2325 &= (9 + 8 + 7 + 6 \times 5) \times 43 + 2 + 1. \\
2326 &= 9 + 8 + (765 + 4) \times 3 + 2 \times 1. \\
2327 &= 98 + 76 \times 5 + 43^2 \times 1. \\
2328 &= 98 + 76 \times 5 + 43^2 + 1. \\
2329 &= (9 \times 8 + 7) \times 6 + 5 + 43^2 + 1. \\
2330 &= ((9 + 87) \times 6 + 5) \times 4 + 3 + 2 + 1. \\
2331 &= ((9 + 87) \times 6 + 5) \times 4 + 3 \times 2 + 1. \\
2332 &= 9 + 8 \times 76 + 5 \times (4 + 3)^{(2+1)}. \\
2333 &= 9 + 8 \times 7 + (65 + 43) \times 21. \\
2334 &= 98 + 76 + 5 \times 432 \times 1. \\
2335 &= 98 + 76 + 5 \times 432 + 1. \\
2336 &= 987 + 65 + 4 \times 321. \\
2337 &= 9 + 8 \times (7 + 65) \times 4 + 3 + 21. \\
2338 &= 987 + 6 \times 5 \times (43 + 2) + 1. \\
2339 &= 98 + 76 + 5 \times (432 + 1). \\
2340 &= 9 + 8 \times (76 + 5 \times 43) + 2 + 1. \\
2341 &= 9 \times 8 + 7 \times 6 \times (5 + 4) \times 3 \times 2 + 1. \\
2342 &= 987 + 6 + 5 + 4^3 \times 21. \\
2343 &= 9 \times 87 + 65 \times 4 \times 3 \times 2 \times 1. \\
2344 &= 9 \times 87 + 65 \times 4 \times 3 \times 2 + 1. \\
2345 &= 9 + 8 \times 76 + 54 \times 32 \times 1. \\
2346 &= 9 + 8 \times 76 + 54 \times 32 + 1. \\
2347 &= 9 \times 8 + 7 \times 6 \times 54 + 3 \times 2 + 1. \\
2348 &= 9 + 8 + 7 \times 6 \times 54 + 3 \times 21. \\
2349 &= 9 \times 8 + 7 \times 6 \times 54 + 3^2 \times 1. \\
2350 &= 9 \times 8 + 7 \times 6 \times 54 + 3^2 + 1. \\
2351 &= (9 \times 8 + 7) \times 6 + 5^4 \times 3 + 2 \times 1. \\
2352 &= (9 + 8 + 76 + 5) \times 4 \times 3 \times 2 \times 1. \\
2353 &= (9 + 8 + 76 + 5) \times 4 \times 3 \times 2 + 1. \\
2354 &= 9 + ((87 + 6) \times 5 + 4) \times (3 + 2) \times 1. \\
2355 &= 98 + 7 + 6 \times (54 + 321). \\
2356 &= ((9 + 87) \times 6 + 5) \times 4 + 32 \times 1. \\
2357 &= 9 + 8 + (7 + 6) \times 5 \times 4 \times 3^2 \times 1. \\
2358 &= 9 + 8 \times (76 + 5 \times 43) + 21. \\
2359 &= (98 + 7) \times 6 + 54 \times 32 + 1. \\
2360 &= 98 \times (7 + 6) + 543 \times 2 \times 1. \\
2361 &= 987 + 6 \times 5 + 4^3 \times 21. \\
2362 &= 9 + (87 + 6 + 5) \times 4 \times 3 \times 2 + 1. \\
2363 &= 9 \times 8 + 7 \times (6 \times 54 + 3) + 2 \times 1. \\
2364 &= 9 + 8 + 7 + 65 \times 4 \times 3^2 \times 1. \\
2365 &= 9 + 8 + 7 + 65 \times 4 \times 3^2 + 1. \\
2366 &= 98 + 7 \times 6 \times (5 + 4) \times 3 \times 2 \times 1. \\
2367 &= 987 + 6 \times 5 \times (43 + 2 + 1). \\
2368 &= 9 \times 8 + 7 \times (6 + 5 \times 4^3 + 2) \times 1. \\
2369 &= 9 + 8 + 7 \times (6 + 5 + 4 + 321). \\
2370 &= 9 + 8 + 7 \times (6 + 54 \times 3) \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2371 &= 12^3 + 4 + 567 + 8 \times 9. \\
2372 &= 12 + 3 + 4 \times 567 + 89. \\
2373 &= 12 + 3 \times 4 + 5 \times 6 \times 78 + 9. \\
2374 &= 1 + 2 \times 3 \times 4 + 5 \times 6 \times 78 + 9. \\
2375 &= 1 \times 2345 + 6 + 7 + 8 + 9. \\
2376 &= 12 \times 3 + 4 \times 567 + 8 \times 9. \\
2377 &= 12^3 + 4 \times 5 + 6 + 7 \times 89. \\
2378 &= 1234 + 5 + 67 \times (8 + 9). \\
2379 &= 1 \times 2 + 3 + 4 + 5 \times 6 \times (7 + 8 \times 9). \\
2380 &= 1 \times 23 + 4 \times 567 + 89. \\
2381 &= 1 + 23 + 4 \times 567 + 89. \\
2382 &= 1 + 2^3 \times 4 + 5 \times 6 \times 78 + 9. \\
2383 &= 1^2 \times 34 + 5 \times 6 \times 78 + 9. \\
2384 &= 1^2 + 34 + 5 \times 6 \times 78 + 9. \\
2385 &= 1 \times 2 + 34 + 5 \times 6 \times 78 + 9. \\
2386 &= 1 + 2 + 34 + 5 \times 6 \times 78 + 9. \\
2387 &= 12^3 + 4 + 5 \times (6 \times 7 + 89). \\
2388 &= 12^3 + 4 + 567 + 89. \\
2389 &= 12 \times 3 + 4 + 5 \times 6 \times 78 + 9. \\
2390 &= 1^2 + 4 + 5 \times (6 \times 78 + 9). \\
2391 &= 1 + (2 + 3) \times 4 + 5 \times 6 \times (7 + 8 \times 9). \\
2392 &= 1 \times 23 \times (45 + 6 \times 7 + 8 + 9). \\
2393 &= 12 \times 3 + 4 \times 567 + 89. \\
2394 &= 1 + 2^3 \times 4 \times (5 + 67) + 89. \\
2395 &= 12 + 34 + 5 \times 6 \times 78 + 9. \\
2396 &= 1234 + 5 + (6 + 7) \times 89. \\
2397 &= 1 \times 23 + 4 + 5 \times 6 \times (7 + 8 \times 9). \\
2398 &= 1^2 + 3 \times 4 + 5 \times (6 \times 78 + 9). \\
2399 &= 1 \times 2 + 3 \times 4 + 5 \times (6 \times 78 + 9). \\
2400 &= 12 \times (34 \times 5 + 6 + 7 + 8 + 9). \\
2401 &= 1 \times 23 \times 4 \times (5 + 6 + 7 + 8) + 9. \\
2402 &= 12^3 + 45 + 6 + 7 \times 89. \\
2403 &= 12^3 + (4 + 5) \times 67 + 8 \times 9. \\
2404 &= 1 \times 2345 + 6 \times 7 + 8 + 9. \\
2405 &= 1 + 2345 + 6 \times 7 + 8 + 9. \\
2406 &= 1 \times 2 + 34 + 5 \times 6 \times (7 + 8 \times 9). \\
2407 &= 1 + 2 + 34 + 5 \times 6 \times (7 + 8 \times 9). \\
2408 &= 123 + 4 \times 567 + 8 + 9. \\
2409 &= 1 \times 2 \times 3 \times 45 \times 6 + 789. \\
2410 &= 1 + 2 \times 3 \times 45 \times 6 + 789. \\
2411 &= 12^3 + 4 + 56 + 7 \times 89. \\
2412 &= 1^2 \times 3 \times (4 + 5 + 6 + 789). \\
2413 &= 1^2 + 3 \times (4 + 5 + 6 + 789). \\
2414 &= 1 \times 2 + 3 \times (4 + 5 + 6 + 789). \\
2415 &= 1 \times 2^3 \times 4 \times 56 + 7 \times 89. \\
2416 &= 1 \times 2345 + 6 + 7 \times 8 + 9. \\
2417 &= 1 \times 2 \times 34 + 5 \times 6 \times 78 + 9. \\
2418 &= 1 + 2 \times 34 + 5 \times 6 \times 78 + 9. \\
2419 &= 1 \times 2 + (3 + 4) \times 5 \times 67 + 8 \times 9. \\
2420 &= 12 + 34 \times 56 + 7 \times 8 \times 9. \\
2421 &= (1 + 2) \times (3 + 4 + 5 + 6 + 789). \\
2422 &= 1 + 2 + 34 + 5 \times (6 \times 78 + 9). \\
2423 &= 12^3 + 4 \times 5 + (67 + 8) \times 9. \\
2424 &= 12^3 + 4 + 5 + 678 + 9. \\
2425 &= 12 \times 3 + 4 + 5 \times (6 \times 78 + 9). \\
2426 &= 1 + 2 + 34 \times (56 + 7 + 8) + 9. \\
2427 &= 12^3 + 4 + 5 \times (67 + 8 \times 9). \\
2428 &= 1 + (2 + 3 + 4 \times 5 + 6) \times 78 + 9. \\
2429 &= 1 \times 2345 + 67 + 8 + 9. \\
2430 &= 1 + 2345 + 67 + 8 + 9. \\
2431 &= 1 + 2345 + 6 + 7 + 8 \times 9. \\
2432 &= 1 \times 2 + 3^4 + 5 \times 6 \times 78 + 9. \\
2433 &= 1 + 2 + 3^4 + 5 \times 6 \times 78 + 9. \\
2434 &= (12 + 3 + 4 \times 5) \times 67 + 89. \\
2435 &= 12^3 + 4 \times 5 + 678 + 9. \\
2436 &= 123 + 4 \times (5 + 67) \times 8 + 9. \\
2437 &= 1 + 2 + (3 + 4) \times 5 \times 67 + 89. \\
2438 &= 1 \times 2345 + 6 + 78 + 9. \\
2439 &= 1 + 2345 + 6 + 78 + 9. \\
2440 &= 1 + (2 \times 34 \times 5 + 6) \times 7 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2371 &= 98 + 7 \times 6 \times 54 + 3 + 2 \times 1. \\
2372 &= 9 \times 8 + 7 \times 6 \times 54 + 32 \times 1. \\
2373 &= 9 \times 8 + 7 \times 6 \times 54 + 32 + 1. \\
2374 &= 98 + 7 \times 6 \times 54 + 3^2 - 1. \\
2375 &= 98 + 7 \times 6 \times 54 + 3^2 \times 1. \\
2376 &= 98 + 7 \times 6 \times 54 + 3^2 + 1. \\
2377 &= 9 \times 8 + 7 \times 65 + 43^2 + 1. \\
2378 &= (9 + 8) \times 76 + 543 \times 2 \times 1. \\
2379 &= (9 + 8) \times 76 + 543 \times 2 + 1. \\
2380 &= (9 \times 8 + 7) \times 6 \times 5 + 4 + 3 + 2 + 1. \\
2381 &= (9 \times 8 \times 7 + 6 + 5) \times 4 + 321. \\
2382 &= 9 \times 8 + (765 + 4) \times 3 + 2 + 1. \\
2383 &= 9 \times 8 \times 7 + 6 \times 5 + 43^2 \times 1. \\
2384 &= 9 \times 8 \times 7 + 6 \times 5 + 43^2 + 1. \\
2385 &= 9 + 87 \times 6 + 5 + 43^2 \times 1. \\
2386 &= 9 + 87 \times 6 + 5 + 43^2 + 1. \\
2387 &= 9 \times 8 \times 7 + 6 + 5^4 \times 3 + 2 \times 1. \\
2388 &= 9 \times 8 \times 7 + 6 + 5^4 \times 3 + 2 + 1. \\
2389 &= 98 + 7 \times (6 \times 54 + 3) + 2 \times 1. \\
2390 &= 98 + 7 \times 6 \times 54 + 3 + 21. \\
2391 &= (9 \times 8 + 7) \times 6 \times 5 + 4 \times (3 + 2) + 1. \\
2392 &= 9 \times (87 + 65) + 4(3 + 2) \times 1. \\
2393 &= 98 + 7 \times 6 \times 54 + 3^{(2+1)}. \\
2394 &= (9 + 87 + 6 + 5 + 4 + 3) \times 21. \\
2395 &= 987 + (6 + 5) \times 4 \times 32 \times 1. \\
2396 &= 987 + 65 + 4^3 \times 21. \\
2397 &= (9 \times 87 + 6 + 5 + 4) \times 3 + 2 + 1. \\
2398 &= 98 + 7 \times 6 \times 54 + 32 \times 1. \\
2399 &= 98 + 7 \times 6 \times 54 + 32 + 1. \\
2400 &= 9 \times 8 + (765 + 4) \times 3 + 21. \\
2401 &= 98 + 7 \times (6 \times 54 + 3 + 2) \times 1. \\
2402 &= 98 + 7 \times 65 + 43^2 \times 1. \\
2403 &= 98 + 7 \times 65 + 43^2 + 1. \\
2404 &= (98 + 7 + 6) \times 5 + 43^2 \times 1. \\
2405 &= 9 + 8 \times 7 + 65 \times 4 \times 3^2 \times 1. \\
2406 &= 9 \times 8 \times 7 + 6 + 5^4 \times 3 + 21. \\
2407 &= 98 + (765 + 4) \times 3 + 2 \times 1. \\
2408 &= 9 + 87 \times 6 + 5^4 \times 3 + 2 \times 1. \\
2409 &= 9 + 87 \times 6 + 5^4 \times 3 + 2 + 1. \\
2410 &= 9 + 8 \times (7 + 6) \times 5 \times 4 + 321. \\
2411 &= (98 + 76 \times 5 + 4) \times (3 + 2) + 1. \\
2412 &= 9 \times 8 + (7 + 6) \times 5 \times 4 \times 3^2 \times 1. \\
2413 &= 9 \times 8 + (7 + 6) \times 5 \times 4 \times 3^2 + 1. \\
2414 &= 9 + 8 + 7 \times 6 \times (54 + 3) + 2 + 1. \\
2415 &= (9 \times 87 + 6 + 5 + 4) \times 3 + 21. \\
2416 &= (987 + 6 + 5 \times 43) \times 2 \times 1. \\
2417 &= (987 + 6 + 5 \times 43) \times 2 + 1. \\
2418 &= (9 \times 8) \times 7 + 65 + 43^2 \times 1. \\
2419 &= 9 \times 8 \times 7 + 65 + 43^2 + 1. \\
2420 &= 98 \times 7 + 6 + 54 \times 32 \times 1. \\
2421 &= 98 \times 7 + 6 + 54 \times 32 + 1. \\
2422 &= 9 + (8 \times 7 + 6 + 5) \times 4 \times 3^2 + 1. \\
2423 &= -98 + 7 \times 6 \times 5 \times 4 \times 3 + 2 - 1. \\
2424 &= 9 \times 8 \times 7 + (6 + 54) \times 32 \times 1. \\
2425 &= 9 \times 8 \times 7 + (6 + 54) \times 32 + 1. \\
2426 &= 9 \times 8 \times 7 + 6 \times 5 \times 4^3 + 2 \times 1. \\
2427 &= 9 + 87 \times 6 + 5^4 \times 3 + 21. \\
2428 &= (98 + 7 \times 6) \times 5 + (4 \times 3)^{(2+1)}. \\
2429 &= 98 + 7 \times 6 \times 54 + 3 \times 21. \\
2430 &= (9 + 87) \times 6 + 5 + 43^2 \times 1. \\
2431 &= (9 + 87) \times 6 + 5 + 43^2 + 1. \\
2432 &= 9 + 8 + 7 \times 6 \times (54 + 3) + 21. \\
2433 &= 9 \times (8 \times 7 + 6 \times 5 + 4) \times 3 + 2 + 1. \\
2434 &= (9 \times 8 + 7) \times 6 \times 5 + 43 + 21. \\
2435 &= 9 + 8 \times (7 + 65) + 43^2 + 1. \\
2436 &= 9 + 87 + 65 \times 4 \times 3^2 \times 1. \\
2437 &= 9 + 87 + 65 \times 4 \times 3^2 + 1. \\
2438 &= 98 + (7 + 6) \times 5 \times 4 \times 3^2 \times 1. \\
2439 &= (98 \times 7 + 6 \times 5 \times 4) \times 3 + 21. \\
2440 &= 9 \times 8 + (7 + 6 \times 5) \times (43 + 21).
\end{aligned}$$

Increasing order

$$\begin{aligned}
2441 &= 1 \times 23 \times 4 + 5 \times 6 \times 78 + 9. \\
2442 &= 1 + 23 \times 4 + 5 \times 6 \times 78 + 9. \\
2443 &= (9 + 8) \times 7 \times 6 + 54 \times 32 + 1. \\
2444 &= 1 \times 2345 + 6 \times (7 + 8) + 9. \\
2445 &= 12^3 + 4 + 5 + 6 + 78 \times 9. \\
2446 &= 12 + (3 + 4) \times 5 \times 67 + 89. \\
2447 &= 1 \times 2345 + 6 + 7 + 89. \\
2448 &= 1 + 2345 + 6 + 7 + 89. \\
2449 &= 1 + 2 \times 3 \times (4 + 56 \times 7) + 8 \times 9. \\
2450 &= 1 + (2 + 3 + 4 \times 5 + 6) \times (7 + 8 \times 9). \\
2451 &= (1 + 2) \times 34 + 5 \times 6 \times 78 + 9. \\
2452 &= 12^3 + 4 + 5 \times 6 \times (7 + 8 + 9). \\
2453 &= 1 \times 2 + 3^4 + 5 \times 6 \times (7 + 8 \times 9). \\
2454 &= 1^2 \times 3^4 \times 5 \times 6 + 7 + 8 + 9. \\
2455 &= 1^2 + 3^4 \times 5 \times 6 + 7 + 8 + 9. \\
2456 &= 12^3 + 4 \times 56 + 7 \times 8 \times 9. \\
2457 &= 1 + 2 + 3^4 \times 5 \times 6 + 7 + 8 + 9. \\
2458 &= 1 + 2 \times 3 \times (4 + 5 + 6 \times 7) \times 8 + 9. \\
2459 &= 1 \times 2345 + 6 \times 7 + 8 \times 9. \\
2460 &= 12^3 + 45 + 678 + 9. \\
2461 &= 1 + 2 \times 3 \times (4 \times 5 + 6 \times (7 \times 8 + 9)). \\
2462 &= 12^3 + 4 \times 5 + 6 \times 7 \times (8 + 9). \\
2463 &= 123 + 4 \times 567 + 8 \times 9. \\
2464 &= 12^3 + 4 + 5 \times 6 + 78 \times 9. \\
2465 &= (1 + 2 \times 3)^4 + 5 + 6 \times 7 + 8 + 9. \\
2466 &= 12 + 3^4 \times 5 \times 6 + 7 + 8 + 9. \\
2467 &= 1^2 + 3^4 + 5 \times (6 \times 78 + 9). \\
2468 &= 123 \times (4 + 5 + 6) + 7 \times 89. \\
2469 &= 1 + 2 + 3^4 + 5 \times (6 \times 78 + 9). \\
2470 &= 1 \times 2345 + 6 + 7 \times (8 + 9). \\
2471 &= 12^3 + 4 \times 5 \times 6 + 7 \times 89. \\
2472 &= 12 \times (3 \times 45 + 6 + 7 \times 8 + 9). \\
2473 &= 1 + (23 \times 4 + 5 + 6) \times (7 + 8 + 9). \\
2474 &= 12^3 + 4 \times (5 + 6) + 78 \times 9. \\
2475 &= (12 + 3) \times (4 + 5 + 67 + 89). \\
2476 &= 123 + 4 + 5 \times 6 \times 78 + 9. \\
2477 &= 1 + 2345 + 6 \times 7 + 89. \\
2478 &= 12 + 3^4 + 5 \times (6 \times 78 + 9). \\
2479 &= 1 \times 2 \times 3 + 4 \times (5 + 6) \times 7 \times 8 + 9. \\
2480 &= 123 + 4 \times 567 + 89. \\
2481 &= 12^3 + 45 + 6 + 78 \times 9. \\
2482 &= 1 + 2^3 + 4 \times (5 + 6) \times 7 \times 8 + 9. \\
2483 &= (1 + 2 \times 3)^4 + 5 \times (6 + 7) + 8 + 9. \\
2484 &= 1 \times 2345 + 67 + 8 \times 9. \\
2485 &= 1 + 2345 + 67 + 8 \times 9. \\
2486 &= 1 \times 2345 + 6 + (7 + 8) \times 9. \\
2487 &= 12^3 + 45 + 6 \times 7 \times (8 + 9). \\
2488 &= 1 \times 2^3 \times (4 \times 56 + 78 + 9). \\
2489 &= 1 \times 2345 + 6 \times (7 + 8 + 9). \\
2490 &= 123 \times 4 \times 5 + 6 + 7 + 8 + 9. \\
2491 &= (1 + 2 \times 3)^4 + 5 + 6 + 7 + 8 \times 9. \\
2492 &= (1 + 23 + 4) \times (5 + 67 + 8 + 9). \\
2493 &= 12 \times 3 \times 4 + 5 \times 6 \times 78 + 9. \\
2494 &= 1 \times 2^3 \times 4 \times 56 + 78 \times 9. \\
2495 &= 1 + 2^3 \times 4 \times 56 + 78 \times 9. \\
2496 &= 1^2 + 3^4 \times 5 \times 6 + 7 \times 8 + 9. \\
2497 &= 1 \times 2 + 3^4 \times 5 \times 6 + 7 \times 8 + 9. \\
2498 &= 1 + 2 + 3^4 \times 5 \times 6 + 7 \times 8 + 9. \\
2499 &= (1 + 2 \times 3)^4 + 5 + 6 + 78 + 9. \\
2500 &= (1 + 2)^3 + 4 \times (5 + 6) \times 7 \times 8 + 9. \\
2501 &= 1 \times 2345 + 67 + 89. \\
2502 &= 1 + 2345 + 67 + 89. \\
2503 &= 12 + 34 \times (5 \times (6 + 7) + 8) + 9. \\
2504 &= 1 \times 23 \times (4 + 5 + 6) \times 7 + 89. \\
2505 &= (1 + 2 + 3 + 4 \times 5 + 6) \times 78 + 9. \\
2506 &= (1^2 + 3)^4 + 5 \times (6 \times 7 + 8) \times 9. \\
2507 &= 12 + 3^4 \times 5 \times 6 + 7 \times 8 + 9. \\
2508 &= 12 \times (34 + 56 + 7 \times (8 + 9)). \\
2509 &= 1^2 \times 3^4 \times 5 \times 6 + 7 + 8 \times 9. \\
2510 &= 1^2 + 3^4 \times 5 \times 6 + 7 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2441 &= 9 + (8 + 7) \times 6 \times (5 + 4) \times 3 + 2 \times 1. \\
2442 &= (9 + 8) \times 7 \times 6 + 54 \times 32 \times 1. \\
2443 &= (9 + 8) \times 7 \times 6 + 54 \times 32 + 1. \\
2444 &= 9 \times (8 \times 7 + 6 + 5) \times 4 + 32 \times 1. \\
2445 &= 9 \times 8 \times 7 + 6 \times 5 \times 4^3 + 21. \\
2446 &= 98 + 7 + 65 \times 4 \times 3^2 + 1. \\
2447 &= (9 + 8) \times 7 \times 6 + 5 + (4 \times 3)^{(2+1)}. \\
2448 &= 9 \times 8 \times 7 + 6 \times 54 \times 3 \times 2 \times 1. \\
2449 &= 9 \times 8 \times 7 + 6 \times 54 \times 3 \times 2 + 1. \\
2450 &= 98 + 7 \times (6 + 54 \times 3) \times 2 \times 1. \\
2451 &= 98 + 7 \times (6 + 54 \times 3) \times 2 + 1. \\
2452 &= 98 \times (7 + 6 + 5 + 4 + 3) + 2 \times 1. \\
2453 &= 98 \times (7 + 6 + 5 + 4 + 3) + 2 + 1. \\
2454 &= (9 + 87) \times 6 + 5^4 \times 3 + 2 + 1. \\
2455 &= (9 \times 8 + 7) \times 6 \times 5 + 4^3 + 21. \\
2456 &= (9 \times 8 + 7) \times 6 \times 5 + 43 \times 2 \times 1. \\
2457 &= (9 + 8 + 7 + 6 + 5 + 4) \times 3 \times 21. \\
2458 &= 987 + 6 \times 5 \times (4 + 3)^2 + 1. \\
2459 &= (9 + 8) \times 7 + 65 \times 4 \times 3^2 \times 1. \\
2460 &= (9 + 8) \times 7 + 65 \times 4 \times 3^2 + 1. \\
2461 &= 9 \times 8 + (7 + 6 \times 5) \times 4^3 + 21. \\
2462 &= 9 \times (87 + 6) + 5 \times (4 + 321). \\
2463 &= (9 + 8 + 7) \times 65 + 43 \times 21. \\
2464 &= 9 + (8 + 7 \times (65 + 4)) \times (3 + 2) \times 1. \\
2465 &= (9 + 87 \times 6 + 5) \times 4 + 321. \\
2466 &= 9 + 8 \times (7 + 65 \times 4) + 321. \\
2467 &= 9 + (8 \times 76 + 5) \times 4 + 3 \times 2 \times 1. \\
2468 &= 9 \times 8 \times 7 + 654 \times 3 + 2 \times 1. \\
2469 &= 9 \times 8 \times 7 + 654 \times 3 + 2 + 1. \\
2470 &= (98 \times 7 + 6 + 543) \times 2 \times 1. \\
2471 &= 9 + 8 \times 76 + 5 + 43^2 \times 1. \\
2472 &= 9 + 8 \times 76 + 5 + 43^2 + 1. \\
2473 &= 9 + 8 \times 7 \times (6 + 5 + 4 \times 3 + 21). \\
2474 &= 98 \times 7 + 6 + 54 \times (32 + 1). \\
2475 &= 9 + 8 \times 7 \times (6 + 5) + 43^2 + 1. \\
2476 &= 9 + (87 + 6 \times 54) \times 3 \times 2 + 1. \\
2477 &= 98 \times (7 + 6 + 5 + 4) + 321. \\
2478 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3 + 2 \times 1. \\
2479 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3 \times 2 \times 1. \\
2480 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3 \times 2 + 1. \\
2481 &= 9 + 8 \times (76 + (5 + 4) \times 3) \times (2 + 1). \\
2482 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3^2 \times 1. \\
2483 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3^2 + 1. \\
2484 &= (98 + 7) \times 6 + 5 + 43^2 \times 1. \\
2485 &= 9 + (8 \times 76 + 5) \times 4 + 3 + 21. \\
2486 &= ((9 \times 8) \times 7 + 6 \times 54) \times 3 + 2 \times 1. \\
2487 &= 9 \times 8 \times 7 + 654 \times 3 + 21. \\
2488 &= 9 \times 8 + 7 \times (65 + 4) \times (3 + 2) + 1. \\
2489 &= (9 + 8) \times 76 + (54 + 3) \times 21. \\
2490 &= (9 + 8 \times 76 + 5^4 + 3) \times 2 \times 1. \\
2491 &= (9 + 8 \times 76 + 5^4 + 3) \times 2 + 1. \\
2492 &= (9 + 8 + 7 + 65) \times (4 + 3 + 21). \\
2493 &= (9 + 8 \times 76 + 5) \times 4 + 3 + 2 \times 1. \\
2494 &= 9 + 8 \times 76 + 5^4 \times 3 + 2 \times 1. \\
2495 &= 9 + 8 \times 76 + 5^4 \times 3 + 2 + 1. \\
2496 &= 9 + 8 + 7 \times 6 \times (54 + 3 + 2) + 1. \\
2497 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3 + 21. \\
2498 &= (9 \times 8 + 7) \times 6 \times 5 + 4 \times 32 \times 1. \\
2499 &= 987 + 6 \times (5 + 4 + 3) \times 21. \\
2500 &= (987 + 65 \times 4 + 3) \times 2 \times 1. \\
2501 &= (987 + 65 \times 4 + 3) \times 2 + 1. \\
2502 &= 9 \times (8 + 7 \times 6) \times 5 + 4 \times 3 \times 21. \\
2503 &= (9 + 87) \times (6 + 5 \times 4) + 3 \times 2 + 1. \\
2504 &= 9 \times 8 + (7 + 65 + 4) \times 32 \times 1. \\
2505 &= 9 + 8 \times 7 \times 6 + 5 \times 432 \times 1. \\
2506 &= 9 + 8 \times 7 \times 6 + 5 \times 432 + 1. \\
2507 &= 9 + 8 \times (76 + 5) + 43^2 + 1. \\
2508 &= (98 + 7) \times 6 + 5^4 \times 3 + 2 + 1. \\
2509 &= 9 + 8 + 7 \times (6 \times 54 + 32) \times 1. \\
2510 &= 9 + 876 + 5 \times (4 + 321).
\end{aligned}$$

Increasing order

$$\begin{aligned}
2511 &= 1 \times 2 + 3^4 \times 5 \times 6 + 7 + 8 \times 9. \\
2512 &= 1 + 2 \times 3^4 + 5 \times 6 \times 78 + 9. \\
2513 &= 12 \times (3 \times 45 + 67) + 89. \\
2514 &= 12 \times 34 \times 5 + 6 \times (7 + 8 \times 9). \\
2515 &= 1 + (2 + 3^4) \times 5 \times 6 + 7 + 8 + 9. \\
2516 &= (12 \times 3 + 45 + 67) \times (8 + 9). \\
2517 &= 12 \times 34 \times 5 + 6 \times 78 + 9. \\
2518 &= 1^2 + 3^4 \times 5 \times 6 + 78 + 9. \\
2519 &= 123 \times 4 \times 5 + 6 \times 7 + 8 + 9. \\
2520 &= 1 + 2 + 3^4 \times 5 \times 6 + 78 + 9. \\
2521 &= 12 + 3^4 \times 5 \times 6 + 7 + 8 \times 9. \\
2522 &= 1 \times 2 + 3 \times (45 + 6 + 789). \\
2523 &= 1 + 2 + 3 \times (45 + 6 + 789). \\
2524 &= 1 \times 2^3 + 4 \times (5 \times 6 + 7) \times (8 + 9). \\
2525 &= 12 \times (3 + 4 \times 5 + 6) \times 7 + 89. \\
2526 &= 1^2 \times 3^4 \times 5 \times 6 + 7 + 89. \\
2527 &= 1^2 \times 34 \times 56 + 7 \times 89. \\
2528 &= 1^2 + 34 \times 56 + 7 \times 89. \\
2529 &= 1 \times 2 + 34 \times 56 + 7 \times 89. \\
2530 &= 1 + 2 + 34 \times 56 + 7 \times 89. \\
2531 &= 123 \times 4 \times 5 + 6 + 7 \times 8 + 9. \\
2532 &= 12^3 + 4 + 5 + 6 + 789. \\
2533 &= 1 \times 2 \times 34 \times (5 \times 6 + 7) + 8 + 9. \\
2534 &= 1 \times 2345 + (6 + 7 + 8) \times 9. \\
2535 &= 1 + 2345 + (6 + 7 + 8) \times 9. \\
2536 &= (1 + 2 \times 3)^4 + 56 + 7 + 8 \times 9. \\
2537 &= 1^2 \times 3 \times 4 \times 5 \times 6 \times 7 + 8 + 9. \\
2538 &= 12 + 3^4 \times 5 \times 6 + 7 + 89. \\
2539 &= 12 + 34 \times 56 + 7 \times 89. \\
2540 &= 1 + 2 + 3 \times 4 \times 5 \times 6 \times 7 + 8 + 9. \\
2541 &= 12 + (345 + 6) \times 7 + 8 \times 9. \\
2542 &= 1 \times 2 \times 3 + 4 \times (5 + 6 + 7 \times 89). \\
2543 &= 12^3 + 4 \times 5 + 6 + 789. \\
2544 &= 123 \times 4 \times 5 + 67 + 8 + 9. \\
2545 &= 123 \times 4 \times 5 + 6 + 7 + 8 \times 9. \\
2546 &= 1^2 \times (345 + 6) \times 7 + 89. \\
2547 &= 1^2 \times 3 \times (4 + 56 + 789). \\
2548 &= 1 \times 2 + (345 + 6) \times 7 + 89. \\
2549 &= 12 + 3 \times 4 \times 5 \times 6 \times 7 + 8 + 9. \\
2550 &= 12^3 + 4 \times 5 \times 6 + 78 + 9. \\
2551 &= 12^3 + 4 + 5 \times 6 + 789. \\
2552 &= 1 + (2^3 \times 4 + 5) \times 67 + 8 \times 9. \\
2553 &= 123 \times 4 \times 5 + 6 + 78 + 9. \\
2554 &= 1 + 23 \times (4 + 5 + 6 + 7 + 89). \\
2555 &= (12 + 3 + 4) \times (56 + 78) + 9. \\
2556 &= (1 + 2) \times (3 + 4 + 56 + 789). \\
2557 &= (12 \times 34 + 5) \times 6 + 7 + 8 \times 9. \\
2558 &= 12 + (345 + 6) \times 7 + 89. \\
2559 &= 12 + 3 \times (4 + 56 + 789). \\
2560 &= 1 + 23 + 4 \times (5 + 6 + 7 \times 89). \\
2561 &= 12^3 + 4 \times (5 + 6) + 789. \\
2562 &= 123 \times 4 \times 5 + 6 + 7 + 89. \\
2563 &= 1 + 2 \times 3 + 4 \times (567 + 8 \times 9). \\
2564 &= 1 \times 2^3 + 4 \times (567 + 8 \times 9). \\
2565 &= (12 \times 34 + 5) \times 6 + 78 + 9. \\
2566 &= 1 \times 2345 + (6 + 7) \times (8 + 9). \\
2567 &= 1 + 2345 + (6 + 7) \times (8 + 9). \\
2568 &= 12^3 + 45 + 6 + 789. \\
2569 &= 1 + 2 \times 3 \times 4 \times (5 + 6 + 7 + 89). \\
2570 &= 1 + 2^3 \times 4 \times (5 + 67 + 8) + 9. \\
2571 &= 12^3 + (4 + 5) \times 6 + 789. \\
2572 &= 1 + 2 \times 3^4 \times (5 + 6) + 789. \\
2573 &= 123 \times 4 \times 5 + (6 + 7) \times 8 + 9. \\
2574 &= 123 \times 4 \times 5 + 6 \times 7 + 8 \times 9. \\
2575 &= 12^3 + 4 \times 56 + 7 \times 89. \\
2576 &= 1 \times 2 + 345 \times 6 + 7 \times 8 \times 9. \\
2577 &= 1 + 2 + 345 \times 6 + 7 \times 8 \times 9. \\
2578 &= 1234 + 56 \times (7 + 8 + 9). \\
2579 &= 1 \times 23 + 4 \times (567 + 8 \times 9). \\
2580 &= 1 + 23 + 4 \times (567 + 8 \times 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2511 &= 9 \times 87 + 6 \times (5 + 4) \times 32 \times 1. \\
2512 &= 9 \times 87 + 6 \times (5 + 4) \times 32 + 1. \\
2513 &= 9 + 8 \times 76 + 5^4 \times 3 + 21. \\
2514 &= 9 + 876 + 543 \times (2 + 1). \\
2515 &= ((9 + 8) \times 7 \times 6 + 543) \times 2 + 1. \\
2516 &= (9 + 8) \times (76 + 5 + 4 + 3 \times 21). \\
2517 &= 9 \times 87 + 6 + 54 \times 32 \times 1. \\
2518 &= 9 \times 87 + 6 + 54 \times 32 + 1. \\
2519 &= (9 \times 8 + 76) \times (5 + 4 \times 3) + 2 + 1. \\
2520 &= (9 + 8 \times 76 + 5) \times 4 + 32 \times 1. \\
2521 &= (9 + 8 \times 76 + 5) \times 4 + 32 + 1. \\
2522 &= (9 + 8) \times (7 + 6 \times 5) \times 4 + 3 + 2 + 1. \\
2523 &= (9 + 8) \times (7 + 6 \times 5) \times 4 + 3 \times 2 + 1. \\
2524 &= 9 + (8 \times 76 + 5) \times 4 + 3 \times 21. \\
2525 &= (9 \times 8 + 765 + 4) \times 3 + 2 \times 1. \\
2526 &= (9 \times 8 + 765 + 4) \times 3 + 2 + 1. \\
2527 &= 98 + 7 \times (6 + 5 \times 4 + 321). \\
2528 &= (9 + 8 + 7 \times 6 + 5 \times 4) \times 32 \times 1. \\
2529 &= (9 + 8 + 7 \times 6 + 5 \times 4) \times 32 + 1. \\
2530 &= 98 + (7 + 65 + 4) \times 32 \times 1. \\
2531 &= (9 + 8) \times (76 + 54) + 321. \\
2532 &= (9 \times 87 + 6 + 54) \times 3 + 2 + 1. \\
2533 &= (98 + 7 \times 65) \times 4 + 321. \\
2534 &= 98 \times (7 + 6) + 5 \times 4 \times 3 \times 21. \\
2535 &= 9 + 87 \times (6 + 5 \times 4 + 3) + 2 + 1. \\
2536 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 3 \times 21. \\
2537 &= 9 + 8 + 7 \times (6 + 54) \times 3 \times 2 \times 1. \\
2538 &= 9 \times (8 + 7) \times 6 + 54 \times 32 \times 1. \\
2539 &= 9 + 8 + 7 \times 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
2540 &= 9 + 8 + 7 \times 6 \times 5 \times 4 \times 3 + 2 + 1. \\
2541 &= (98 + 7 + 6) \times 5 \times 4 + 321. \\
2542 &= (9 + 8 + (7 + 6) \times 5) \times (4 + 3^{(2+1)}). \\
2543 &= (9 + 8) \times (7 + 6 \times 5) \times 4 + 3^{(2+1)}. \\
2544 &= (9 \times 8 + 765 + 4) \times 3 + 21. \\
2545 &= ((98 + 7) \times 6 + 5) \times 4 + 3 + 2 \times 1. \\
2546 &= 98 \times 7 + 6 + 5 + 43^2 \times 1. \\
2547 &= 987 + 65 \times 4 \times 3 \times 2 \times 1. \\
2548 &= 987 + 65 \times 4 \times 3 \times 2 + 1. \\
2549 &= (98 + 7 \times 6) \times 5 + 43^2 \times 1. \\
2550 &= (9 \times 87 + 6 + 54) \times 3 + 21. \\
2551 &= (9 + 8 \times 76 + 5) \times 4 + 3 \times 21. \\
2552 &= (9 + 8) \times 76 + 5 \times 4 \times 3 \times 21. \\
2553 &= 9 + 87 \times (6 + 5 \times 4 + 3) + 21. \\
2554 &= (9 \times (8 + 7) + 6) \times 5 + 43^2 \times 1. \\
2555 &= (9 + 8 \times 7) \times 6 + 5 \times (432 + 1). \\
2556 &= 9 + (8 + 7 \times 6 \times 5 \times 4) \times 3 + 2 + 1. \\
2557 &= (9 + 8 + 7 + 65 \times 4) \times 3^2 + 1. \\
2558 &= 9 + 8 + 7 \times 6 \times 5 \times 4 \times 3 + 21. \\
2559 &= (9 \times 87 + 65 + 4) \times 3 + 2 + 1. \\
2560 &= (9 + 8 \times 7 + 6 + 5 + 4) \times 32 \times 1. \\
2561 &= (9 + 8 \times 7 + 6 + 5 + 4) \times 32 + 1. \\
2562 &= 987 + (6 + 5 + 4^3) \times 21. \\
2563 &= 98 \times (7 + 6) + 5 + 4 \times 321. \\
2564 &= (9 \times 8 \times 7 + 6) \times 5 + 4 \times 3 + 2 \times 1. \\
2565 &= 98 \times 7 + 6 \times 5 + 43^2 \times 1. \\
2566 &= 98 \times 7 + 6 \times 5 + 43^2 + 1. \\
2567 &= (9 + 8) \times (7 + 6 \times 5 \times 4 + 3 + 21). \\
2568 &= (9 + 87 + 6 + 5) \times 4 \times 3 \times 2 \times 1. \\
2569 &= 98 \times 7 + 6 + 5^4 \times 3 + 2 \times 1. \\
2570 &= 98 \times 7 + 6 + 5^4 \times 3 + 2 + 1. \\
2571 &= 9 \times 87 + 6 + 54 \times (32 + 1). \\
2572 &= ((98 + 7) \times 6 + 5) \times 4 + 32 \times 1. \\
2573 &= ((98 + 7) \times 6 + 5) \times 4 + 32 + 1. \\
2574 &= (98 + 7 + 6 \times 54) \times 3 \times 2 \times 1. \\
2575 &= 9 \times (8 + 7 \times 6) \times 5 + 4 + 321. \\
2576 &= 98 + 7 \times 6 \times (54 + 3 + 2) \times 1. \\
2577 &= (9 \times 87 + 65 + 4) \times 3 + 21. \\
2578 &= (9 \times 8 \times 7 + 6) \times 5 + 4 + 3 + 21. \\
2579 &= 9 + 8 + 7 \times 6 \times (54 + 3 \times 2 + 1). \\
2580 &= 9 \times 8 \times (7 + 6 + 5) + 4 \times 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2581 &= 1 \times 2^3 \times 4 \times 56 + 789. \\
2582 &= 1 + 2^3 \times 4 \times 56 + 789. \\
2583 &= 1 \times 234 + 5 \times 6 \times 78 + 9. \\
2584 &= 1 + 234 + 5 \times 6 \times 78 + 9. \\
2585 &= 12 \times 34 \times 5 + 67 \times 8 + 9. \\
2586 &= 12 + 345 \times 6 + 7 \times 8 \times 9. \\
2587 &= 1 + (2 + 345) \times 6 + 7 \times 8 \times 9. \\
2588 &= 1 \times 2 \times 34 \times (5 \times 6 + 7) + 8 \times 9. \\
2589 &= (12 + 3) \times 4 \times 5 \times 6 + 789. \\
2590 &= 12 \times 3 + 4 + 5 \times (6 + 7 \times 8 \times 9). \\
2591 &= 123 \times 4 \times 5 + 6 \times 7 + 89. \\
2592 &= 1^2 \times 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
2593 &= 1^2 + 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
2594 &= 1 \times 2 + 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
2595 &= 1 + 2 + 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
2596 &= 12 + 34 \times (5 + 6 + 7 \times 8 + 9). \\
2597 &= (12 \times 34 + 5) \times 6 + 7 \times (8 + 9). \\
2598 &= 1 \times 234 \times (5 + 6) + 7 + 8 + 9. \\
2599 &= 123 \times 4 \times 5 + 67 + 8 \times 9. \\
2600 &= (12 + 34) \times 56 + 7 + 8 + 9. \\
2601 &= 123 \times 4 \times 5 + 6 + (7 + 8) \times 9. \\
2602 &= 1 + 2 \times 3 \times 4 \times (5 \times 6 + 78) + 9. \\
2603 &= 1 \times 2 + 3 \times (4 + 5 + 6 \times 7) \times (8 + 9). \\
2604 &= 12 + 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
2605 &= 1 \times 2 \times 34 \times (5 \times 6 + 7) + 89. \\
2606 &= 1^2 \times 34 \times 56 + 78 \times 9. \\
2607 &= 1^2 + 34 \times 56 + 78 \times 9. \\
2608 &= 1 \times 2 + 34 \times 56 + 78 \times 9. \\
2609 &= 1 + 2 + 34 \times 56 + 78 \times 9. \\
2610 &= 1^2 + 3 \times 4 \times 5 \times 6 \times 7 + 89. \\
2611 &= 1 \times 2 + 3 \times 4 \times 5 \times 6 \times 7 + 89. \\
2612 &= 1 + 2 + 3 \times 4 \times 5 \times 6 \times 7 + 89. \\
2613 &= (1^2 + 3) \times 456 + 789. \\
2614 &= 1^{23} \times 4 + 5 \times 6 \times (78 + 9). \\
2615 &= 1^2 \times 3 + 4 \times (5 \times 6 + 7 \times 89). \\
2616 &= 123 \times 4 \times 5 + 67 + 89. \\
2617 &= 1^2 \times 3 + 4 + 5 \times 6 \times (78 + 9). \\
2618 &= 12 + 34 \times 56 + 78 \times 9. \\
2619 &= 1 \times 234 + 5 \times (6 \times 78 + 9). \\
2620 &= 1 + 234 + 5 \times (6 \times 78 + 9). \\
2621 &= 12^3 + 45 \times 6 + 7 \times 89. \\
2622 &= 1^2 \times 3 \times 4 + 5 \times 6 \times (78 + 9). \\
2623 &= 1 + 2^3 + 4 + 5 \times 6 \times (78 + 9). \\
2624 &= 1 \times 2 + 3 \times 4 + 5 \times 6 \times (78 + 9). \\
2625 &= 12 \times 3 \times (45 + 6) + 789. \\
2626 &= 1 \times 2 \times 3 + 4 \times 5 \times (6 \times 7 + 89). \\
2627 &= 1 + 2 \times 3 + 4 \times 5 \times (6 \times 7 + 89). \\
2628 &= 1^2 + 3 + 4 \times (567 + 89). \\
2629 &= 12 + 3 + 4 + 5 \times 6 \times (78 + 9). \\
2630 &= (12 + 345 + 6) \times 7 + 89. \\
2631 &= 1 + 2 \times 3 + 4 \times (567 + 89). \\
2632 &= 1 \times 2 + (34 + 5) \times 67 + 8 + 9. \\
2633 &= 12 \times (34 \times 5 + 6 \times 7) + 89. \\
2634 &= 123 \times (4 + 5 + 6) + 789. \\
2635 &= 12 + 3 + 4 \times 5 \times (6 \times 7 + 89). \\
2636 &= 1 + 23 + 4 \times (5 \times 6 + 7 \times 89). \\
2637 &= 12^3 + 4 \times 5 \times 6 + 789. \\
2638 &= 1 + 23 + 4 + 5 \times 6 \times (78 + 9). \\
2639 &= 1 \times 234 \times (5 + 6) + 7 \times 8 + 9. \\
2640 &= 12^3 + 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
2641 &= (12 + 34) \times 56 + 7 \times 8 + 9. \\
2642 &= 12 + (34 + 5) \times 67 + 8 + 9. \\
2643 &= 1 + 2^3 \times 4 + 5 \times 6 \times (78 + 9). \\
2644 &= 1^2 \times 34 + 5 \times 6 \times (78 + 9). \\
2645 &= 1^2 + 34 + 5 \times 6 \times (78 + 9). \\
2646 &= (12 + 345) \times 6 + 7 \times 8 \times 9. \\
2647 &= 1 \times 23 + 4 \times (567 + 89). \\
2648 &= 1 + 23 + 4 \times (567 + 89). \\
2649 &= 1 + 23 \times (45 + 67) + 8 \times 9. \\
2650 &= 12 \times 3 + 4 + 5 \times 6 \times (78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2581 &= (9 + 8) \times 76 + 5 + 4 \times 321. \\
2582 &= 98 \times 7 + (6 + 5^4) \times 3 + 2 + 1. \\
2583 &= (98 + 7 + 6 + 5 + 4 + 3) \times 21. \\
2584 &= (9 + 8 + 7) \times 65 + 4(3 + 2) \times 1. \\
2585 &= 9 + 8 \times 7 \times (6 + 5 + 4 \times 3) \times 2 \times 1. \\
2586 &= (9 \times 8 \times 7 + 6) \times 5 + 4 + 32 \times 1. \\
2587 &= (9 \times 8 \times 7 + 6) \times 5 + 4 \times 3^2 + 1. \\
2588 &= 98 \times 7 + 6 + 5^4 \times 3 + 21. \\
2589 &= (9 \times 8 + 76) \times 5 + 43^2 \times 1. \\
2590 &= (9 \times 8 + 76) \times 5 + 43^2 + 1. \\
2591 &= (9 + 8) \times 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
2592 &= 9 + 8 \times 7 \times 6 \times 5 + 43 \times 21. \\
2593 &= 9 \times 8 + 7 \times (6 + 54) \times 3 \times 2 + 1. \\
2594 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
2595 &= (9 \times 8 \times 7 + 6) \times 5 + 43 + 2 \times 1. \\
2596 &= (9 \times 8 \times 7 + 6) \times 5 + 43 + 2 + 1. \\
2597 &= (9 \times 8 \times 7 + 65) \times 4 + 321. \\
2598 &= (9 + 8) \times 7 \times 6 + (5^4 + 3) \times (2 + 1). \\
2599 &= (9 \times 8 \times 7 + 6) \times 5 + (4 + 3)^2 \times 1. \\
2600 &= 98 \times 7 + 65 + 43^2 \times 1. \\
2601 &= 98 \times 7 + 65 + 43^2 + 1. \\
2602 &= 9 + 8 + 76 \times (5 + 4 \times 3) \times 2 + 1. \\
2603 &= (98 + 765 + 4) \times 3 + 2 \times 1. \\
2604 &= 9 + 8 + 7 + 6 \times 5 \times 43 \times 2 \times 1. \\
2605 &= 9 + 8 + 7 + 6 \times 5 \times 43 \times 2 + 1. \\
2606 &= 9 + 8 + 7 \times 6 \times 54 + 321. \\
2607 &= 987 + 6 \times 54 \times (3 + 2) \times 1. \\
2608 &= 98 \times 7 + 6 \times 5 \times 4^3 + 2 \times 1. \\
2609 &= 98 \times 7 + 6 \times 5 \times 4^3 + 2 + 1. \\
2610 &= (9 + 8) \times 7 \times 6 + 5^4 \times 3 + 21. \\
2611 &= 9 \times (8 + 7 \times 6) + 5 \times 432 + 1. \\
2612 &= 987 + 65 \times (4 \times 3 \times 2 + 1). \\
2613 &= 9 + 876 + 54 \times 32 \times 1. \\
2614 &= 9 + 876 + 54 \times 32 + 1. \\
2615 &= 9 + 8 \times 7 + 6 \times 5 \times (4^3 + 21). \\
2616 &= (9 \times 8 + 7 + 6 \times 5) \times 4 \times 3 \times 2 \times 1. \\
2617 &= (9 \times 8 \times 7 + 6) \times 5 + 4 + 3 \times 21. \\
2618 &= 987 + 6 + 5 \times (4 + 321). \\
2619 &= 98 + 7 \times (6 + 54) \times 3 \times 2 + 1. \\
2620 &= 98 + 7 \times 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
2621 &= 98 + 7 \times 6 \times 5 \times 4 \times 3 + 2 + 1. \\
2622 &= (98 + 765 + 4) \times 3 + 21. \\
2623 &= 98 \times (7 + 6) + 5 + 4^3 \times 21. \\
2624 &= 9 \times (8 \times 7 + 6 \times 5) + 43^2 + 1. \\
2625 &= 987 + (6 + 5 \times 4) \times 3 \times 21. \\
2626 &= 9 + (8 \times (7 + 6) + 5) \times 4 \times 3 \times 2 + 1. \\
2627 &= 98 \times 7 + 6 \times 5 \times 4^3 + 21. \\
2628 &= 9 + 87 \times 6 \times 5 + 4 + 3 + 2 \times 1. \\
2629 &= 9 + 87 \times 6 \times 5 + 4 + 3 + 2 + 1. \\
2630 &= 98 \times 7 + 6 \times 54 \times 3 \times 2 \times 1. \\
2631 &= 98 \times 7 + 6 \times 54 \times 3 \times 2 + 1. \\
2632 &= 9 + 8 + 765 + 43^2 + 1. \\
2633 &= 9 + 87 \times 6 \times 5 + 4 \times 3 + 2 \times 1. \\
2634 &= 9 + 87 \times 6 \times 5 + 4 \times 3 + 2 + 1. \\
2635 &= (9 \times 8 + 7) \times 6 + 5 \times 432 + 1. \\
2636 &= (9 \times 8 \times 7 + 6) \times 5 + 43 \times 2 \times 1. \\
2637 &= (9 \times 8 \times 7 + 6) \times 5 + 43 \times 2 + 1. \\
2638 &= 9 \times (8 + (7 + 6) \times 5) \times 4 + 3^2 + 1. \\
2639 &= 98 + 7 \times 6 \times 5 \times 4 \times 3 + 21. \\
2640 &= 9 + 87 \times 6 \times 5 + 4 \times (3 + 2) + 1. \\
2641 &= (9 + 8) \times 76 + 5 + 4^3 \times 21. \\
2642 &= 9 + 8 + 7 \times (6 \times (5 + 4) + 321). \\
2643 &= 9 + 87 \times 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
2644 &= 9 + 87 \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
2645 &= 9 + 8 \times 7 + 6 \times 5 \times 43 \times 2 \times 1. \\
2646 &= 9 + 8 \times 7 + 6 \times 5 \times 43 \times 2 + 1. \\
2647 &= 9 + 87 \times 6 \times 5 + 4 + 3 + 21. \\
2648 &= (9 + 8) \times (7 \times 6 + 5) + 43^2 \times 1. \\
2649 &= 9 \times 8 \times 7 + 65 \times (4 \times 3 + 21). \\
2650 &= 98 \times 7 + 654 \times 3 + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2651 &= (1 + 2)^3 + 4 \times (567 + 89). \\
2652 &= (1 + 2 + 3 + 4 \times 5) \times (6 + 7 + 89). \\
2653 &= 1 \times 234 \times (5 + 6) + 7 + 8 \times 9. \\
2654 &= 12^3 + 4 \times 56 + 78 \times 9. \\
2655 &= (12 + 34) \times 56 + 7 + 8 \times 9. \\
2656 &= 12 + 34 + 5 \times 6 \times (78 + 9). \\
2657 &= 12^3 + 4 \times 5 \times 6 \times 7 + 89. \\
2658 &= (1 + 2^3 \times 45 + 6) \times 7 + 89. \\
2659 &= 123 + 4 \times (5 + 6 + 7 \times 89). \\
2660 &= 12 \times 3 + 4 \times (567 + 89). \\
2661 &= 12 \times 3^4 + 5 \times 6 \times 7 \times 8 + 9. \\
2662 &= 1 + 234 \times (5 + 6) + 78 + 9. \\
2663 &= 1 \times 2 \times 34 \times 5 \times 6 + 7 \times 89. \\
2664 &= 1 + 2 \times 34 \times 5 \times 6 + 7 \times 89. \\
2665 &= 1 + 2^3 \times 45 \times 6 + 7 \times 8 \times 9. \\
2666 &= 1 + 23 \times (45 + 67) + 89. \\
2667 &= 1 + 2 + 3 + (4 + 5 \times 6) \times 78 + 9. \\
2668 &= 1 \times 23 \times (45 + 6 + 7 \times 8 + 9). \\
2669 &= 12 \times 34 \times 5 + 6 + 7 \times 89. \\
2670 &= 1 \times 234 \times (5 + 6) + 7 + 89. \\
2671 &= 1 + 234 \times (5 + 6) + 7 + 89. \\
2672 &= (12 + 34) \times 56 + 7 + 89. \\
2673 &= 12^3 + 4 + 5 + (6 + 7) \times 8 \times 9. \\
2674 &= 1 + (2 + 3 + 4) \times (5 \times 6 + 7) \times 8 + 9. \\
2675 &= (1 \times 2 + 3) \times (456 + 7 + 8 \times 9). \\
2676 &= 12 + 3 + (4 + 5 \times 6) \times 78 + 9. \\
2677 &= 123 + 4 + 5 \times (6 + 7 \times 8 \times 9). \\
2678 &= 1 \times 23 + 45 \times (6 \times 7 + 8 + 9). \\
2679 &= 123 + 4 \times (567 + 8 \times 9). \\
2680 &= 1^2 + 3 \times (45 \times 6 + 7 \times 89). \\
2681 &= 1 \times 2 + 3 \times (45 \times 6 + 7 \times 89). \\
2682 &= 1 + 2 + 3 \times (45 \times 6 + 7 \times 89). \\
2683 &= 1 \times 2 \times (3 + 4^5) + 6 + 7 \times 89. \\
2684 &= 1 \times 23 + (4 + 5 \times 6) \times 78 + 9. \\
2685 &= 1 + 23 + (4 + 5 \times 6) \times 78 + 9. \\
2686 &= 1^2 + (34 + 5) \times 67 + 8 \times 9. \\
2687 &= 1 \times 2 + (34 + 5) \times 67 + 8 \times 9. \\
2688 &= 12^3 + 456 + 7 \times 8 \times 9. \\
2689 &= 1 \times (2 + 3) \times 4 \times (56 + 78) + 9. \\
2690 &= 1 \times 2345 + 6 \times 7 \times 8 + 9. \\
2691 &= 1 + 2345 + 6 \times 7 \times 8 + 9. \\
2692 &= 1^2 + 3^4 + 5 \times 6 \times (78 + 9). \\
2693 &= 1^2 \times 34 \times 56 + 789. \\
2694 &= 1^2 + 34 \times 56 + 789. \\
2695 &= 1 \times 2 + 34 \times 56 + 789. \\
2696 &= 1^2 \times 3 + 4 + 5 \times 67 \times 8 + 9. \\
2697 &= 1^2 + 3 + 4 + 5 \times 67 \times 8 + 9. \\
2698 &= 1 \times 2 + 3 + 4 + 5 \times 67 \times 8 + 9. \\
2699 &= 1 + 2 + 3 + 4 + 5 \times 67 \times 8 + 9. \\
2700 &= 12^3 + 45 \times 6 + 78 \times 9. \\
2701 &= 1 \times 2^3 + 4 + 5 \times 67 \times 8 + 9. \\
2702 &= 1 + 2^3 + 4 + 5 \times 67 \times 8 + 9. \\
2703 &= 1 \times 2 + 3 \times 4 + 5 \times 67 \times 8 + 9. \\
2704 &= 1 + 2 + 3 \times 4 + 5 \times 67 \times 8 + 9. \\
2705 &= 12 + 345 \times 6 + 7 \times 89. \\
2706 &= 1 + (2 + 345) \times 6 + 7 \times 89. \\
2707 &= 1^2 \times 34 \times (5 + 6) \times 7 + 89. \\
2708 &= 12 + 3 + 4 + 5 \times 67 \times 8 + 9. \\
2709 &= 1 \times 2 + 34 \times (5 + 6) \times 7 + 89. \\
2710 &= 1 + (2 + 3) \times 4 + 5 \times 67 \times 8 + 9. \\
2711 &= (1 + 2 + 345) \times 6 + 7 \times 89. \\
2712 &= (1 + 23) \times (4 \times 5 + 6 + 78 + 9). \\
2713 &= 12 + 3 \times 4 + 5 \times 67 \times 8 + 9. \\
2714 &= 1 + 2 \times 3 \times 4 + 5 \times 67 \times 8 + 9. \\
2715 &= 12 \times 34 \times 5 + (67 + 8) \times 9. \\
2716 &= 1 \times 23 + 4 + 5 \times 67 \times 8 + 9. \\
2717 &= 1 + 23 + 4 + 5 \times 67 \times 8 + 9. \\
2718 &= 1 \times (2 + 34) \times 56 + 78 \times 9. \\
2719 &= 12 + 34 \times (5 + 6) \times 7 + 89. \\
2720 &= (1 + 2)^3 + 4 + 5 \times 67 \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2651 &= 98 \times 7 + 654 \times 3 + 2 + 1. \\
2652 &= 9 + 87 \times 6 \times 5 + 4 \times 3 + 21. \\
2653 &= (9 + 8) \times 7 \times (6 + 5) + 4^3 \times 21. \\
2654 &= (9 + 8) \times (7 + 6) \times (5 + 4 + 3) + 2 \times 1. \\
2655 &= 9 + 87 \times 6 \times 5 + 4 + 32 \times 1. \\
2656 &= 9 + 87 \times 6 \times 5 + 4 + 32 + 1. \\
2657 &= 9 \times 8 + 76 \times (5 + 4 \times 3) \times 2 + 1. \\
2658 &= ((9 + 8) \times 7 + 6 \times 54) \times 3 \times 2 \times 1. \\
2659 &= 9 \times 8 + 7 + 6 \times 5 \times 43 \times 2 \times 1. \\
2660 &= 9 \times 8 + 7 + 6 \times 5 \times 43 \times 2 + 1. \\
2661 &= 9 \times 8 + 7 \times 6 \times 54 + 321. \\
2662 &= 9 \times 87 + 6 \times 5 + 43^2 \times 1. \\
2663 &= 9 \times 87 + 6 \times 5 + 43^2 + 1. \\
2664 &= 9 + 87 \times 6 \times 5 + 43 + 2 \times 1. \\
2665 &= 9 + 87 \times 6 \times 5 + 43 + 2 + 1. \\
2666 &= 9 + (876 + 5 + 4) \times 3 + 2 \times 1. \\
2667 &= 9 + 876 + 54 \times (32 + 1). \\
2668 &= (9 + 87 \times 6) \times 5 + 4 + 3^2 \times 1. \\
2669 &= 98 \times 7 + 654 \times 3 + 21. \\
2670 &= 9 \times 8 \times 7 + 6 + 5 \times 432 \times 1. \\
2671 &= 9 \times 8 \times 7 + 6 + 5 \times 432 + 1. \\
2672 &= 9 \times 8 + (7 + 6) \times 5 \times 4 \times (3^2 + 1). \\
2673 &= 9 \times 8 \times (7 + 6 \times 5) + 4 + 3 + 2 \times 1. \\
2674 &= 9 \times 8 \times (7 + 6 \times 5) + 4 + 3 + 2 + 1. \\
2675 &= 9 \times 8 \times 7 + 6 + 5 \times (432 + 1). \\
2676 &= 9 + 87 + 6 \times 5 \times 43 \times 2 \times 1. \\
2677 &= 9 + 87 + 6 \times 5 \times 43 \times 2 + 1. \\
2678 &= (9 \times 8 \times 7 + 6) \times 5 + 4 \times 32 \times 1. \\
2679 &= (9 \times 8 \times 7 + 6) \times 5 + 4 \times 32 + 1. \\
2680 &= 9 + 8 + 76 \times 5 \times (4 + 3) + 2 + 1. \\
2681 &= 98 + (7 + 6 \times 5 + 4) \times 3 \times 21. \\
2682 &= 98 + 76 \times (5 + 4 \times 3) \times 2 \times 1. \\
2683 &= 9 + 87 \times 6 \times 5 + 43 + 21. \\
2684 &= (9 + 876 + 5 + 4) \times 3 + 2 \times 1. \\
2685 &= 98 + 7 + 6 \times 5 \times 43 \times 2 \times 1. \\
2686 &= 9 + 87 \times 6 \times 5 + 4 + 3 \times 21. \\
2687 &= 98 + 7 \times 6 \times 54 + 321. \\
2688 &= (9 + 8 + 7 + 6 + 54) \times 32 \times 1. \\
2689 &= (9 + 8 + 7 + 6 + 54) \times 32 + 1. \\
2690 &= 98 + (7 + 65) \times 4 \times 3^2 \times 1. \\
2691 &= 9 + 87 \times 6 + 5 \times 432 \times 1. \\
2692 &= 9 + 87 \times 6 + 5 \times 432 + 1. \\
2693 &= 9 + 8 \times 7 + 6 \times (5 + 432 + 1). \\
2694 &= 9 \times (8 + 7) \times 6 + (5^4 + 3) \times (2 + 1). \\
2695 &= (9 \times 8 + 7) \times 6 \times 5 + 4 + 321. \\
2696 &= 98 \times 7 + 6 \times 5 \times (4 + 3 \times 21). \\
2697 &= 9 \times 87 + 65 + 43^2 \times 1. \\
2698 &= 9 \times 87 + 65 + 43^2 + 1. \\
2699 &= (9 + 8) \times 7 + 6 \times 5 \times 43 \times 2 \times 1. \\
2700 &= (9 + 8) \times 7 + 6 \times 5 \times 43 \times 2 + 1. \\
2701 &= 9 \times 8 \times (7 + 6 \times 5) + 4 + 32 + 1. \\
2702 &= 9 \times 8 + 7 + 6 \times (5 + 432) + 1. \\
2703 &= 9 \times 87 + (6 + 54) \times 32 \times 1. \\
2704 &= 9 + 87 \times 6 \times 5 + 4^3 + 21. \\
2705 &= 9 + 87 \times 6 \times 5 + 43 \times 2 \times 1. \\
2706 &= 9 + 87 \times 6 \times 5 + 43 \times 2 + 1. \\
2707 &= 9 \times 8 + 7 + 6 \times (5 + 432 + 1). \\
2708 &= 987 + 6 + 5 \times (4 + 3)^{(2+1)}. \\
2709 &= 9 \times 8 \times (7 + 6 \times 5) + 43 + 2 \times 1. \\
2710 &= 9 \times 8 \times (7 + 6 \times 5) + 43 + 2 + 1. \\
2711 &= 9 + (8 + 7) \times (6 + 54) \times 3 + 2 \times 1. \\
2712 &= 98 + 765 + 43^2 \times 1. \\
2713 &= 98 + 765 + 43^2 + 1. \\
2714 &= 9 + (8 + 7 \times 6) \times 54 + 3 + 2 \times 1. \\
2715 &= 987 + 6 \times (5 + 4) \times 32 \times 1. \\
2716 &= 987 + 6 \times (5 + 4) \times 32 + 1. \\
2717 &= (9 + 876 + 5 \times 4) \times 3 + 2 \times 1. \\
2718 &= 9 + (876 + 5 \times 4) \times 3 + 21. \\
2719 &= (9 + 87 \times 6) \times 5 + 43 + 21. \\
2720 &= 9 + 8 \times (7 + 6 \times 54) + 3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2721 &= 1 \times 2^3 \times 4 + 5 \times 67 \times 8 + 9. \\
2722 &= 1 + 2^3 \times 4 + 5 \times 67 \times 8 + 9. \\
2723 &= 1^2 \times 34 + 5 \times 67 \times 8 + 9. \\
2724 &= 1^2 + 34 + 5 \times 67 \times 8 + 9. \\
2725 &= 1 \times 2 + 34 + 5 \times 67 \times 8 + 9. \\
2726 &= 1 + 2 + 34 + 5 \times 67 \times 8 + 9. \\
2727 &= 12 \times 34 \times 5 + 678 + 9. \\
2728 &= 1^2 + 3 \times (4 \times 5 \times 6 + 789). \\
2729 &= 12 \times 3 + 4 + 5 \times 67 \times 8 + 9. \\
2730 &= 1^2 + 34 \times (5 + 67 + 8) + 9. \\
2731 &= 12 + 3 + 4 \times (56 + 7 \times 89). \\
2732 &= 1 + 2 + 34 \times (5 + 67 + 8) + 9. \\
2733 &= 12 \times 3 \times (4 + 5) \times 6 + 789. \\
2734 &= 1 \times 2 + 3 + 4 + 5 \times (67 \times 8 + 9). \\
2735 &= 12 + 34 + 5 \times 67 \times 8 + 9. \\
2736 &= 12 \times (3 \times 45 + 6 + 78 + 9). \\
2737 &= 123 + 4 + 5 \times 6 \times (78 + 9). \\
2738 &= 1^2 + 3 \times 4 + 5 \times (67 \times 8 + 9). \\
2739 &= 1 \times 23 + 4 \times (56 + 7 \times 89). \\
2740 &= 1 + 23 + 4 \times (56 + 7 \times 89). \\
2741 &= 12^3 + 4 \times 56 + 789. \\
2742 &= 1 \times 2 \times 34 \times 5 \times 6 + 78 \times 9. \\
2743 &= 1 + 2 \times 34 \times 5 \times 6 + 78 \times 9. \\
2744 &= (12 \times 3 + 4) \times 56 + 7 \times 8 \times 9. \\
2745 &= 1^2 + 3 + 4 \times (5 + 678) + 9. \\
2746 &= 1 \times 2 + 3 + 4 \times (5 + 678) + 9. \\
2747 &= 123 + 4 \times (567 + 89). \\
2748 &= 12 \times 34 \times 5 + 6 + 78 \times 9. \\
2749 &= (1^2 + 34) \times 56 + 789. \\
2750 &= 1 + 2 \times 3 \times 4 + 5 \times (67 \times 8 + 9). \\
2751 &= (1 + 2 \times 3)^4 + 5 + 6 \times 7 \times 8 + 9. \\
2752 &= 12 \times 3 + 4 \times (56 + 7 \times 89). \\
2753 &= 12 \times 3 \times (4 + 5 + 67) + 8 + 9. \\
2754 &= 12 \times 34 \times 5 + 6 \times 7 \times (8 + 9). \\
2755 &= 1 + 2 \times (34 + 5 + 6 \times 7) \times (8 + 9). \\
2756 &= 12 + 3 + 4 \times (5 + 678) + 9. \\
2757 &= 12 \times 34 + 5 \times 6 \times 78 + 9. \\
2758 &= 1 + 2 \times 34 + 5 \times 67 \times 8 + 9. \\
2759 &= 12 \times 3 \times 45 + 67 \times (8 + 9). \\
2760 &= 1 \times 2 \times 3 \times 456 + 7 + 8 + 9. \\
2761 &= 1 + 2 \times 3 \times 456 + 7 + 8 + 9. \\
2762 &= 1 + 2 + 34 + 5 \times (67 \times 8 + 9). \\
2763 &= 1 \times 2 + (3 + 4) \times 56 \times 7 + 8 + 9. \\
2764 &= 1 + 2 + (3 + 4) \times 56 \times 7 + 8 + 9. \\
2765 &= (12 + 345) \times 6 + 7 \times 89. \\
2766 &= 12 + 3 \times (4 + 5) \times (6 + 7 + 89). \\
2767 &= 1 \times 2 \times (3 \times 456 + 7) + 8 + 9. \\
2768 &= (123 + 45 \times 6) \times 7 + 8 + 9. \\
2769 &= (1^2 + 34 + 5) \times 67 + 89. \\
2770 &= 1^2 \times 3^4 + 5 \times 67 \times 8 + 9. \\
2771 &= 1^2 + 3^4 + 5 \times 67 \times 8 + 9. \\
2772 &= 1 \times 2 + 3^4 + 5 \times 67 \times 8 + 9. \\
2773 &= 1^2 + 345 \times 6 + 78 \times 9. \\
2774 &= 1 \times 2 + 345 \times 6 + 78 \times 9. \\
2775 &= 1 + 2 + 345 \times 6 + 78 \times 9. \\
2776 &= 1 \times 2^3 + 4 \times (5 + 678 + 9). \\
2777 &= 12 \times 3 \times 45 + (6 + 7) \times 89. \\
2778 &= 123 + 45 \times (6 \times 7 + 8 + 9). \\
2779 &= 1^2 + 3 \times (4 \times 56 + 78 \times 9). \\
2780 &= 1^{23} \times 4 \times 5 \times (67 + 8 \times 9). \\
2781 &= 1 \times 23 \times 4 + 5 \times 67 \times 8 + 9. \\
2782 &= 12^3 + 4^5 + 6 + 7 + 8 + 9. \\
2783 &= 1 \times 2^3 \times 45 \times 6 + 7 \times 89. \\
2784 &= 12 + 345 \times 6 + 78 \times 9. \\
2785 &= 1 + 23 \times 4 \times 5 \times 6 + 7 + 8 + 9. \\
2786 &= 1 + 2 + 3 + 4 \times 5 \times (67 + 8 \times 9). \\
2787 &= 12^3 + 45 \times 6 + 789. \\
2788 &= 1 \times 2^3 + 4 \times 5 \times (67 + 8 \times 9). \\
2789 &= 12 \times (3 + 4 \times 56) + 7 \times 8 + 9. \\
2790 &= (1 + 2 + 345) \times 6 + 78 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2721 &= 987 + 6 + 54 \times 32 \times 1. \\
2722 &= 987 + 6 + 54 \times 32 + 1. \\
2723 &= (9 + 8 \times 7 + 6 \times 54) \times (3 \times 2 + 1). \\
2724 &= 9 \times 87 + 6 \times 5 \times 4^3 + 21. \\
2725 &= (9 \times 8 + 7 + 6 \times 5) \times (4 \times 3 \times 2 + 1). \\
2726 &= 9 + 8 + 7 \times (6 \times 54 + 3 \times 21). \\
2727 &= 9 \times 87 + 6 \times 54 \times 3 \times 2 \times 1. \\
2728 &= 9 \times 87 + 6 \times 54 \times 3 \times 2 + 1. \\
2729 &= 9 + 8 \times (7 + 6 \times 54 + 3^2 \times 1). \\
2730 &= 9 + (8 + 7) \times (6 + 54) \times 3 + 21. \\
2731 &= 9 \times 8 \times (7 + 6 \times 5) + 4 + 3 \times 21. \\
2732 &= 98 \times 7 + 6 \times (5 \times 4 + 321). \\
2733 &= 9 \times (8 \times 7 + 6 + 5) \times 4 + 321. \\
2734 &= 9 \times 8 + 76 \times 5 \times (4 + 3) + 2 \times 1. \\
2735 &= 9 \times 8 + 76 \times 5 \times (4 + 3) + 2 + 1. \\
2736 &= (9 + 87) \times 6 + 5 \times 432 \times 1. \\
2737 &= (9 + 87) \times 6 + 5 \times 432 + 1. \\
2738 &= 9 + 8 + (76 + 5 + 4) \times 32 + 1. \\
2739 &= 9 + 876 + 5 + 43^2 \times 1. \\
2740 &= 9 + 876 + 5 + 43^2 + 1. \\
2741 &= 9 + (8 + 7 \times 6) \times 54 + 32 \times 1. \\
2742 &= 9 + (8 + 7 \times 6) \times 54 + 32 + 1. \\
2743 &= 9 + ((8 \times 7 \times 6 + 5) \times 4 + 3) \times 2 \times 1. \\
2744 &= 98 + 7 \times (6 + 5 + 4 + 3) \times 21. \\
2745 &= (9 + 8 + 7 \times 6 \times 5) \times 4 \times 3 + 21. \\
2746 &= 9 + (8 + 76 \times 5) \times (4 + 3) + 21. \\
2747 &= 9 \times 87 + 654 \times 3 + 2 \times 1. \\
2748 &= 9 \times 87 + 654 \times 3 + 2 + 1. \\
2749 &= 9 \times 8 \times (7 + 6 \times 5) + 4^3 + 21. \\
2750 &= 9 \times 8 \times (7 + 6 \times 5) + 43 \times 2 \times 1. \\
2751 &= 9 \times 8 \times (7 + 6 \times 5) + 43 \times 2 + 1. \\
2752 &= (9 + 8 + (7 + 6) \times 5 + 4) \times 32 \times 1. \\
2753 &= 9 \times 8 + 76 \times 5 \times (4 + 3) + 21. \\
2754 &= 9 \times 8 \times 7 + 6 \times (54 + 321). \\
2755 &= (9 + 8 + 7 \times 6 + 5) \times 43 + 2 + 1. \\
2756 &= 9 \times (87 + 6 + 5 + 4) \times 3 + 2 \times 1. \\
2757 &= 9 \times (87 + 6 + 5 + 4) \times 3 + 2 + 1. \\
2758 &= (9 + 8) \times 7 \times (6 + 5 + 4 \times 3) + 21. \\
2759 &= 9 + (8 + 7 + 65 \times 4) \times (3^2 + 1). \\
2760 &= 98 + 76 \times 5 \times (4 + 3) + 2 \times 1. \\
2761 &= 98 + 76 \times 5 \times (4 + 3) + 2 + 1. \\
2762 &= 9 + 876 + 5^4 \times 3 + 2 \times 1. \\
2763 &= 9 + 876 + 5^4 \times 3 + 2 + 1. \\
2764 &= 9 + 87 \times 6 \times 5 + (4 \times 3)^2 + 1. \\
2765 &= 98 + 7 \times (6 + 54 + 321). \\
2766 &= 9 \times 87 + 654 \times 3 + 21. \\
2767 &= ((9 + 8 \times 7) \times 6 + 5) \times (4 + 3) + 2 \times 1. \\
2768 &= 98 + (7 + 65 \times 4) \times (3^2 + 1). \\
2769 &= 9 \times (8 + 7) \times (6 + 5) + 4 \times 321. \\
2770 &= (9 + 8 + (7 + 6) \times 5 \times 4) \times (3^2 + 1). \\
2771 &= (9 + 8) \times (76 + 54 + 32 + 1). \\
2772 &= (9 + 8 + 7 + 65 + 43) \times 21. \\
2773 &= (9 + 8 + 7 \times 6 + 5) \times 43 + 21. \\
2774 &= 9 + 8 \times 7 + (65 + 4^3) \times 21. \\
2775 &= 987 + 6 + 54 \times (32 + 1). \\
2776 &= (98 + 7 + 6) \times (5 \times 4 + 3 + 2) + 1. \\
2777 &= 9 + 8 \times 76 + 5 \times 432 \times 1. \\
2778 &= 9 + 8 \times 76 + 5 \times 432 + 1. \\
2779 &= 98 + 76 \times 5 \times (4 + 3) + 21. \\
2780 &= 987 + 65 + (4 \times 3)^{(2+1)}. \\
2781 &= 9 + 876 + 5^4 \times 3 + 21. \\
2782 &= 9 + (8 \times 76 + 5) \times 4 + 321. \\
2783 &= (9 + 87 \times 6) \times 5 + 4 \times 32 \times 1. \\
2784 &= (9 + 87 \times 6) \times 5 + 4 \times 32 + 1. \\
2785 &= (98 + 7 + 6 + 5) \times 4 \times 3 \times 2 + 1. \\
2786 &= 98 + 7 \times 6 \times (54 + 3^2 + 1). \\
2787 &= (9 + 87) \times (6 + 5 \times 4 + 3) + 2 + 1. \\
2788 &= 9 \times 8 + 7 + (65 + 4^3) \times 21. \\
2789 &= 9 + 8 + 7 \times (6 + 5) \times 4 \times 3^2 \times 1. \\
2790 &= (98 + 7) \times 6 + 5 \times 432 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2791 &= 1 \times 23 + 4 \times (5 + 678 + 9). \\
2792 &= 1 + 23 + 4 \times (5 + 678 + 9). \\
2793 &= 12 \times 34 + 5 \times (6 \times 78 + 9). \\
2794 &= 1 + 2 \times 34 + 5 \times (67 \times 8 + 9). \\
2795 &= 123 \times (4 + 5 + 6 + 7) + 89. \\
2796 &= 1 + 2345 + (6 \times 7 + 8) \times 9. \\
2797 &= (1 + 2)^3 \times 4 + 5 \times 67 \times 8 + 9. \\
2798 &= 1^2 + 3 + 4 + 5 \times (6 + 7 \times 8) \times 9. \\
2799 &= (1 + 2) \times 3 \times (4 \times 56 + 78 + 9). \\
2800 &= 1 \times 2 \times 3 + 4 + 5 \times (6 + 7 \times 8) \times 9. \\
2801 &= 1 \times 2 \times 3 \times 456 + 7 \times 8 + 9. \\
2802 &= 1 + 2 \times 3 \times 456 + 7 \times 8 + 9. \\
2803 &= 12 \times (3 + 4 \times 56) + 7 + 8 \times 9. \\
2804 &= 12 \times 3 + 4 \times (5 + 678 + 9). \\
2805 &= 123 \times 4 \times 5 + 6 \times 7 \times 8 + 9. \\
2806 &= 1 + (2 + 34) \times 56 + 789. \\
2807 &= 12^3 + 456 + 7 \times 89. \\
2808 &= 12 \times 3 \times (4 + 5 + 67) + 8 \times 9. \\
2809 &= 1 + 2 \times 3 \times 4 \times (5 \times 6 + 78 + 9). \\
2810 &= (1 + 2 \times 3)^4 + 56 \times 7 + 8 + 9. \\
2811 &= 12^3 + 4^5 + 6 \times 7 + 8 + 9. \\
2812 &= (1 + 2 + 34) \times (5 + 6 + 7 \times 8 + 9). \\
2813 &= 1 + 2 \times (3 \times (456 + 7) + 8 + 9). \\
2814 &= 12 + 3 + 45 \times (6 + 7 \times 8) + 9. \\
2815 &= 1 \times 2 \times 3 \times 456 + 7 + 8 \times 9. \\
2816 &= 123 + 4 + 5 \times 67 \times 8 + 9. \\
2817 &= 1 \times 23 + 4 + 5 \times (6 + 7 \times 8) \times 9. \\
2818 &= 1 + 23 \times 4 + 5 \times (67 \times 8 + 9). \\
2819 &= 1 \times 2345 + 6 \times (7 + 8 \times 9). \\
2820 &= 1 + 2345 + 6 \times (7 + 8 \times 9). \\
2821 &= (1 + 23) \times 4 + 5 \times (67 \times 8 + 9). \\
2822 &= 1 \times 2345 + 6 \times 78 + 9. \\
2823 &= 1 \times 2 \times 3 \times 456 + 78 + 9. \\
2824 &= 1 + 2 \times 3 \times 456 + 78 + 9. \\
2825 &= 1 \times 23 \times 4 \times 5 \times 6 + 7 \times 8 + 9. \\
2826 &= 1 + 23 \times 4 \times 5 \times 6 + 7 \times 8 + 9. \\
2827 &= 1 + 2 + 34 + 5 \times (6 + 7 \times 8) \times 9. \\
2828 &= 12 + (3 + 4) \times 56 \times 7 + 8 \times 9. \\
2829 &= 1 \times 2 \times 34 \times 5 \times 6 + 789. \\
2830 &= 1 + 2 \times 34 \times 5 \times 6 + 789. \\
2831 &= (1 + 2 + 34 + 5) \times 67 + 8 + 9. \\
2832 &= 1 \times 2 \times 3 \times 456 + 7 + 89. \\
2833 &= 12 \times 3 \times 4 + 5 \times 67 \times 8 + 9. \\
2834 &= 1^2 + (3 + 4) \times 56 \times 7 + 89. \\
2835 &= 12 \times 34 \times 5 + 6 + 789. \\
2836 &= 12^3 + 4^5 + 67 + 8 + 9. \\
2837 &= 12^3 + 4^5 + 6 + 7 + 8 \times 9. \\
2838 &= 1 + 2 + 3^4 \times (5 + 6 + 7 + 8 + 9). \\
2839 &= 1 \times 23 \times 4 \times 5 \times 6 + 7 + 8 \times 9. \\
2840 &= (123 + 45 \times 6) \times 7 + 89. \\
2841 &= 123 \times 4 + 5 \times 6 \times 78 + 9. \\
2842 &= 1 + 2 \times (3 \times 45 + 6 \times 7) \times 8 + 9. \\
2843 &= 12 \times (3 + 4 \times 56) + 7 \times (8 + 9). \\
2844 &= 1 \times 234 + 5 \times 6 \times (78 + 9). \\
2845 &= 12^3 + 4^5 + 6 + 78 + 9. \\
2846 &= 1 \times 2 + 3 \times 45 \times (6 + 7 + 8) + 9. \\
2847 &= 1 \times 23 \times 4 \times 5 \times 6 + 78 + 9. \\
2848 &= 1 + 23 \times 4 \times 5 \times 6 + 78 + 9. \\
2849 &= 1 + 2^3 \times 4 \times (5 + 67 + 8 + 9). \\
2850 &= 12 \times 34 \times 5 + 6 \times (7 + 8) \times 9. \\
2851 &= 1 \times 2 \times 3^4 + 5 \times 67 \times 8 + 9. \\
2852 &= 1 + 2 \times 3^4 + 5 \times 67 \times 8 + 9. \\
2853 &= (12 + 3 + 4 \times 56 + 78) \times 9. \\
2854 &= 12^3 + 4^5 + 6 + 7 + 89. \\
2855 &= 1 \times 2345 + 6 + 7 \times 8 \times 9. \\
2856 &= 1 + 2345 + 6 + 7 \times 8 \times 9. \\
2857 &= 1 + 23 \times 4 \times 5 \times 6 + 7 + 89. \\
2858 &= 1 + 2 + 3 + 4 \times (5 + 6 + 78 \times 9). \\
2859 &= 1^2 \times 345 \times 6 + 789. \\
2860 &= 1^2 + 345 \times 6 + 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2791 &= (98 + 7) \times 6 + 5 \times 432 + 1. \\
2792 &= 9 \times 8 \times (7 + 6 \times 5) + 4 \times 32 \times 1. \\
2793 &= (9 \times 8 + 7 + 6 + 5 + 43) \times 21. \\
2794 &= 9 + 8 \times 7 \times (6 + 5) \times 4 + 321. \\
2795 &= (98 \times 7 + 6 + 5) \times 4 + 3 \times 2 + 1. \\
2796 &= 9 + 8 + 7 + (6 + 5) \times 4 \times 3 \times 21. \\
2797 &= (98 \times 7 + 6 + 5) \times 4 + 3^2 \times 1. \\
2798 &= (98 \times 7 + 6 + 5) \times 4 + 3^2 + 1. \\
2799 &= 9 \times (87 + 6 + 5 \times 43 + 2 + 1). \\
2800 &= 9 \times (8 \times 7 + 6) \times 5 + 4 + 3 \times 2 \times 1. \\
2801 &= 9 + (876 + 54) \times 3 + 2 \times 1. \\
2802 &= 9 + (876 + 54) \times 3 + 2 + 1. \\
2803 &= (9 \times 8 + 7) \times 6 \times 5 + 432 + 1. \\
2804 &= 9 \times (8 \times 7 + 6) \times 5 + 4 \times 3 + 2 \times 1. \\
2805 &= 9 + 87 + (65 + 4^3) \times 21. \\
2806 &= (98 + 7 \times 6) \times 5 \times 4 + 3 \times 2 \times 1. \\
2807 &= 987 + 65 \times (4 + 3 + 21). \\
2808 &= (98 + 7 \times 6 \times 5 + 4) \times 3^2 \times 1. \\
2809 &= (9 + 8 \times 76 + 5) \times 4 + 321. \\
2810 &= 9 \times (8 + 7 \times 6 + 54) \times 3 + 2 \times 1. \\
2811 &= 9 \times (8 + 76 + 5 \times 4) \times 3 + 2 + 1. \\
2812 &= 9 \times (8 + 7 \times 65 + 4) \times 3 + 2 + 1. \\
2813 &= 9 \times 8 \times (7 + 6) + 5^4 \times 3 + 2 \times 1. \\
2814 &= 9 + 8 + (7 + 6) \times 5 \times 43 + 2 \times 1. \\
2815 &= 9 + 8 + (7 + 6) \times 5 \times 43 + 2 + 1. \\
2816 &= 9 + 87 \times (6 + 5) + 43^2 + 1. \\
2817 &= 9 + (87 + 6 \times 5) \times 4 \times 3 \times 2 \times 1. \\
2818 &= 98 + (76 + 5 + 4) \times 32 \times 1. \\
2819 &= (9 + 876 + 54) \times 3 + 2 \times 1. \\
2820 &= 9 + (876 + 54) \times 3 + 21. \\
2821 &= 9 + 8 + 7 + 65 \times 43 + 2 \times 1. \\
2822 &= 9 + 8 + 7 + 65 \times 43 + 2 + 1. \\
2823 &= 9 \times (8 \times 7 + 6) \times 5 + 4 \times 3 + 21. \\
2824 &= (98 + 7 \times 6) \times 5 \times 4 + 3 + 21. \\
2825 &= (9 \times (8 + 7) + 6) \times 5 \times 4 + 3 + 2 \times 1. \\
2826 &= (9 + 876 + 54 + 3) \times (2 + 1). \\
2827 &= 9 \times 8 + (7 \times 65 + 4) \times 3 \times 2 + 1. \\
2828 &= 98 + 7 \times (65 + 4 + 321). \\
2829 &= 9 \times (8 + 7 \times 6 + 54) \times 3 + 21. \\
2830 &= 9 \times (8 \times 7 + 6) \times 5 + 4 \times (3^2 + 1). \\
2831 &= 98 \times 7 + 65 \times (4 \times 3 + 21). \\
2832 &= (98 + 7 \times 6) \times 5 \times 4 + 32 \times 1. \\
2833 &= 9 + 8 + (7 + 6) \times 5 \times 43 + 21. \\
2834 &= 9 + (8 + 7) \times 65 + 43^2 + 1. \\
2835 &= 9 \times (8 \times 7 + 6) \times 5 + 43 + 2 \times 1. \\
2836 &= 9 \times (8 \times 7 + 6) \times 5 + 43 + 2 + 1. \\
2837 &= 9 + 8 \times 7 + (6 + 5) \times 4 \times 3 \times 21. \\
2838 &= (9 + 876 + 54) \times 3 + 21. \\
2839 &= (9 + 8) \times (76 + 5 + 43 \times 2 \times 1). \\
2840 &= 9 + 8 + 7 + 65 \times 43 + 21. \\
2841 &= (98 \times 7 + 65 \times 4) \times 3 + 2 + 1. \\
2842 &= 98 \times (7 + 6 + 5 + 4 + 3 \times 2 + 1). \\
2843 &= 9 + (8 + 7 \times 6 \times 5) \times (4 + 3^2 \times 1). \\
2844 &= 9 \times 8 \times 7 + 65 \times 4 \times 3^2 \times 1. \\
2845 &= 9 \times 8 \times 7 + 65 \times 4 \times 3^2 + 1. \\
2846 &= ((9 + 8 \times 7 + 6) \times 5 \times 4 + 3) \times 2 \times 1. \\
2847 &= 987 + 6 + 5 + 43^2 \times 1. \\
2848 &= 987 + 6 + 5 + 43^2 + 1. \\
2849 &= 9 + 8 \times (7 + 6 \times 54 + 3 + 21). \\
2850 &= (9 \times (8 + 7 + 6) \times 5 + 4) \times 3 + 2 + 1. \\
2851 &= (98 \times 7 + 6 + 5) \times 4 + 3 \times 21. \\
2852 &= 98 \times 7 + 6 + 5 \times 432 \times 1. \\
2853 &= 98 \times 7 + 6 + 5 \times 432 + 1. \\
2854 &= 9 \times (8 \times 7 + 6) \times 5 + 43 + 21. \\
2855 &= 9 \times ((8 \times 7 + 6) \times 5 + 4 + 3) + 2 \times 1. \\
2856 &= (9 + 876 + 543) \times 2 \times 1. \\
2857 &= (9 + 876 + 543) \times 2 + 1. \\
2858 &= 9 + (8 + 7 \times (6 + 5) + 4) \times 32 + 1. \\
2859 &= (98 \times 7 + 65 \times 4) \times 3 + 21. \\
2860 &= (9 + 8 \times 7) \times (6 + 5 + 4 \times 3 + 21).
\end{aligned}$$

Increasing order

$$\begin{aligned}
2861 &= 1 \times 2 + 345 \times 6 + 789. \\
2862 &= 1 \times 2^3 \times 45 \times 6 + 78 \times 9. \\
2863 &= 1 + 2^3 \times 45 \times 6 + 78 \times 9. \\
2864 &= 123 + 4 \times (5 + 678) + 9. \\
2865 &= (12 \times 3 + 4 + 5 + 6) \times 7 \times 8 + 9. \\
2866 &= 12^3 + 4^5 + 6 \times 7 + 8 \times 9. \\
2867 &= 1 \times 2345 + 6 \times (78 + 9). \\
2868 &= 1 + 2345 + 6 \times (78 + 9). \\
2869 &= 12 \times 3 \times 4 + 5 \times (67 \times 8 + 9). \\
2870 &= 1 \times 2 + 3 + (45 + 6) \times 7 \times 8 + 9. \\
2871 &= 12 + 345 \times 6 + 789. \\
2872 &= 1 + (2 + 345) \times 6 + 789. \\
2873 &= (1 \times 23 + 45) \times 6 \times 7 + 8 + 9. \\
2874 &= 1 + 2^3 + (45 + 6) \times 7 \times 8 + 9. \\
2875 &= 1 \times 23 \times (4 + 56 + 7 \times 8 + 9). \\
2876 &= 12^3 + 4 + 5 + 67 \times (8 + 9). \\
2877 &= (1 + 2 + 345) \times 6 + 789. \\
2878 &= 1 + 2 + (3 + 4 \times 5) \times (6 + 7 \times (8 + 9)). \\
2879 &= 1 \times 23 \times 4 \times 5 \times 6 + 7 \times (8 + 9). \\
2880 &= (12 + 3 + 4 + 5 + 6) \times (7 + 89). \\
2881 &= 1^2 + 3 \times (456 + 7 \times 8 \times 9). \\
2882 &= (1 + 2 \times 3)^4 + 56 \times 7 + 89. \\
2883 &= 12^3 + 4^5 + 6 \times 7 + 89. \\
2884 &= 1^2 + 3 + 4 \times 5 \times 6 \times (7 + 8 + 9). \\
2885 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times (7 + 8 + 9). \\
2886 &= 12^3 + 456 + 78 \times 9. \\
2887 &= 12 \times (34 + 5) \times 6 + 7 + 8 \times 9. \\
2888 &= (12 + 3 + 4) \times (56 + 7 + 89). \\
2889 &= (1 \times 2 + 345 + 6 + 7) \times 8 + 9. \\
2890 &= 1 \times 2345 + 67 \times 8 + 9. \\
2891 &= 1 + 2345 + 67 \times 8 + 9. \\
2892 &= 12 + 3 \times (456 + 7 \times 8 \times 9). \\
2893 &= 1^2 + 3 \times 4 + 5 \times 6 \times (7 + 89). \\
2894 &= 12^3 + 4 + 5 + (6 + 7) \times 89. \\
2895 &= 12 \times (34 + 5) \times 6 + 78 + 9. \\
2896 &= 1 + 23 \times 4 \times 5 \times 6 + (7 + 8) \times 9. \\
2897 &= 12 \times (3 + 4 \times 56 + 7) + 89. \\
2898 &= (1 \times 23 + 4 \times 5) \times 67 + 8 + 9. \\
2899 &= 12 + 3 + 4 + 5 \times 6 \times (7 + 89). \\
2900 &= (1 \times 2 + 3) \times 4 + 5 \times 6 \times (7 + 89). \\
2901 &= 12 \times (34 \times 5 + 6) + 789. \\
2902 &= 1 + 2 + 34 \times ((5 + 6) \times 7 + 8) + 9. \\
2903 &= (1 + 2 + 34 + 5) \times 67 + 89. \\
2904 &= 1 + (2 + 3) \times 456 + 7 \times 89. \\
2905 &= 12^3 + 4 \times 5 + (6 + 7) \times 89. \\
2906 &= 12 + (3^4 \times 5 + 6) \times 7 + 8 + 9. \\
2907 &= 12 + (3 + 4 + 5 \times 6) \times 78 + 9. \\
2908 &= 12^3 + 4^5 + 67 + 89. \\
2909 &= (12 + 3^4) \times 5 \times 6 + 7 \times (8 + 9). \\
2910 &= 1 \times 2 \times (3 \times 456 + 78 + 9). \\
2911 &= 1 + 2 \times (3 \times 456 + 78 + 9). \\
2912 &= 12^3 + 45 + 67 \times (8 + 9). \\
2913 &= 1 + 2^3 \times 4 + 5 \times 6 \times (7 + 89). \\
2914 &= 1^2 \times 34 + 5 \times 6 \times (7 + 89). \\
2915 &= 1^2 + 34 + 5 \times 6 \times (7 + 89). \\
2916 &= 12 \times (34 \times 5 + 67) + 8 \times 9. \\
2917 &= 1 + 2 + 34 + 5 \times 6 \times (7 + 89). \\
2918 &= 1 \times 2^{(3+4)} + 5 \times (6 + 7 \times 8) \times 9. \\
2919 &= 1 + 2^{(3+4)} + 5 \times (6 + 7 \times 8) \times 9. \\
2920 &= 12 \times 3 + 4 + 5 \times 6 \times (7 + 89). \\
2921 &= 1 \times 2345 + 6 \times (7 + 89). \\
2922 &= 1 + 2345 + 6 \times (7 + 89). \\
2923 &= 1234 + 5 \times 6 \times 7 \times 8 + 9. \\
2924 &= 1 + 234 + 5 \times 67 \times 8 + 9. \\
2925 &= (1 \times 23 + 4 \times 56 + 78) \times 9. \\
2926 &= 12 + 34 + 5 \times 6 \times (7 + 89). \\
2927 &= 12 \times (34 + 5) \times 6 + 7 \times (8 + 9). \\
2928 &= (1 \times 23 + 45) \times 6 \times 7 + 8 \times 9. \\
2929 &= 1 + (23 + 45) \times 6 \times 7 + 8 \times 9. \\
2930 &= 12^3 + 45 + (6 + 7) \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2861 &= ((98 + 7) \times 6 + 5) \times 4 + 321. \\
2862 &= 9 + 8 \times 7 + 65 \times 43 + 2 \times 1. \\
2863 &= 9 + 8 \times 7 + 65 \times 43 + 2 + 1. \\
2864 &= (9 \times (87 + 65) + 4^3) \times 2 \times 1. \\
2865 &= (9 \times 8 \times 7 + 65 + 4) \times (3 + 2) \times 1. \\
2866 &= 987 + 6 \times 5 + 43^2 \times 1. \\
2867 &= 987 + 6 \times 5 + 43^2 + 1. \\
2868 &= 9 + 87 + (6 + 5) \times 4 \times 3 \times 21. \\
2869 &= 9 \times 8 + (7 + 6) \times 5 \times 43 + 2 \times 1. \\
2870 &= 987 + 6 + 5^4 \times 3 + 2 \times 1. \\
2871 &= 9 + 87 \times 6 \times 5 + 4 \times 3 \times 21. \\
2872 &= (98 \times (7 + 6) + 54 \times 3) \times 2 \times 1. \\
2873 &= (98 \times 7 + 6 \times 5) \times 4 + 3 \times (2 + 1). \\
2874 &= (9 + 8) \times 7 \times 6 + 5 \times 432 \times 1. \\
2875 &= (9 + 8) \times 7 \times 6 + 5 \times 432 + 1. \\
2876 &= 9 \times 8 + 7 + 65 \times 43 + 2 \times 1. \\
2877 &= 9 \times 8 + 7 + 65 \times 43 + 2 + 1. \\
2878 &= ((9 + 8) \times 7 + 6) \times (5 \times 4 + 3) + 2 + 1. \\
2879 &= (9 + 8) \times 7 \times 6 + 5 \times (432 + 1). \\
2880 &= (9 \times 87 + 654 + 3) \times 2 \times 1. \\
2881 &= 9 + 8 \times 7 + 65 \times 43 + 21. \\
2882 &= 987 + (6 + 5^4) \times 3 + 2 \times 1. \\
2883 &= 987 + (6 + 5^4) \times 3 + 2 + 1. \\
2884 &= ((9 + 8 \times 7) \times (6 + 5) \times 4 + 3 + 21). \\
2885 &= 9 \times (8 + 7 + 65) \times 4 + 3 + 2 \times 1. \\
2886 &= 9 \times (8 + 7 + 65) \times 4 + 3 \times 2 \times 1. \\
2887 &= (9 + 8 + 7) \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
2888 &= 9 \times 8 + (7 + 6) \times 5 \times 43 + 21. \\
2889 &= 987 + 6 + 5^4 \times 3 + 21. \\
2890 &= (9 + 87) \times 6 \times 5 + 4 + 3 \times 2 \times 1. \\
2891 &= (9 + 87) \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
2892 &= (98 + 76 \times 5 + 4) \times 3 \times 2 \times 1. \\
2893 &= 9 + 87 + 65 \times 43 + 2 \times 1. \\
2894 &= 9 + 87 + 65 \times 43 + 2 + 1. \\
2895 &= 9 \times 8 + 7 + 65 \times 43 + 21. \\
2896 &= 98 + (7 + 6) \times 5 \times 43 + 2 + 1. \\
2897 &= (98 \times 7 + 6 \times 5) \times 4 + 32 + 1. \\
2898 &= (9 + 8 \times 7 + 6 \times 5 + 43) \times 21. \\
2899 &= 98 \times (7 + 6) + 5 \times (4 + 321). \\
2900 &= (98 + 7 + 6 + 5) \times (4 \times 3 \times 2 + 1). \\
2901 &= 987 + 65 + 43^2 \times 1. \\
2902 &= 98 + 7 + 65 \times 43 + 2 \times 1. \\
2903 &= 98 + 7 + 65 \times 43 + 2 + 1. \\
2904 &= 9 \times (8 + 7 + 65) \times 4 + 3 + 21. \\
2905 &= (9 + 87) \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
2906 &= (9 + 87) \times (6 + 5) + 43^2 + 1. \\
2907 &= 987 + (6 + 54) \times 32 \times 1. \\
2908 &= 987 + (6 + 54) \times 32 + 1. \\
2909 &= 987 + 6 \times 5 \times 4^3 + 2 \times 1. \\
2910 &= 987 + 6 \times 5 \times 4^3 + 2 + 1. \\
2911 &= 9 + (8 \times 7 + 6 + 5) \times 43 + 21. \\
2912 &= 9 + 87 + 65 \times 43 + 21. \\
2913 &= (9 + 87) \times 6 \times 5 + 4 \times 3 + 21. \\
2914 &= 98 + (7 + 6) \times 5 \times 43 + 21. \\
2915 &= 9 + 8 + 7 \times (65 + 4) \times 3 \times 2 \times 1. \\
2916 &= (9 + 87) \times 6 \times 5 + 4 + 32 \times 1. \\
2917 &= (9 + 87) \times 6 \times 5 + 4 + 32 + 1. \\
2918 &= 9 \times (8 \times 7 + 6) \times 5 + 4 \times 32 \times 1. \\
2919 &= 9 + 8 + 7 + 6 + (5 + 4) \times 321. \\
2920 &= (9 + 87) \times 6 \times 5 + 4 \times (3^2 + 1). \\
2921 &= 98 + 7 + 65 \times 43 + 21. \\
2922 &= 9 + 8 \times (76 + 5) \times 4 + 321. \\
2923 &= ((9 + 8 \times 7) \times (6 + 5) \times 4 + 3 \times 21). \\
2924 &= (9 + 8) \times ((7 + 6 \times 5) \times 4 + 3 + 21). \\
2925 &= 9 \times 87 + (6 \times 5 + 4) \times 3 \times 21. \\
2926 &= (9 + 87) \times 6 \times 5 + 43 + 2 + 1. \\
2927 &= (98 \times 7 + 6 \times 5) \times 4 + 3 \times 21. \\
2928 &= 987 + 6 \times 5 \times 4^3 + 21. \\
2929 &= 9 + 8 \times (7 \times 6 + 5 \times 4^3 + 2 + 1). \\
2930 &= (9 + 87) \times 6 \times 5 + (4 + 3)^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
2931 &= (12 + 345) \times 6 + 789. \\
2932 &= (1 + 2) \times 3^4 + 5 \times 67 \times 8 + 9. \\
2933 &= 12 \times (34 \times 5 + 67) + 89. \\
2934 &= 1^2 \times 3^4 \times 5 \times 6 + 7 \times 8 \times 9. \\
2935 &= 1^2 + 3^4 \times 5 \times 6 + 7 \times 8 \times 9. \\
2936 &= 1 \times 2 + 3^4 \times 5 \times 6 + 7 \times 8 \times 9. \\
2937 &= 123 \times 4 \times 5 + 6 \times 78 + 9. \\
2938 &= (1 + 2 + 34) \times (5 + 6) \times 7 + 89. \\
2939 &= 1 + 23 \times (4 \times 5 \times 6 + 7) + 8 + 9. \\
2940 &= 12 \times (3 + 4) \times (5 + 6 + 7 + 8 + 9). \\
2941 &= 1 + (2 + 3) \times (4 + 567 + 8 + 9). \\
2942 &= (12 \times 3 + 4) \times 56 + 78 \times 9. \\
2943 &= 12 + 3 + 4 \times (5 \times 6 + 78 \times 9). \\
2944 &= (12 + 34) \times (5 + 6 \times 7 + 8 + 9). \\
2945 &= (1 \times 23 + 45) \times 6 \times 7 + 89. \\
2946 &= 1 + (23 + 45) \times 6 \times 7 + 89. \\
2947 &= 1 + (2 + 3^4 \times 5) \times 6 + 7 \times 8 \times 9. \\
2948 &= 1 \times 2 \times 34 + 5 \times 6 \times (7 + 89). \\
2949 &= 1 \times 2^3 \times 45 \times 6 + 789. \\
2950 &= 1 + 2^3 \times 45 \times 6 + 789. \\
2951 &= (1 + 2 \times 3)^4 + 5 + 67 \times 8 + 9. \\
2952 &= 1 + 23 + 4 \times (5 \times 6 + 78 \times 9). \\
2953 &= (1 \times 23 + 4 \times 5) \times 67 + 8 \times 9. \\
2954 &= 1 + (23 + 4 \times 5) \times 67 + 8 \times 9. \\
2955 &= (1 + 2^3 \times 45) \times 6 + 789. \\
2956 &= (1^2 + 3^4 \times 5 + 6) \times 7 + 8 \times 9. \\
2957 &= 1 \times 2 \times (3 + 4) \times 5 \times 6 \times 7 + 8 + 9. \\
2958 &= (1 \times 2^3 + 4 \times 5 + 6) \times (78 + 9). \\
2959 &= 1 \times 234 + 5 \times (67 \times 8 + 9). \\
2960 &= 1 + 234 + 5 \times (67 \times 8 + 9). \\
2961 &= (1 + 2 \times 3)^4 + 56 + 7 \times 8 \times 9. \\
2962 &= 1^2 + 3^4 + 5 \times 6 \times (7 + 89). \\
2963 &= 1 \times 2 + 3^4 + 5 \times 6 \times (7 + 89). \\
2964 &= 12 \times 3 + 4 \times (5 \times 6 + 78 \times 9). \\
2965 &= (1 + 23 + 4 \times 5) \times 67 + 8 + 9. \\
2966 &= (1^2 \times 3^4 \times 5 + 6) \times 7 + 89. \\
2967 &= 1 \times 23 \times (45 + 67 + 8 + 9). \\
2968 &= 1 + 23 \times (45 + 67 + 8 + 9). \\
2969 &= (12 \times 3 + 4) \times (5 + 67) + 89. \\
2970 &= 123 \times 4 \times 5 + 6 + 7 \times 8 \times 9. \\
2971 &= 1 + (23 + 4 \times 5) \times 67 + 89. \\
2972 &= 1 \times 23 \times 4 + 5 \times 6 \times (7 + 89). \\
2973 &= 12^3 + 456 + 789. \\
2974 &= 1 \times 2345 + 6 + 7 \times 89. \\
2975 &= 1 + 2345 + 6 + 7 \times 89. \\
2976 &= 12 \times 34 \times 5 + (6 + 7) \times 8 \times 9. \\
2977 &= 12^3 + 4 \times 5 \times (6 + 7 \times 8) + 9. \\
2978 &= 12 + (3^4 \times 5 + 6) \times 7 + 89. \\
2979 &= 12^3 + (4 + 5) \times (67 + 8 \times 9). \\
2980 &= 12 + (3 + 4) \times (5 \times 67 + 89). \\
2981 &= 1 \times 23 + (4 + 5 \times 6) \times (78 + 9). \\
2982 &= 1 \times (2 + 3) \times 456 + 78 \times 9. \\
2983 &= 1 + (2 + 3) \times 456 + 78 \times 9. \\
2984 &= ((1^2 + 3^4) \times 5 + 6) \times 7 + 8 \times 9. \\
2985 &= (1 + 2 \times 3)^4 + 567 + 8 + 9. \\
2986 &= 1 + (2 \times 3)^4 + 5 \times 6 \times 7 \times 8 + 9. \\
2987 &= (12 + 34) \times (56 + 7) + 89. \\
2988 &= 123 + (45 + 6) \times 7 \times 8 + 9. \\
2989 &= 1 + 2 \times 3^4 \times (5 + 6 + 7) + 8 \times 9. \\
2990 &= 1 \times 23 \times (45 + 6 + 7 + 8 \times 9). \\
2991 &= 1 + 23 \times (45 + 6 + 7 + 8 \times 9). \\
2992 &= 1 \times 2^3 \times (4 + 5 + 6 + 7) \times (8 + 9). \\
2993 &= 1 \times 23 \times (4 \times 5 \times 6 + 7) + 8 \times 9. \\
2994 &= 1 + 23 \times (4 \times 5 \times 6 + 7) + 8 \times 9. \\
2995 &= 1 \times (2 + 3)^4 + 5 \times 6 \times (7 + 8 \times 9). \\
2996 &= (1 + 23 + 4) \times (5 + 6 + 7 + 89). \\
2997 &= 12 + (3 + 45) \times (6 + 7 \times 8) + 9. \\
2998 &= 1 + (2 + 3) \times 45 \times (6 + 7) + 8 \times 9. \\
2999 &= (1 + 23) \times 4 \times 5 \times 6 + 7 \times (8 + 9). \\
3000 &= 12 \times (34 + 5 \times 6 \times 7) + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
2931 &= 987 + 6 \times 54 \times 3 \times 2 \times 1. \\
2932 &= 987 + 6 \times 54 \times 3 \times 2 + 1. \\
2933 &= 9 \times (8 + 7) + 65 \times 43 + 2 + 1. \\
2934 &= 9 + 8 + (76 + 5) \times 4 \times 3^2 + 1. \\
2935 &= (9 + 8) \times 7 + 65 \times 43 + 21. \\
2936 &= 98 \times 7 + 6 \times (54 + 321). \\
2937 &= 987 + 6 \times (54 \times 3 \times 2 + 1). \\
2938 &= ((9 + 8) \times (7 + 6) + 5) \times (4 + 3^2 \times 1). \\
2939 &= ((9 + 8) \times 7 \times 6 + 5) \times 4 + 3 \times 21. \\
2940 &= 9 + 8 + 7 + 6 \times 54 \times 3^2 \times 1. \\
2941 &= 9 + 8 + 7 + 6 \times 54 \times 3^2 + 1. \\
2942 &= 98 \times (7 + 6 + 5 + 4 \times 3) + 2 \times 1. \\
2943 &= (9 + 8 + 7) \times 6 \times 5 \times 4 + 3 \times 21. \\
2944 &= 9 + 87 \times 6 \times 5 + 4 + 321. \\
2945 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times (3 + 21). \\
2946 &= (9 + 87) \times 6 \times 5 + 4^3 + 2 \times 1. \\
2947 &= (9 + 87) \times 6 \times 5 + 4 + 3 \times 21. \\
2948 &= 9 + 8 + 7 \times 6 + (5 + 4) \times 321. \\
2949 &= 9 \times 87 + 6 + 5 \times 432 \times 1. \\
2950 &= 9 \times 87 + 6 + 5 \times 432 + 1. \\
2951 &= 987 + 654 \times 3 + 2 \times 1. \\
2952 &= 987 + 654 \times 3 + 2 + 1. \\
2953 &= (9 \times 8 + 7 \times (6 + 54)) \times 3 \times 2 + 1. \\
2954 &= 9 \times 87 + 6 + 5 \times (432 + 1). \\
2955 &= (9 + 8) \times (7 + 6) \times 5 + 43^2 + 1. \\
2956 &= 9 + (8 + 7 \times (65 + 4)) \times 3 \times 2 + 1. \\
2957 &= 9 + 8 + 7 \times 6 \times 5 \times (4 + 3) \times 2 \times 1. \\
2958 &= 9 + 8 + 7 \times 6 \times 5 \times (4 + 3) \times 2 + 1. \\
2959 &= 9 \times 8 + 7 + 6 \times 5 \times 4 \times (3 + 21). \\
2960 &= 9 \times 8 + 76 \times (5 + 4 \times 3 + 21). \\
2961 &= (9 + 8 + 76 + 5 + 43) \times 21. \\
2962 &= 9 \times 8 \times (7 + 6 \times 5 + 4) + 3^2 + 1. \\
2963 &= 9 + 8 \times 7 + 6 \times (5 \times 4 + 3) \times 21. \\
2964 &= (9 \times 8 + 7 \times 6) \times (5 \times 4 + 3 + 2 + 1). \\
2965 &= (9 + 87) \times 6 \times 5 + 4^3 + 21. \\
2966 &= (9 \times 8 + 76) \times 5 \times 4 + 3 \times 2 \times 1. \\
2967 &= (9 + 87) \times 6 \times 5 + 43 \times 2 + 1. \\
2968 &= 987 + 6 \times 5 \times (4^3 + 2) + 1. \\
2969 &= (9 \times 8 + 76) \times 5 \times 4 + 3^2 \times 1. \\
2970 &= 987 + 654 \times 3 + 21. \\
2971 &= 9 \times (8 + 7) \times 6 + 5 \times 432 + 1. \\
2972 &= 9 + 87 \times (6 \times 5 + 4) + 3 + 2 \times 1. \\
2973 &= 9 + 8 \times 7 \times 6 \times 5 + 4 \times 321. \\
2974 &= 9 \times 8 + 7 + 6 + (5 + 4) \times 321. \\
2975 &= (9 + 8) \times (7 \times 6 + 5 + 4 \times 32 \times 1). \\
2976 &= 9 \times 8 \times (7 + 6 \times 5 + 4) + 3 + 21. \\
2977 &= (9 + 8 + 7 + 65 + 4) \times 32 + 1. \\
2978 &= 9 + 8 \times (7 + 6 \times 54) + 321. \\
2979 &= (98 + 76) \times (5 + 4 \times 3) + 21. \\
2980 &= (9 + 87 \times 6) \times 5 + 4 + 321. \\
2981 &= 9 + 8 \times 7 + 6 \times 54 \times 3^2 \times 1. \\
2982 &= 9 + 8 \times 7 + 6 \times 54 \times 3^2 + 1. \\
2983 &= (9 \times 8 \times 7 + 6) \times 5 + 432 + 1. \\
2984 &= (9 \times 8 + 76) \times 5 \times 4 + 3 + 21. \\
2985 &= 9 + (8 + 76 + 5 + 4) \times 32 \times 1. \\
2986 &= 98 + 76 \times (5 + 4 \times 3 + 21). \\
2987 &= 9 + (8 \times 7 + 6) \times (5 + 43) + 2 \times 1. \\
2988 &= 9 + (8 + 7) \times 6 + (5 + 4) \times 321. \\
2989 &= 9 \times 8 \times (7 + 6 \times 5) + 4 + 321. \\
2990 &= 9 + 8 \times 7 + 65 \times (43 + 2) \times 1. \\
2991 &= 9 + 87 + 6 + (5 + 4) \times 321. \\
2992 &= 9 \times 87 + (65 + 4) \times 32 + 1. \\
2993 &= (9 \times 8 + 76) \times 5 \times 4 + 32 + 1. \\
2994 &= 9 + 87 + 6 \times (5 \times 4 + 3) \times 21. \\
2995 &= 9 \times 8 + 7 + 6 \times 54 \times 3^2 \times 1. \\
2996 &= 9 \times 8 + 7 + 6 \times 54 \times 3^2 + 1. \\
2997 &= 9 \times (87 + 6) + 5 \times 432 \times 1. \\
2998 &= 9 \times (87 + 6) + 5 \times 432 + 1. \\
2999 &= 9 + 87 \times (6 \times 5 + 4) + 32 \times 1. \\
3000 &= 98 + 7 + 6 + (5 + 4) \times 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3001 &= (1 + 2^3 \times 45 + 6 + 7) \times 8 + 9. \\
3002 &= 1 \times 2 \times (3 + 4^5 + 6 \times (7 + 8 \times 9)). \\
3003 &= 123 + 4 \times (5 + 67 + 8) \times 9. \\
3004 &= 12^3 + 4 \times (5 \times (6 + 7 \times 8) + 9). \\
3005 &= 123 \times 4 \times 5 + 67 \times 8 + 9. \\
3006 &= (123 \times 4 + 5) \times 6 + 7 + 8 + 9. \\
3007 &= 123 + 4 + 5 \times 6 \times (7 + 89). \\
3008 &= 1 \times 2 \times (3 + 4^5 + 6 \times 78 + 9). \\
3009 &= 1^2 \times 3 \times 4 \times 5 \times (6 \times 7 + 8) + 9. \\
3010 &= 1 \times 23 \times (4 \times 5 \times 6 + 7) + 89. \\
3011 &= 1 + 23 \times (4 \times 5 \times 6 + 7) + 89. \\
3012 &= 12 \times (3 + 4 \times 56 + 7 + 8 + 9). \\
3013 &= 1 + 2 \times (3 + 4) \times 5 \times 6 \times 7 + 8 \times 9. \\
3014 &= 1^2 \times 3^4 \times (5 \times 6 + 7) + 8 + 9. \\
3015 &= 1 + (2 + 3) \times 45 \times (6 + 7) + 89. \\
3016 &= 1 \times 2 + 3^4 \times (5 \times 6 + 7) + 8 + 9. \\
3017 &= 12 \times (34 + 5 \times 6 \times 7) + 89. \\
3018 &= 12 \times 34 + 5 \times 6 \times (78 + 9). \\
3019 &= (1^2 + 34) \times (5 \times 6 + 7 \times 8) + 9. \\
3020 &= 1 \times 2345 + (67 + 8) \times 9. \\
3021 &= 1 + 2345 + (67 + 8) \times 9. \\
3022 &= (12 \times 34 + 5 + 6) \times 7 + 89. \\
3023 &= (1 + 2 \times 3^4) \times (5 + 6 + 7) + 89. \\
3024 &= 12 \times 3 \times (4 + 56 + 7 + 8 + 9). \\
3025 &= 1 + 234 + 5 \times (6 + 7 \times 8) \times 9. \\
3026 &= 1^2 \times 34 \times (5 + 67 + 8 + 9). \\
3027 &= 1^2 + 34 \times (5 + 67 + 8 + 9). \\
3028 &= 1 \times 2 + 34 \times (5 + 67 + 8 + 9). \\
3029 &= 1 \times 2 \times (3 + 4) \times 5 \times 6 \times 7 + 89. \\
3030 &= 1 + 2 \times (3 + 4) \times 5 \times 6 \times 7 + 89. \\
3031 &= (1 + 2 \times 3) \times (4 + 5 \times (6 + 78) + 9). \\
3032 &= 1 \times 2345 + 678 + 9. \\
3033 &= 1 + 2345 + 678 + 9. \\
3034 &= 1^{23} + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3035 &= 1^2 \times 3 + 45 \times 67 + 8 + 9. \\
3036 &= 1^2 + 3 + 45 \times 67 + 8 + 9. \\
3037 &= 1 \times 2 + 3 + 45 \times 67 + 8 + 9. \\
3038 &= 1 \times 2 \times 3 + 45 \times 67 + 8 + 9. \\
3039 &= 1 + 2 + 3 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3040 &= 1 + 2 \times 3 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3041 &= 1 + 2^3 + 45 \times 67 + 8 + 9. \\
3042 &= 1 + 2^3 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3043 &= 1 \times 2 + 3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3044 &= 1 + 2 + 3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3045 &= 1^{23} + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3046 &= 1 + (2 \times 3 \times 4 + 5 + 6) \times (78 + 9). \\
3047 &= 12 + 3 + 45 \times 67 + 8 + 9. \\
3048 &= 12 + 3 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3049 &= 1 \times 2 + 3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3050 &= 1 + 2 + 3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3051 &= 1 + 2 \times 3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3052 &= 1 \times 2^3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3053 &= 1 \times 2345 + 6 + 78 \times 9. \\
3054 &= 1 + 2 \times 3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3055 &= 1 \times 23 + 45 \times 67 + 8 + 9. \\
3056 &= 1 + 23 + 45 \times 67 + 8 + 9. \\
3057 &= 1 + 23 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3058 &= 1 \times 2 \times (3 \times 4 + 5) + 6 \times 7 \times 8 \times 9. \\
3059 &= 12 + 3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3060 &= 1 + 2345 + 6 \times 7 \times (8 + 9). \\
3061 &= 1 \times 2^3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3062 &= 1 + 2^3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3063 &= 1^2 \times 34 + 5 + 6 \times 7 \times 8 \times 9. \\
3064 &= 1^2 + 34 + 5 + 6 \times 7 \times 8 \times 9. \\
3065 &= 1 \times 2 + 34 + 5 + 6 \times 7 \times 8 \times 9. \\
3066 &= 1 + 2 + 34 + 5 + 6 \times 7 \times 8 \times 9. \\
3067 &= 1 \times 23 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3068 &= 12 \times 3 + 45 \times 67 + 8 + 9. \\
3069 &= 12 \times 3 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3070 &= 1 + (2 + 3) \times 456 + 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3001 &= (9 + 8 + 7 + 6) \times 5 \times 4 \times (3 + 2) + 1. \\
3002 &= 98 \times (7 + 6) + 54 \times 32 \times 1. \\
3003 &= 98 \times (7 + 6) + 54 \times 32 + 1. \\
3004 &= 9 \times 8 + 7 + 65 \times (43 + 2) \times 1. \\
3005 &= 9 \times 8 + 7 + 65 \times (43 + 2) + 1. \\
3006 &= 9 + (8 \times 7 + 6) \times (5 + 43) + 21. \\
3007 &= (9 \times 8 + 7) \times (6 \times 5 + 4) + 321. \\
3008 &= (9 + 87) \times 6 \times 5 + 4 \times 32 \times 1. \\
3009 &= (987 + 6 + 5 + 4) \times 3 + 2 + 1. \\
3010 &= (98 \times 7 + 65) \times 4 + 3 + 2 + 1. \\
3011 &= (9 + 8 + 7 + 6 + 5) \times 43 \times 2 + 1. \\
3012 &= 9 + 87 + 6 \times 54 \times 3^2 \times 1. \\
3013 &= 9 + 87 + 6 \times 54 \times 3^2 + 1. \\
3014 &= 9 + 8 + 7 + 65 \times (43 + 2 + 1). \\
3015 &= 98 + (76 + 5) \times 4 \times 3^2 + 1. \\
3016 &= 9 \times ((8 + 7) \times 6 + 5 \times (4 + 3)^2) + 1. \\
3017 &= 98 + 7 \times 6 \times (5 + 4^3) + 21. \\
3018 &= 9 + 87 + 6 \times (54 \times 3^2 + 1). \\
3019 &= (9 + 8) \times 7 \times 6 + (5 + 43)^2 + 1. \\
3020 &= (9 + 8) \times 76 + 54 \times 32 \times 1. \\
3021 &= 98 + 7 + 6 \times 54 \times 3^2 \times 1. \\
3022 &= 98 + 7 + 6 \times 54 \times 3^2 + 1. \\
3023 &= (9 \times 8 + 76) \times 5 \times 4 + 3 \times 21. \\
3024 &= (9 + 87 + 6 \times 5) \times 4 \times 3 \times 2 \times 1. \\
3025 &= (9 + 87 + 6 \times 5) \times 4 \times 3 \times 2 + 1. \\
3026 &= 98 \times 7 + 65 \times 4 \times 3^2 \times 1. \\
3027 &= 98 \times 7 + 65 \times 4 \times 3^2 + 1. \\
3028 &= (98 \times 7 + 65) \times 4 + 3 + 21. \\
3029 &= 98 + 7 \times 6 + (5 + 4) \times 321. \\
3030 &= 9 + (8 + 7 \times 6) \times 54 + 321. \\
3031 &= 98 + 7 + 65 \times (43 + 2) + 1. \\
3032 &= (98 \times 7 + 6 \times 54) \times 3 + 2 \times 1. \\
3033 &= 9 + 8 \times 7 \times 6 \times 5 + 4^3 \times 21. \\
3034 &= 9 + (8 + 7 + 6) \times (5 + 4 + 3)^2 + 1. \\
3035 &= (9 + 8) \times 7 + 6 \times 54 \times 3^2 \times 1. \\
3036 &= (98 \times 7 + 65) \times 4 + 32 \times 1. \\
3037 &= 9 \times 8 + 76 + (5 + 4) \times 321. \\
3038 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
3039 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 3 \times 2 \times 1. \\
3040 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 3 \times 2 + 1. \\
3041 &= 9 + 8 + 7 \times 6 \times (5 + 4 + 3 \times 21). \\
3042 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 3^2 \times 1. \\
3043 &= 9 \times 8 \times 7 \times 6 + 5 + 4 \times 3 + 2 \times 1. \\
3044 &= 9 \times 8 \times 7 \times 6 + 5 + 4 \times 3 + 2 + 1. \\
3045 &= 9 + 876 + 5 \times 432 \times 1. \\
3046 &= 9 + 876 + 5 \times 432 + 1. \\
3047 &= (98 + 7) \times (6 + 5 \times 4 + 3) + 2 \times 1. \\
3048 &= 98 \times (7 + 6 + 5) + 4 \times 321. \\
3049 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 + 3 + 2 \times 1. \\
3050 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 + 3 \times 2 \times 1. \\
3051 &= 9 + 87 \times 6 \times 5 + 432 \times 1. \\
3052 &= 9 + 87 \times 6 \times 5 + 432 + 1. \\
3053 &= 9 \times 8 \times 7 \times 6 + 5 + 4 \times 3 \times 2 \times 1. \\
3054 &= 9 \times 8 \times 7 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
3055 &= 9 + 8 \times 7 + 65 \times (43 + 2 + 1). \\
3056 &= 98 \times (7 + 6) + 54 \times (32 + 1). \\
3057 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 3 + 21. \\
3058 &= 9 + 8 \times 76 \times 5 + 4 + 3 + 2 \times 1. \\
3059 &= 9 + 8 \times 76 \times 5 + 4 + 3 \times 2 \times 1. \\
3060 &= 9 + 8 \times 76 \times 5 + 4 + 3 \times 2 + 1. \\
3061 &= 9 + (8 + 7 + 6 \times 54) \times 3^2 + 1. \\
3062 &= 9 \times 8 \times 7 \times 6 + 5 + 4 \times 3 + 21. \\
3063 &= 9 + 8 \times 76 \times 5 + 4 \times 3 + 2 \times 1. \\
3064 &= 9 + 8 \times 76 \times 5 + 4 \times 3 + 2 + 1. \\
3065 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 32 \times 1. \\
3066 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 32 + 1. \\
3067 &= (98 \times 7 + 65) \times 4 + 3 \times 21. \\
3068 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 + 3 + 21. \\
3069 &= 9 + 8 \times 76 \times 5 + 4 \times (3 + 2) \times 1. \\
3070 &= 9 + 8 \times 76 \times 5 + 4 \times (3 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3071 &= 12 + (3 + 4) \times 5 + 6 \times 7 \times 8 \times 9. \\
3072 &= 1^2 \times 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3073 &= 1^2 + 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3074 &= 1 \times 2 + 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3075 &= 1 + 2 + 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3076 &= 1 + 2 \times 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3077 &= 1 \times 2^3 + 45 + 6 \times 7 \times 8 \times 9. \\
3078 &= 1 + 2^3 + 45 + 6 \times 7 \times 8 \times 9. \\
3079 &= (12 + 34) \times 5 \times (6 + 7) + 89. \\
3080 &= 12 \times 3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3081 &= 123 + (4 + 5 \times 6) \times (78 + 9). \\
3082 &= 1 \times 23 \times (4 \times 5 + 6 \times 7 + 8 \times 9). \\
3083 &= 1 \times (2 \times 34 + 5) \times 6 \times 7 + 8 + 9. \\
3084 &= 12 + 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3085 &= 12^3 + 4 \times 5 \times 67 + 8 + 9. \\
3086 &= 1 \times 2 + 3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3087 &= 1 + 2 + 3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3088 &= 1^{23} + 45 \times 67 + 8 \times 9. \\
3089 &= 123 \times 4 \times 5 + 6 + 7 \times 89. \\
3090 &= 1^2 \times 3 + 45 \times 67 + 8 \times 9. \\
3091 &= 1^2 + 3 + 45 \times 67 + 8 \times 9. \\
3092 &= 1 \times 23 + 45 + 6 \times 7 \times 8 \times 9. \\
3093 &= 1 + 23 + 45 + 6 \times 7 \times 8 \times 9. \\
3094 &= 1 + 2 \times 3 + 45 \times 67 + 8 \times 9. \\
3095 &= 1 \times 2^3 + 45 \times 67 + 8 \times 9. \\
3096 &= 12 + 3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3097 &= 12 \times 34 + 5 \times 67 + 8 + 9. \\
3098 &= 1 + 2 \times 34 + 5 + 6 \times 7 \times 8 \times 9. \\
3099 &= (1 + 2 + 3 \times 4) \times 5 + 6 \times 7 \times 8 \times 9. \\
3100 &= 1 + 2 \times (3 + 4 \times 5) \times 67 + 8 + 9. \\
3101 &= 1 \times 2345 + (6 + 78) \times 9. \\
3102 &= 12 + 3 + 45 \times 67 + 8 \times 9. \\
3103 &= 1^2 + 3 \times 4^5 + 6 + 7 + 8 + 9. \\
3104 &= 1^{23} \times 45 \times 67 + 89. \\
3105 &= 12 \times 3 + 45 + 6 \times 7 \times 8 \times 9. \\
3106 &= 1 + (2^3 + 4 + 5 + 6) \times (7 + 8) \times 9. \\
3107 &= 1^2 \times 3 + 45 \times 67 + 89. \\
3108 &= 1^2 + 3 + 45 \times 67 + 89. \\
3109 &= 1 \times 2 + 3 + 45 \times 67 + 89. \\
3110 &= 1 + 2 + 3 + 45 \times 67 + 89. \\
3111 &= 1 + 23 + 45 \times 67 + 8 \times 9. \\
3112 &= 1 \times 2^3 + 45 \times 67 + 89. \\
3113 &= 1 + 2^3 + 45 \times 67 + 89. \\
3114 &= 12 + 3 \times 4^5 + 6 + 7 + 8 + 9. \\
3115 &= 1 + 234 + 5 \times 6 \times (7 + 89). \\
3116 &= (1 + 2 \times 3)^4 + (5 + 6) \times (7 \times 8 + 9). \\
3117 &= (123 \times 4 + 5) \times 6 + (7 + 8) \times 9. \\
3118 &= 1 + 23 + (4 \times 5 + 6) \times 7 \times (8 + 9). \\
3119 &= 12 + 3 + 45 \times 67 + 89. \\
3120 &= 1 \times 2 \times (3 + 45) + 6 \times 7 \times 8 \times 9. \\
3121 &= 1 \times 23 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3122 &= 12 + 3^4 + 5 + 6 \times 7 \times 8 \times 9. \\
3123 &= 12 \times 3 + 45 \times 67 + 8 \times 9. \\
3124 &= 1 \times (2 + 3) \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3125 &= (1 + 2) \times 34 \times 5 \times 6 + 7 \times 8 + 9. \\
3126 &= 1 + 2 + 3 + 4 \times 5 \times (67 + 89). \\
3127 &= 1 \times 23 + 45 \times 67 + 89. \\
3128 &= 1 + 23 + 45 \times 67 + 89. \\
3129 &= (1 + 2) \times (3 + 4) \times 5 + 6 \times 7 \times 8 \times 9. \\
3130 &= 1 + (2 \times 3 + 4 + 5 \times 6) \times 78 + 9. \\
3131 &= 1^2 \times 3 \times 4^5 + 6 \times 7 + 8 + 9. \\
3132 &= 1^2 + 3 \times 4^5 + 6 \times 7 + 8 + 9. \\
3133 &= 1 \times 2 + 3 \times 4^5 + 6 \times 7 + 8 + 9. \\
3134 &= 1 \times 2 + 3^4 \times 5 \times 6 + 78 \times 9. \\
3135 &= 1 + 2 + 3^4 \times 5 \times 6 + 78 \times 9. \\
3136 &= 12^3 + 4 \times (5 \times 67 + 8 + 9). \\
3137 &= (1 + 2)^3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3138 &= (12 \times 34 + 5 \times 6) \times 7 + 8 \times 9. \\
3139 &= (1 + 2) \times 34 \times 5 \times 6 + 7 + 8 \times 9. \\
3140 &= 12 \times 3 + 45 \times 67 + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3071 &= 9 \times 8 \times 7 \times 6 + (5 \times 4 + 3) \times 2 + 1. \\
3072 &= 9 \times 8 \times 7 \times 6 + (5 + 4) \times 3 + 21. \\
3073 &= 9 + 8 \times 76 \times 5 + 4 \times 3 \times 2 \times 1. \\
3074 &= 9 \times 8 \times 7 \times 6 + 5 + 43 + 2 \times 1. \\
3075 &= 9 \times 8 \times 7 \times 6 + 5 + 43 + 2 + 1. \\
3076 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 + 32 \times 1. \\
3077 &= 9 + 8 \times 76 \times 5 + 4 + 3 + 21. \\
3078 &= 9 + 8 \times (7 + 6 \times 5 \times 4) \times 3 + 21. \\
3079 &= 9 \times 8 \times 7 \times 6 + 5 + (4 + 3)^2 + 1. \\
3080 &= (9 + 8 + 76 \times 5 \times 4 + 3) \times 2 \times 1. \\
3081 &= (9 + 8 + 76 \times 5 \times 4 + 3) \times 2 + 1. \\
3082 &= 9 + 8 \times 76 \times 5 + 4 \times 3 + 21. \\
3083 &= 9 \times 8 \times 7 \times 6 + 54 + 3 + 2 \times 1. \\
3084 &= 9 \times 8 \times 7 \times 6 + 54 + 3 \times 2 \times 1. \\
3085 &= 9 + 8 \times 76 \times 5 + 4 + 32 \times 1. \\
3086 &= 9 + 8 \times 76 \times 5 + 4 + 32 + 1. \\
3087 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 3 + 2 + 1. \\
3088 &= 9 \times 8 \times 7 \times 6 + 54 + 3^2 + 1. \\
3089 &= 9 + 8 + (7 \times 6 + 54) \times 32 \times 1. \\
3090 &= 9 + 8 + (7 \times 6 + 54) \times 32 + 1. \\
3091 &= 98 \times 7 + 65 \times (4 + 32 + 1). \\
3092 &= 9 \times (8 + 7 \times (6 + 5)) \times 4 + 32 \times 1. \\
3093 &= 9 \times 8 \times 7 \times 6 + 5 + 43 + 21. \\
3094 &= 9 + 8 \times 76 \times 5 + 43 + 2 \times 1. \\
3095 &= 9 + 8 \times 76 \times 5 + 43 + 2 + 1. \\
3096 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 3 \times 21. \\
3097 &= 9 \times 8 \times (7 + 6 \times 5) + 432 + 1. \\
3098 &= 9 + 8 \times 76 \times 5 + (4 + 3)^2 \times 1. \\
3099 &= 9 + 8 \times 76 \times 5 + (4 + 3)^2 + 1. \\
3100 &= (9 + 8 \times 76) \times 5 + 4 \times 3 + 2 + 1. \\
3101 &= 9 + 8 + 765 \times 4 + 3 + 21. \\
3102 &= 9 \times 8 \times 7 \times 6 + 54 + 3 + 21. \\
3103 &= 9 \times (8 \times 7 + 6 \times 5) \times 4 + 3 \times 2 + 1. \\
3104 &= 9 + 8 + 765 \times 4 + 3^{(2+1)}. \\
3105 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 3 + 21. \\
3106 &= 9 + (8 + 765) \times 4 + 3 + 2 \times 1. \\
3107 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 + 3 \times 21. \\
3108 &= 9 + (8 + 765) \times 4 + 3 \times 2 + 1. \\
3109 &= 9 + 8 + 765 \times 4 + 32 \times 1. \\
3110 &= 9 \times 8 \times 7 \times 6 + 54 + 32 \times 1. \\
3111 &= 9 \times 8 \times 7 \times 6 + 54 + 32 + 1. \\
3112 &= 9 + 8 + 7 \times (6 + 5 \times 43) \times 2 + 1. \\
3113 &= 9 + 8 \times 76 \times 5 + 43 + 21. \\
3114 &= 9 \times 8 \times 7 \times 6 + 5 + 4^3 + 21. \\
3115 &= 9 \times 8 \times 7 \times 6 + 5 + 43 \times 2 \times 1. \\
3116 &= 9 + 8 \times 76 \times 5 + 4 + 3 \times 21. \\
3117 &= 9 + (8 + 7) \times (65 + 4) \times 3 + 2 + 1. \\
3118 &= 9 + 8 + 7 \times (6 + 5 + 432 \times 1). \\
3119 &= 9 + 8 + (7 \times 6 + 5) \times (4^3 + 2) \times 1. \\
3120 &= (9 + 8 \times 7 + 65) \times 4 \times 3 \times 2 \times 1. \\
3121 &= (98 + 7 \times 6) \times 5 \times 4 + 321. \\
3122 &= 98 + 7 \times 6 \times (5 + 4 + 3 \times 21). \\
3123 &= 9 \times 87 + 65 \times 4 \times 3^2 \times 1. \\
3124 &= 9 \times 87 + 65 \times 4 \times 3^2 + 1. \\
3125 &= 9 + (8 + 765) \times 4 + 3 + 21. \\
3126 &= 9 + 8 \times (76 \times 5 + 4 + 3) + 21. \\
3127 &= 98 + (7 \times 6 + 5) \times 4^3 + 21. \\
3128 &= 98 \times (7 + 6) + 5 + 43^2 \times 1. \\
3129 &= 987 + 6 \times (5 + 4 \times 3) \times 21. \\
3130 &= (9 + 8 \times 76) \times 5 + 43 + 2 \times 1. \\
3131 &= 9 + 8 \times (76 + 54) \times 3 + 2 \times 1. \\
3132 &= 987 + 65 \times (4 \times 3 + 21). \\
3133 &= 9 + (8 + 765) \times 4 + 32 \times 1. \\
3134 &= 9 + 8 \times 76 \times 5 + 4^3 + 21. \\
3135 &= 9 + 8 \times 76 \times 5 + 43 \times 2 \times 1. \\
3136 &= 9 + 8 \times 76 \times 5 + 43 \times 2 + 1. \\
3137 &= 9 \times 8 + 765 \times 4 + 3 + 2 \times 1. \\
3138 &= 9 \times 8 + 765 \times 4 + 3 + 2 + 1. \\
3139 &= 9 \times 8 + 765 \times 4 + 3 \times 2 + 1. \\
3140 &= 9 + 8 + 765 \times 4 + 3 \times 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3141 &= 1 + 2345 + 6 + 789. \\
3142 &= 12^3 + 4^5 + 6 \times (7 \times 8 + 9). \\
3143 &= 12 + 3 \times 4^5 + 6 \times 7 + 8 + 9. \\
3144 &= 1 \times 2 \times 3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3145 &= 1 + 2 \times 3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3146 &= 1 + 2 + 3 \times 4^5 + 6 + 7 \times 8 + 9. \\
3147 &= 123 \times 4 \times 5 + 678 + 9. \\
3148 &= 12^3 + 4 \times 5 \times (6 + 7 \times 8 + 9). \\
3149 &= 1^{23} \times 4 + 56 \times 7 \times 8 + 9. \\
3150 &= 1^{23} + 4 + 56 \times 7 \times 8 + 9. \\
3151 &= 1 + (2 + 3 + 4) \times (5 + 6 \times 7 \times 8 + 9). \\
3152 &= 1^2 \times 3 + 4 + 56 \times 7 \times 8 + 9. \\
3153 &= 1^2 + 3 + 4 + 56 \times 7 \times 8 + 9. \\
3154 &= 1 \times 2 + 3 + 4 + 56 \times 7 \times 8 + 9. \\
3155 &= 123 + 45 \times 67 + 8 + 9. \\
3156 &= 123 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3157 &= 12^3 + 4 \times 5 \times 67 + 89. \\
3158 &= 1 + 2^3 + 4 + 56 \times 7 \times 8 + 9. \\
3159 &= 1 + 2 + 3 \times 4^5 + 67 + 8 + 9. \\
3160 &= 1 + 2 + 3 \times 4 + 56 \times 7 \times 8 + 9. \\
3161 &= 1 \times 2 + 3 \times 45 + 6 \times 7 \times 8 \times 9. \\
3162 &= 1 + 2 + 3 \times 45 + 6 \times 7 \times 8 \times 9. \\
3163 &= 1 + 2 \times (3 \times 4 + 5) \times (6 + 78 + 9). \\
3164 &= 12 + 3 + 4 + 56 \times 7 \times 8 + 9. \\
3165 &= 1^2 \times 3 \times 4^5 + 6 + 78 + 9. \\
3166 &= 1^2 + 3 \times 4^5 + 6 + 78 + 9. \\
3167 &= 123 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3168 &= 123 \times 4 \times 5 + 6 + 78 \times 9. \\
3169 &= 12 + 3 \times 4 + 56 \times 7 \times 8 + 9. \\
3170 &= 1 + 2 \times 3 \times 4 + 56 \times 7 \times 8 + 9. \\
3171 &= 12 + 3 \times 45 + 6 \times 7 \times 8 \times 9. \\
3172 &= 1 \times 23 + 4 + 56 \times 7 \times 8 + 9. \\
3173 &= 12 \times 3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3174 &= 1^2 \times 3 \times 4^5 + 6 + 7 + 89. \\
3175 &= 1^2 + 3 \times 4^5 + 6 + 7 + 89. \\
3176 &= 1 \times 2 + 3 \times 4^5 + 6 + 7 + 89. \\
3177 &= 12 + 3 \times 4^5 + 6 + 78 + 9. \\
3178 &= 1 + 2^3 \times 4 + 56 \times 7 \times 8 + 9. \\
3179 &= 1^2 \times 34 + 56 \times 7 \times 8 + 9. \\
3180 &= 1^2 + 34 + 56 \times 7 \times 8 + 9. \\
3181 &= 1 \times 2 + 34 + 56 \times 7 \times 8 + 9. \\
3182 &= 1 + 2 + 34 + 56 \times 7 \times 8 + 9. \\
3183 &= 12 + 3 \times 4^5 + 6 \times (7 + 8) + 9. \\
3184 &= 1 \times 2^3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3185 &= 1 + 2^3 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3186 &= 12 + 3 \times 4^5 + 6 + 7 + 89. \\
3187 &= 1^2 + 3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
3188 &= 1 \times 2 + 3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
3189 &= 1 + 2 + 3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
3190 &= (1 \times 2 + 3) \times (4 + 5 + 6 + 7 \times 8 + 9). \\
3191 &= 12 + 34 + 56 \times 7 \times 8 + 9. \\
3192 &= 123 + 45 + 6 \times 7 \times 8 \times 9. \\
3193 &= 1 + (2 + 3^4) \times 5 \times 6 + 78 \times 9. \\
3194 &= 1^2 \times 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3195 &= 1^2 + 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3196 &= 1 \times 2 + 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3197 &= 1 + 2 + 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3198 &= 12 + 3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
3199 &= (12 + 34) \times 56 + 7 \times 89. \\
3200 &= 1 \times 2 + 3 + 45 \times (6 + 7 \times 8 + 9). \\
3201 &= (12 + 34 + 5 + 6) \times 7 \times 8 + 9. \\
3202 &= 1 + (23 + 4 + 5 \times 6) \times 7 \times 8 + 9. \\
3203 &= 1^2 \times 3 \times 4^5 + 6 \times 7 + 89. \\
3204 &= 1^2 + 3 \times 4^5 + 6 \times 7 + 89. \\
3205 &= 1 \times 2 + 3 \times 4^5 + 6 \times 7 + 89. \\
3206 &= 12 + 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3207 &= (12 + 3 + 4 \times 5 + 6) \times 78 + 9. \\
3208 &= (1^2 + 3 + 4) \times 56 \times 7 + 8 \times 9. \\
3209 &= 1^{23} \times 456 \times 7 + 8 + 9. \\
3210 &= 123 + 45 \times 67 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3141 &= 9 \times 8 + 765 \times 4 + 3^2 \times 1. \\
3142 &= 9 \times 8 + 765 \times 4 + 3^2 + 1. \\
3143 &= (987 + 6 + 54) \times 3 + 2 \times 1. \\
3144 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
3145 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 3 \times 2 + 1. \\
3146 &= (9 + 8) \times 76 + 5 + 43^2 \times 1. \\
3147 &= (9 + 8) \times 76 + 5 + 43^2 + 1. \\
3148 &= 9 + 8 \times (76 \times 5 + 4 \times 3) + 2 + 1. \\
3149 &= 9 \times 8 \times 7 \times 6 + 5 \times (4 \times 3 \times 2 + 1). \\
3150 &= (9 + 8 + 76 + 54 + 3) \times 21. \\
3151 &= 98 \times (7 + 6) + 5^4 \times 3 + 2 \times 1. \\
3152 &= (9 + 8 + 765) \times 4 + 3 + 21. \\
3153 &= 987 + 6 + 5 \times 432 \times 1. \\
3154 &= 987 + 6 + 5 \times 432 + 1. \\
3155 &= 9 + 8 + 7 + 6 + 5^4 \times (3 + 2 \times 1). \\
3156 &= 9 \times 8 + 765 \times 4 + 3 + 21. \\
3157 &= 9 \times 8 \times 7 \times 6 + 5 + 4^3 \times 2 \times 1. \\
3158 &= 9 \times 8 \times 7 \times 6 + 5 + 4^3 \times 2 + 1. \\
3159 &= (98 + 7) \times 6 \times 5 + 4 + 3 + 2 \times 1. \\
3160 &= (98 + 7) \times 6 \times 5 + 4 + 3 + 2 + 1. \\
3161 &= (98 + 7) \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
3162 &= (987 + 6 + 54) \times 3 + 21. \\
3163 &= (98 + 7) \times 6 \times 5 + 4 + 3^2 \times 1. \\
3164 &= 9 \times 8 + 765 \times 4 + 32 \times 1. \\
3165 &= 98 + 765 \times 4 + 3 \times 2 + 1. \\
3166 &= 9 + 8 \times (76 \times 5 + 4 \times 3) + 21. \\
3167 &= 98 + 765 \times 4 + 3^2 \times 1. \\
3168 &= 98 + 765 \times 4 + 3^2 + 1. \\
3169 &= (9 + 8) \times 76 + 5^4 \times 3 + 2 \times 1. \\
3170 &= (9 + 8) \times 76 + 5^4 \times 3 + 2 + 1. \\
3171 &= (987 + 65 + 4) \times 3 + 2 + 1. \\
3172 &= (9 + 8 \times 76) \times 5 + 43 \times 2 + 1. \\
3173 &= 9 \times 8 + 7 \times (6 + 5 + 432 \times 1). \\
3174 &= (98 + 7) \times 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
3175 &= (98 + 7) \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
3176 &= 9 \times 8 \times 7 \times 6 + 5 + (4 + 3) \times 21. \\
3177 &= 9 + 8 \times 76 \times 5 + 4 \times 32 \times 1. \\
3178 &= 9 + 8 \times 76 \times 5 + 4^3 \times 2 + 1. \\
3179 &= (9 + 8 + 7 \times 6 \times 5) \times (4 + 3) \times 2 + 1. \\
3180 &= 9 \times 8 + 7 \times (6 + 5 + 432 + 1). \\
3181 &= 9 + 8 \times 76 \times 5 + 4 \times (32 + 1). \\
3182 &= 98 + 765 \times 4 + 3 + 21. \\
3183 &= (98 + 7) \times 6 \times 5 + 4 \times 3 + 21. \\
3184 &= 9 + 8 + 7 \times 6 + 5^4 \times (3 + 2) \times 1. \\
3185 &= (98 \times 7 + 6 \times 5) \times 4 + 321. \\
3186 &= (98 + 7) \times 6 \times 5 + 4 + 32 \times 1. \\
3187 &= (98 + 7) \times 6 \times 5 + 4 + 32 + 1. \\
3188 &= 9 \times 8 \times 7 \times 6 + 54 \times 3 + 2 \times 1. \\
3189 &= 9 \times 8 \times 7 \times 6 + 54 \times 3 + 2 + 1. \\
3190 &= 98 + 765 \times 4 + 32 \times 1. \\
3191 &= 98 + 765 \times 4 + 32 + 1. \\
3192 &= 98 + 7 \times (6 + 5 \times 43) \times 2 \times 1. \\
3193 &= (9 + 8 + 7 \times 6) \times 54 + 3 \times 2 + 1. \\
3194 &= 9 + 8 \times 76 \times 5 + (4 \times 3)^2 + 1. \\
3195 &= 9 \times 8 + 765 \times 4 + 3 \times 21. \\
3196 &= 987 + (65 + 4) \times 32 + 1. \\
3197 &= 98 + (7 + 65) \times 43 + 2 + 1. \\
3198 &= 9 + 8 + 7 + 6 \times (5 \times 4 + 3)^2 \times 1. \\
3199 &= 98 + 7 \times (6 + 5 + 432) \times 1. \\
3200 &= (9 \times 87 + 6 + 5) \times 4 + 3 + 21. \\
3201 &= 9 \times (8 + 7 + 65) \times 4 + 321. \\
3202 &= (9 + 8) \times (7 \times 6 + 5) \times 4 + 3 + 2 + 1. \\
3203 &= (9 + 8) \times (7 \times 6 + 5) \times 4 + 3 \times 2 + 1. \\
3204 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 3^2 \times 1. \\
3205 &= (9 + 87) \times 6 \times 5 + 4 + 321. \\
3206 &= 98 + 7 \times (6 + 5 + 432 + 1). \\
3207 &= 9 \times 8 \times 7 \times 6 + 54 \times 3 + 21. \\
3208 &= (9 \times 87 + 6 + 5) \times 4 + 32 \times 1. \\
3209 &= 9 + 8 + 76 \times (5 + 4 + 32 + 1). \\
3210 &= 9 + 8 + 7 + 65 \times (4 + 3)^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3211 &= 1^2 \times 3 \times 4^5 + 67 + 8 \times 9. \\
3212 &= 1^2 + 3 \times 4^5 + 67 + 8 \times 9. \\
3213 &= 1 \times 2 \times 34 + 56 \times 7 \times 8 + 9. \\
3214 &= 1 + 2 \times 34 + 56 \times 7 \times 8 + 9. \\
3215 &= 12 + 3 \times 4^5 + 6 \times 7 + 89. \\
3216 &= 1 + 2 \times 3 + 456 \times 7 + 8 + 9. \\
3217 &= 1 \times 2^3 + 456 \times 7 + 8 + 9. \\
3218 &= 1 + 2^3 + 456 \times 7 + 8 + 9. \\
3219 &= 1^2 \times 3^4 \times 5 \times 6 + 789. \\
3220 &= 1^2 + 3^4 \times 5 \times 6 + 789. \\
3221 &= 1 \times 2 + 3^4 \times 5 \times 6 + 789. \\
3222 &= 1 + 2 + 3^4 \times 5 \times 6 + 789. \\
3223 &= 12 + 3 \times 4^5 + 67 + 8 \times 9. \\
3224 &= 12 + 3 + 456 \times 7 + 8 + 9. \\
3225 &= 1 \times 2 \times 3 \times 4 \times (56 + 78) + 9. \\
3226 &= 1^2 \times 3^4 + 56 \times 7 \times 8 + 9. \\
3227 &= 123 + 45 \times 67 + 89. \\
3228 &= 1^2 \times 3 \times 4^5 + 67 + 89. \\
3229 &= 12^3 + 4^5 + 6 \times 78 + 9. \\
3230 &= 1 \times 2 + 3 \times 4^5 + 67 + 89. \\
3231 &= 12 + 3^4 \times 5 \times 6 + 789. \\
3232 &= 1 \times 23 + 456 \times 7 + 8 + 9. \\
3233 &= 1 + 23 + 456 \times 7 + 8 + 9. \\
3234 &= 1^2 + (3 + 45) \times 67 + 8 + 9. \\
3235 &= 1 \times 2 + (3 + 45) \times 67 + 8 + 9. \\
3236 &= 1 + 2 + (3 + 45) \times 67 + 8 + 9. \\
3237 &= 1 \times 23 \times 4 + 56 \times 7 \times 8 + 9. \\
3238 &= 12 + 3^4 + 56 \times 7 \times 8 + 9. \\
3239 &= 1 \times 2 + 3 \times (456 + 7 \times 89). \\
3240 &= 12 + 3 \times 4^5 + 67 + 89. \\
3241 &= 1 + 2 \times 3 \times 456 + 7 \times 8 \times 9. \\
3242 &= 12 + (3 + 456) \times 7 + 8 + 9. \\
3243 &= 123 + 4 \times 5 \times (67 + 89). \\
3244 &= (1 \times 2 + 3 + 456) \times 7 + 8 + 9. \\
3245 &= 12 \times 3 + 456 \times 7 + 8 + 9. \\
3246 &= 1 + (2 + 3) \times (4 \times 5 + 6 + 7 \times 89). \\
3247 &= (1 + 2) \times 34 + 56 \times 7 \times 8 + 9. \\
3248 &= (1 + 2)^3 \times (4 + 5) \times (6 + 7) + 89. \\
3249 &= 12 + 3 \times (456 + 7 \times 89). \\
3250 &= 1 + (2 + 3) \times 45 + 6 \times 7 \times 8 \times 9. \\
3251 &= (1 + 2 + 3 + 456) \times 7 + 8 + 9. \\
3252 &= 1 \times 2 \times 3 \times (4 \times 5 + 6 \times (78 + 9)). \\
3253 &= (1 + 2)^3 \times 4 + 56 \times 7 \times 8 + 9. \\
3254 &= (12 + 34) \times 5 + 6 \times 7 \times 8 \times 9. \\
3255 &= 123 \times 4 \times 5 + 6 + 789. \\
3256 &= 1 \times (2 + 3)^4 \times 5 + 6 \times 7 + 89. \\
3257 &= (1 + 2 \times 3) \times 456 + 7 \times 8 + 9. \\
3258 &= 1 \times 2 \times 3 \times (456 + 78 + 9). \\
3259 &= (1 + 2^3 + 4) \times 5 \times (6 \times 7 + 8) + 9. \\
3260 &= (1 + 2 \times 34) \times (5 + 6 \times 7) + 8 + 9. \\
3261 &= 1^2 \times 3 \times 4^5 + (6 + 7 + 8) \times 9. \\
3262 &= 12^3 + 4^5 + 6 + 7 \times 8 \times 9. \\
3263 &= 1 \times 234 + 5 + 6 \times 7 \times 8 \times 9. \\
3264 &= 1 \times 23 \times 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
3265 &= 1 + 23 \times 4 \times 5 \times 6 + 7 \times 8 \times 9. \\
3266 &= 1 + (2^3 + 456) \times 7 + 8 + 9. \\
3267 &= 1^2 \times 3 + 456 \times 7 + 8 \times 9. \\
3268 &= 1^2 + 3 + 456 \times 7 + 8 \times 9. \\
3269 &= 1 \times 2 + 3 + 456 \times 7 + 8 \times 9. \\
3270 &= 1 \times 2 \times 3 + 456 \times 7 + 8 \times 9. \\
3271 &= 1 + 2 \times 3 + 456 \times 7 + 8 \times 9. \\
3272 &= 123 + 4 + 56 \times 7 \times 8 + 9. \\
3273 &= 1 + 2^3 + 456 \times 7 + 8 \times 9. \\
3274 &= 12^3 + 4^5 + 6 \times (78 + 9). \\
3275 &= (12 + 34) \times (56 + 7 + 8) + 9. \\
3276 &= 1 \times 234 \times (5 + 6) + 78 \times 9. \\
3277 &= 123 \times (4 \times 5 + 6) + 7 + 8 \times 9. \\
3278 &= (12 + 34) \times 56 + 78 \times 9. \\
3279 &= 12 + 3 + 456 \times 7 + 8 \times 9. \\
3280 &= 1 + (23 \times 4 \times 5 + 6) \times 7 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3211 &= 9 \times (8 + 76 + 5) \times 4 + 3 \times 2 + 1. \\
3212 &= 9 - 8 \times 7 + 6 \times 543 + 2 - 1. \\
3213 &= (9 + 8 \times 76) \times 5 + 4 \times 32 \times 1. \\
3214 &= (98 + 7) \times 6 \times 5 + 43 + 21. \\
3215 &= 98 + (7 + 65) \times 43 + 21. \\
3216 &= (98 + 7) \times 6 \times 5 + 4^3 + 2 \times 1. \\
3217 &= (98 + 7) \times 6 \times 5 + 4 + 3 \times 21. \\
3218 &= (9 + 8 + 7 \times 6) \times 54 + 32 \times 1. \\
3219 &= (9 + 8 + 7 \times 6) \times 54 + 32 + 1. \\
3220 &= (9 + 87 + 65) \times 4 \times (3 + 2) \times 1. \\
3221 &= 98 + 765 \times 4 + 3 \times 21. \\
3222 &= 9 \times (8 \times 7 + 6) \times 5 + 432 \times 1. \\
3223 &= 9 + 8 + 7 \times 65 \times (4 + 3) + 21. \\
3224 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times (3^2 + 1). \\
3225 &= 9 + 8 \times (7 + 6 + 54) \times 3 \times 2 \times 1. \\
3226 &= (9 + 8) \times (76 + 5) + 43^2 \times 1. \\
3227 &= 9 + 87 + 6 + 5^4 \times (3 + 2) \times 1. \\
3228 &= 9 \times (8 + 76 + 5) \times 4 + 3 + 21. \\
3229 &= (9 \times 8 \times 7 + 6 \times 5 + 4) \times 3 \times 2 + 1. \\
3230 &= 9 + 87 \times (6 \times 5 + 4 + 3) + 2 \times 1. \\
3231 &= 9 + 87 \times (6 \times 5 + 4 + 3) + 2 + 1. \\
3232 &= (9 + 8 \times 76) \times 5 + (4 + 3) \times 21. \\
3233 &= 9 + (8 \times 7 + 6) \times (5 \times 4 + 32 \times 1). \\
3234 &= ((9 + 8 \times 7) \times 6) \times 5 + 4 \times 321. \\
3235 &= (98 + 7) \times 6 \times 5 + 4^3 + 21. \\
3236 &= (98 + 7) \times 6 \times 5 + 43 \times 2 \times 1. \\
3237 &= 987 + 6 \times (54 + 321). \\
3238 &= 9 + 8 \times (7 + 6) + 5^4 \times (3 + 2) \times 1. \\
3239 &= 98 \times (7 + 6 + 5 \times 4) + 3 + 2 \times 1. \\
3240 &= (98 + 7 + 6 \times 5) \times 4 \times 3 \times 2 \times 1. \\
3241 &= (98 + 7 + 6 \times 5) \times 4 \times 3 \times 2 + 1. \\
3242 &= 9 \times 8 \times 7 \times 6 + 5 \times 43 + 2 + 1. \\
3243 &= (98 + 76 \times 5 \times 4 + 3) \times 2 + 1. \\
3244 &= 98 \times (7 + 6 + 5 \times 4) + 3^2 + 1. \\
3245 &= (9 + 8 + 7 \times 6) \times 5 \times (4 + 3 \times 2 + 1). \\
3246 &= (98 + 7) \times 6 \times 5 + 4 \times (3 + 21). \\
3247 &= 98 + (7 \times 6 + 5) \times (4 + 3 \times 21). \\
3248 &= 98 + 7 \times 6 \times 5 \times (4 \times 3 + 2 + 1). \\
3249 &= (9 + 8 + 7 \times 6) \times 54 + 3 \times 21. \\
3250 &= 9 \times 8 \times 7 \times 6 + 5 \times (43 + 2) + 1. \\
3251 &= 9 + 8 + 7 \times (6 \times 5 + 432 \times 1). \\
3252 &= 9 + (8 + 7 \times 65) \times (4 + 3) + 2 \times 1. \\
3253 &= 9 + (8 + 7 \times 65) \times (4 + 3) + 2 + 1. \\
3254 &= 9 \times 8 + (7 + 6 \times 5) \times 43 \times 2 \times 1. \\
3255 &= 987 + (65 + 43) \times 21. \\
3256 &= (98 + 7) \times (6 + 5 \times 4 + 3 + 2) + 1. \\
3257 &= 9 + 8 \times (76 + 5 + 4 + 321). \\
3258 &= (9 \times 87 + 6 \times 5) \times 4 + 3 \times 2 \times 1. \\
3259 &= 9 \times 8 + 7 \times 65 \times (4 + 3) + 2 \times 1. \\
3260 &= 9 \times 8 \times 7 \times 6 + 5 \times 43 + 21. \\
3261 &= 9 + (87 \times 6 + 5 \times 4) \times 3 \times 2 \times 1. \\
3262 &= 9 + (87 \times 6 + 5 \times 4) \times 3 \times 2 + 1. \\
3263 &= 9 \times 8 + (7 + 6 + 5^4) \times (3 + 2) + 1. \\
3264 &= (9 + 8 + 76 + 5 + 4) \times 32 \times 1. \\
3265 &= (9 + 8 + 76 + 5 + 4) \times 32 + 1. \\
3266 &= 98 \times 7 + 6 \times 5 \times 43 \times 2 \times 1. \\
3267 &= 98 \times 7 + 6 \times 5 \times 43 \times 2 + 1. \\
3268 &= (9 + 8) \times ((7 \times 6 + 5) \times 4 + 3) + 21. \\
3269 &= 9 \times (87 + 6 \times 5 + 4) \times 3 + 2 \times 1. \\
3270 &= 9 + 87 + 6 \times (5 \times 4 + 3)^2 \times 1. \\
3271 &= (9 + 8 \times 7 + 6 + 5) \times 43 + 2 + 1. \\
3272 &= 98 \times 7 + 6 \times (5 \times 43 \times 2 + 1). \\
3273 &= 9 + 8 \times (7 \times 6 + 54 \times 3) \times 2 \times 1. \\
3274 &= 9 + (87 + 6 + 5 + 4) \times 32 + 1. \\
3275 &= (9 + 8 + 7 + 6 + 5^4) \times (3 + 2) \times 1. \\
3276 &= 9 \times 8 \times 7 + (6 + 5) \times 4 \times 3 \times 21. \\
3277 &= 9 \times (8 + 7 + 6 + 5) \times (4 + 3) \times 2 + 1. \\
3278 &= 9 \times 8 + 7 \times 65 \times (4 + 3) + 21. \\
3279 &= (98 + 7) \times 6 \times 5 + 4 \times 32 + 1. \\
3280 &= 9 + 8 + 7 + 6 + (54 + 3)^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3281 &= 1^{23} \times 456 \times 7 + 89. \\
3282 &= 1^{23} + 456 \times 7 + 89. \\
3283 &= 1 + 2 \times 3 + 4 \times (5 \times 6 + 789). \\
3284 &= 1^2 \times 3 + 456 \times 7 + 89. \\
3285 &= 1^2 + 3 + 456 \times 7 + 89. \\
3286 &= 1 \times 2 + 3 + 456 \times 7 + 89. \\
3287 &= 1 \times 2 \times 3 + 456 \times 7 + 89. \\
3288 &= 1 + 23 + 456 \times 7 + 8 \times 9. \\
3289 &= 12 \times 3 \times 4 + 56 \times 7 \times 8 + 9. \\
3290 &= 1 + 2^3 + 456 \times 7 + 89. \\
3291 &= (1 + 2)^3 + 456 \times 7 + 8 \times 9. \\
3292 &= (1^2 + 3 + 456) \times 7 + 8 \times 9. \\
3293 &= (12 + 3 + 4 + 5 + 6 + 7) \times 89. \\
3294 &= 1 \times 2 \times 3 \times 45 + 6 \times 7 \times 8 \times 9. \\
3295 &= 1 + 2 \times 3 \times 45 + 6 \times 7 \times 8 \times 9. \\
3296 &= 12 + 3 + 456 \times 7 + 89. \\
3297 &= 12^3 + 4^5 + 67 \times 8 + 9. \\
3298 &= 1 \times 2 \times (34 + 56 + 7) \times (8 + 9). \\
3299 &= 1 \times 23 + 4 \times (5 \times 6 + 789). \\
3300 &= 12 \times 3 + 456 \times 7 + 8 \times 9. \\
3301 &= 1 + (2 + 3) \times (4 + 567 + 89). \\
3302 &= 1^2 \times (3 + 456) \times 7 + 89. \\
3303 &= (12 + 3 \times 4 + 5 \times 67 + 8) \times 9. \\
3304 &= 1 \times 23 + 456 \times 7 + 89. \\
3305 &= 1 + 23 + 456 \times 7 + 89. \\
3306 &= (1 + 2 + 3 + 456) \times 7 + 8 \times 9. \\
3307 &= 1 \times 2 \times 3^4 + 56 \times 7 \times 8 + 9. \\
3308 &= 1 + 2 \times 3^4 + 56 \times 7 \times 8 + 9. \\
3309 &= 12 \times (3 + 4) \times 5 \times 6 + 789. \\
3310 &= 12^3 + 4^5 + (6 + 7 \times 8) \times 9. \\
3311 &= (123 + 4) \times (5 + 6 + 7 + 8) + 9. \\
3312 &= (1 \times 234 + 56 + 78) \times 9. \\
3313 &= 12^3 + 4 \times 56 \times 7 + 8 + 9. \\
3314 &= (12 + 3 + 456) \times 7 + 8 + 9. \\
3315 &= 1 + (2 + 3)^4 + 5 \times 67 \times 8 + 9. \\
3316 &= (1 \times 2 + 3 + 456) \times 7 + 89. \\
3317 &= 12 \times 3 + 456 \times 7 + 89. \\
3318 &= 123 + 45 \times (6 + 7 \times 8 + 9). \\
3319 &= 123 + 4 \times (5 + 6 \times 7) \times (8 + 9). \\
3320 &= (12 \times 34 + 56) \times 7 + 8 \times 9. \\
3321 &= 12 \times 3^4 + 5 \times 6 \times 78 + 9. \\
3322 &= 1 \times 2 + (3 + 4) \times (5 + 6 \times 78) + 9. \\
3323 &= (1 + 2 + 3 + 456) \times 7 + 89. \\
3324 &= (12 + 3) \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3325 &= 1 + 2 \times 3 \times (4 + 5 + 67 \times 8 + 9). \\
3326 &= 1 \times 2 + 3 \times (4^5 + 67 + 8 + 9). \\
3327 &= (1 + 2)^3 \times 4 \times 5 \times 6 + 78 + 9. \\
3328 &= 12^3 + 4^5 + 6 \times (7 + 89). \\
3329 &= (1 + 2 + 345 + 67) \times 8 + 9. \\
3330 &= 1 \times 2 \times 3 \times (45 + 6 + 7 \times 8 \times 9). \\
3331 &= 1 + 2 \times 3 \times (45 + 6 + 7 \times 8 \times 9). \\
3332 &= 123 + 456 \times 7 + 8 + 9. \\
3333 &= 1^2 + 34 \times (5 + 6 + 78 + 9). \\
3334 &= (1 \times 23 \times 4 \times 5 + 6) \times 7 + 8 \times 9. \\
3335 &= 1 + 2 + 34 \times (5 + 6 + 78 + 9). \\
3336 &= (1 + 2)^3 \times 4 \times 5 \times 6 + 7 + 89. \\
3337 &= (12 \times 34 + 56) \times 7 + 89. \\
3338 &= 1 + (2^3 + 456) \times 7 + 89. \\
3339 &= (1 \times 23 + 45 \times 6 + 78) \times 9. \\
3340 &= 1 + (23 + 45 \times 6 + 78) \times 9. \\
3341 &= 12 \times (3 + 45 \times 6) + 7 \times 8 + 9. \\
3342 &= 12 \times 3^4 + 5 \times 6 \times (7 + 8 \times 9). \\
3343 &= (1^2 + 3)^4 + (5 \times 67 + 8) \times 9. \\
3344 &= 12 + 34 \times (5 + 6 + 78 + 9). \\
3345 &= (1 + 2 \times 3 \times 4 + 56 \times 7) \times 8 + 9. \\
3346 &= 1 \times (2 + 3)^4 \times 5 + (6 + 7) \times (8 + 9). \\
3347 &= 12 \times (3 + 4 \times 56) + 7 \times 89. \\
3348 &= 12 \times 3 \times (4 + 5 + 67 + 8 + 9). \\
3349 &= 1 + 2 \times (34 + 5) \times 6 \times 7 + 8 \times 9. \\
3350 &= 1 \times (2 + 3)^4 + 5 \times (67 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3281 &= (9 \times 8 + 76) \times 5 \times 4 + 321. \\
3282 &= 9 + 87 + 65 \times (4 + 3)^2 + 1. \\
3283 &= 98 + (7 + 6) \times 5 \times (4 + 3)^2 \times 1. \\
3284 &= 9 + 8 + 7 + 6 \times 543 + 2 \times 1. \\
3285 &= 9 + 8 + 7 + 6 \times 543 + 2 + 1. \\
3286 &= 98 + 7 \times 65 \times (4 + 3) + 2 + 1. \\
3287 &= (9 \times (8 + 7) \times 6 + 5) \times 4 + 3^{(2+1)}. \\
3288 &= (987 + 654 + 3) \times 2 \times 1. \\
3289 &= (987 + 654 + 3) \times 2 + 1. \\
3290 &= 98 + 76 \times (5 + 4 + 32 + 1). \\
3291 &= 98 + 7 + 65 \times (4 + 3)^2 + 1. \\
3292 &= 9 + (8 \times 7 + 6 + 5) \times (4 + 3)^2 \times 1. \\
3293 &= 9 + 8 + 7 \times 6 \times (54 + 3 + 21). \\
3294 &= 9 \times 8 \times 7 \times 6 + 54 \times (3 + 2) \times 1. \\
3295 &= 9 + 8 + 7 + 654 \times (3 + 2) + 1. \\
3296 &= 98 \times 7 + 6 \times 5 \times (43 \times 2 + 1). \\
3297 &= 98 \times (7 + 6 + 5 \times 4) + 3 \times 21. \\
3298 &= 987 + 6 + (5 + 43)^2 + 1. \\
3299 &= 98 + 76 + 5^4 \times (3 + 2) \times 1. \\
3300 &= 98 + 76 + 5^4 \times (3 + 2) + 1. \\
3301 &= 9 + 8 \times 76 \times 5 + 4 \times 3 \times 21. \\
3302 &= 9 \times 8 \times 7 + 65 \times 43 + 2 + 1. \\
3303 &= 9 + 8 + 7 + 6 \times 543 + 21. \\
3304 &= 98 + 7 \times 65 \times (4 + 3) + 21. \\
3305 &= 9 + 8 \times 7 + 6 \times 54 \times (3^2 + 1). \\
3306 &= (9 + 87 \times 6 + 5 \times 4) \times 3 \times 2 \times 1. \\
3307 &= (9 + 87 \times 6 + 5 \times 4) \times 3 \times 2 + 1. \\
3308 &= 98 \times 7 + 6 \times (5 + 432 \times 1). \\
3309 &= 98 \times 7 + 6 \times (5 + 432) + 1. \\
3310 &= 9 + (8 + 7) \times (6 + 5) \times 4 \times (3 + 2) + 1. \\
3311 &= 98 + (7 \times 6 + 5 + 4) \times 3 \times 21. \\
3312 &= (9 + 87) \times 6 \times 5 + 432 \times 1. \\
3313 &= (9 + 87) \times 6 \times 5 + 432 + 1. \\
3314 &= 98 \times 7 + 6 \times (5 + 432 + 1). \\
3315 &= (9 \times 87 + 6 \times 5) \times 4 + 3 \times 21. \\
3316 &= (9 + 8) \times (7 + 6) \times (5 + 4 + 3 \times 2) + 1. \\
3317 &= 98 + (7 + 6 \times 5) \times (43 \times 2 + 1). \\
3318 &= (9 \times (8 + 7) + 6 + 5 + 4 \times 3) \times 21. \\
3319 &= 9 + (8 \times 76 + 54) \times (3 + 2 \times 1). \\
3320 &= 9 \times 8 \times 7 + 65 \times 43 + 21. \\
3321 &= 9 \times (8 + 7 + 6 + 5 \times 4) \times 3^2 \times 1. \\
3322 &= 9 \times (8 + 7 + 6 + 5 \times 4) \times 3^2 + 1. \\
3323 &= (9 \times 87 + 6 \times 54) \times 3 + 2 \times 1. \\
3324 &= (9 \times 87 + 6 \times 54) \times 3 + 2 + 1. \\
3325 &= 9 + 8 \times 7 + 6 \times 543 + 2 \times 1. \\
3326 &= 9 + 8 \times 7 + 6 \times 543 + 2 + 1. \\
3327 &= 987 + 65 \times 4 \times 3^2 \times 1. \\
3328 &= 987 + 65 \times 4 \times 3^2 + 1. \\
3329 &= 9 + 8 + (7 + 65) \times (43 + 2 + 1). \\
3330 &= 9 + 8 + 7 \times (6 + 5) \times 43 + 2 \times 1. \\
3331 &= 9 + 8 + 7 \times (6 + 5) \times 43 + 2 + 1. \\
3332 &= 98 + 7 \times (6 \times 5 + 432 \times 1). \\
3333 &= 9 \times 87 + 6 \times 5 \times (4^3 + 21). \\
3334 &= 9 \times 8 + 7 + 6 + (54 + 3)^2 \times 1. \\
3335 &= 9 + 8 \times 7 + 654 \times (3 + 2) \times 1. \\
3336 &= 9 + 8 \times 7 + 654 \times (3 + 2) + 1. \\
3337 &= (9 + 8 \times 76) \times 5 + 4 \times 3 \times 21. \\
3338 &= 9 + (8 + 7 \times 6 + 54) \times 32 + 1. \\
3339 &= 9 \times 8 + 7 + 6 \times 543 + 2 \times 1. \\
3340 &= 9 \times 8 + 7 + 6 \times 543 + 2 + 1. \\
3341 &= 9 + 8 \times 7 + 6 \times (543 + 2 + 1). \\
3342 &= (98 + 7 \times 65 + 4) \times 3 \times 2 \times 1. \\
3343 &= (98 + 7 \times 65 + 4) \times 3 \times 2 + 1. \\
3344 &= 9 + 8 \times 7 + 6 \times 543 + 21. \\
3345 &= 98 + 7 + 6 \times 54 \times (3^2 + 1). \\
3346 &= 9 \times 8 \times 7 \times 6 + 5 \times 4^3 + 2 \times 1. \\
3347 &= 9 \times 8 \times 7 \times 6 + 5 \times 4^3 + 2 + 1. \\
3348 &= 9 \times 8 \times 7 \times 6 + 54 \times 3 \times 2 \times 1. \\
3349 &= 9 \times 8 \times 7 \times 6 + 54 \times 3 \times 2 + 1. \\
3350 &= 9 \times 8 + 7 + 654 \times (3 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3351 &= (1 \times 23 \times 4 \times 5 + 6) \times 7 + 89. \\
3352 &= 1 + (23 \times 4 \times 5 + 6) \times 7 + 89. \\
3353 &= (1^2 \times 3^4 \times 5 + 6 + 7) \times 8 + 9. \\
3354 &= (1 + 2) \times (3 + 4^5 + 67) + 8 \times 9. \\
3355 &= 12 \times (3 + 45 \times 6) + 7 + 8 \times 9. \\
3356 &= 12^3 + 4 \times (5 \times 67 + 8 \times 9). \\
3357 &= 12 \times 3^4 + 5 \times (6 \times 78 + 9). \\
3358 &= (1 + 23 \times 4 \times 5 + 6) \times 7 + 89. \\
3359 &= 1 \times 2 \times 3 \times 456 + 7 \times 89. \\
3360 &= 1 + 2 \times 3 \times 456 + 7 \times 89. \\
3361 &= (1^2 + 3^4 \times 5 + 6 + 7) \times 8 + 9. \\
3362 &= 1 + 2 \times 34 + (5 \times 6 + 7) \times 89. \\
3363 &= 1 \times 234 \times (5 + 6) + 789. \\
3364 &= 1 \times 2 \times 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3365 &= (12 + 34) \times 56 + 789. \\
3366 &= 1 + 2 \times (34 + 5) \times 6 \times 7 + 89. \\
3367 &= (1 + 2 + 3 + 4) \times 5 \times 67 + 8 + 9. \\
3368 &= 12^3 + 4 \times 56 \times 7 + 8 \times 9. \\
3369 &= 1^2 \times 345 + 6 \times 7 \times 8 \times 9. \\
3370 &= 1^2 + 345 + 6 \times 7 \times 8 \times 9. \\
3371 &= 1 \times 2 + 345 + 6 \times 7 \times 8 \times 9. \\
3372 &= 1 + 2 + 345 + 6 \times 7 \times 8 \times 9. \\
3373 &= 1^2 + 3 + (4 + 56) \times 7 \times 8 + 9. \\
3374 &= 1 \times 2 + 3 + (4 + 56) \times 7 \times 8 + 9. \\
3375 &= 1 \times 2 \times 3 + (4 + 56) \times 7 \times 8 + 9. \\
3376 &= 1 + 2 \times 3 + 4 \times 56 \times (7 + 8) + 9. \\
3377 &= (1 + 23 + 456) \times 7 + 8 + 9. \\
3378 &= 1 + 2^3 \times (4 + 56) \times 7 + 8 + 9. \\
3379 &= 1 \times 234 + 56 \times 7 \times 8 + 9. \\
3380 &= 1 + 234 + 56 \times 7 \times 8 + 9. \\
3381 &= 12 + 345 + 6 \times 7 \times 8 \times 9. \\
3382 &= 1 + 23 \times (45 + 6 + 7 + 89). \\
3383 &= 1 \times 23 \times 4 \times 5 \times 6 + 7 \times 89. \\
3384 &= 1 + 23 \times 4 \times 5 \times 6 + 7 \times 89. \\
3385 &= 12^3 + 4 \times 56 \times 7 + 89. \\
3386 &= (12 + 3 + 456) \times 7 + 89. \\
3387 &= 123 + 456 \times 7 + 8 \times 9. \\
3388 &= (1 + 2) \times 3^4 + 56 \times 7 \times 8 + 9. \\
3389 &= 1 \times 2 + 3 + 45 \times (67 + 8) + 9. \\
3390 &= 1 \times 2 \times 3 + 45 \times (67 + 8) + 9. \\
3391 &= 1 + 2 \times 3 + 45 \times (67 + 8) + 9. \\
3392 &= 1 \times 23 + (4 + 56) \times 7 \times 8 + 9. \\
3393 &= 1 + 23 + (4 + 56) \times 7 \times 8 + 9. \\
3394 &= 12 + 3 + 4 + 5 \times (67 + 8) \times 9. \\
3395 &= 12 + 3 + 4 \times (56 + 789). \\
3396 &= 123 \times 4 \times 5 + (6 + 7) \times 8 \times 9. \\
3397 &= (1 + 2^3 + 4 + 5 \times 6) \times (7 + 8 \times 9). \\
3398 &= ((1 + 2)^3 + 456) \times 7 + 8 + 9. \\
3399 &= 1^{234} \times 5 \times 678 + 9. \\
3400 &= 1^{234} + 5 \times 678 + 9. \\
3401 &= (12 + 34) \times (5 + 67) + 89. \\
3402 &= 1 \times 23 + 4 + 5 \times (67 + 8) \times 9. \\
3403 &= 1^{23} \times 4 + 5 \times 678 + 9. \\
3404 &= 123 + 456 \times 7 + 89. \\
3405 &= 12 \times 3 + 4 \times 56 \times (7 + 8) + 9. \\
3406 &= 1^2 \times 3 + 4 + 5 \times 678 + 9. \\
3407 &= 1^2 + 3 + 4 + 5 \times 678 + 9. \\
3408 &= 1 \times 2 + 3 + 4 + 5 \times 678 + 9. \\
3409 &= 1 \times 2 \times 3 + 4 + 5 \times 678 + 9. \\
3410 &= 1 + 2 \times 3 + 4 + 5 \times 678 + 9. \\
3411 &= 1^2 \times 3 \times 4 + 5 \times 678 + 9. \\
3412 &= 1^2 + 3 \times 4 + 5 \times 678 + 9. \\
3413 &= 1 \times 2 + 3 \times 4 + 5 \times 678 + 9. \\
3414 &= 1 + 2 + 3 \times 4 + 5 \times 678 + 9. \\
3415 &= 12 \times 3 + 4 + 5 \times (67 + 8) \times 9. \\
3416 &= 12 \times 3 + 4 \times (56 + 789). \\
3417 &= 1^2 \times 3 \times 4^5 + 6 \times 7 \times 8 + 9. \\
3418 &= 12 + 3 + 4 + 5 \times 678 + 9. \\
3419 &= 1 \times 2 + 3 \times 4^5 + 6 \times 7 \times 8 + 9. \\
3420 &= 1 + 2 + 3 \times 4^5 + 6 \times 7 \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3351 &= 9 \times (8 \times (7 + 6) + 5 \times 4) \times 3 + 2 + 1. \\
3352 &= 9 + 87 + 6 + (54 + 3)^2 + 1. \\
3353 &= (9 \times 8 + 765) \times 4 + 3 + 2 \times 1. \\
3354 &= 9 \times 8 \times 7 \times 6 + 5 + 4 + 321. \\
3355 &= (9 \times 8 + 765) \times 4 + 3 \times 2 + 1. \\
3356 &= 9 + 87 + 6 \times 543 + 2 \times 1. \\
3357 &= 9 + 87 + 6 \times 543 + 2 + 1. \\
3358 &= 9 \times 8 + 7 + 6 \times 543 + 21. \\
3359 &= 9 \times 8 \times 7 \times 6 + 5 \times (4 + 3 \times 21). \\
3360 &= 98 + 7 + 6 + (54 + 3)^2 \times 1. \\
3361 &= 98 + 7 + 6 + (54 + 3)^2 + 1. \\
3362 &= 9 + (8 \times 7 + 6) \times 54 + 3 + 2 \times 1. \\
3363 &= 9 \times 87 + 6 \times 5 \times 43 \times 2 \times 1. \\
3364 &= 9 \times 87 + 6 \times 5 \times 43 \times 2 + 1. \\
3365 &= 98 + 7 + 6 \times 543 + 2 \times 1. \\
3366 &= 98 + 7 + 6 \times 543 + 2 + 1. \\
3367 &= 9 + 87 + 654 \times (3 + 2) + 1. \\
3368 &= (9 + (8 + 7 \times 6) \times 5) \times (4 + 3^2) + 1. \\
3369 &= 9 \times 87 + 6 \times (5 \times 43 \times 2 + 1). \\
3370 &= 9 + 8 \times 7 \times (6 \times (5 + 4) + 3 \times 2) + 1. \\
3371 &= 9 + 8 \times 7 \times (6 + 54) + 3 - 2 + 1. \\
3372 &= (9 \times 8 + 765) \times 4 + 3 + 21. \\
3373 &= (9 \times (87 + 6) + 5) \times 4 + 3 + 2 \times 1. \\
3374 &= 9 + 8 \times 76 \times 5 + 4 + 321. \\
3375 &= 9 + 87 + 6 \times 543 + 21. \\
3376 &= 98 + 7 + 654 \times (3 + 2) + 1. \\
3377 &= 9 + 8 + 7 \times (6 + 5 + 4) \times 32 \times 1. \\
3378 &= 9 + 8 + 7 \times (6 + 5 + 4) \times 32 + 1. \\
3379 &= (9 + 8) \times 7 + 6 \times 543 + 2 \times 1. \\
3380 &= (9 + 8) \times 7 + 6 \times 543 + 2 + 1. \\
3381 &= 98 + 7 + 6 \times (543 + 2 + 1). \\
3382 &= 9 \times 8 + (7 + 6 \times 54) \times (3^2 + 1). \\
3383 &= 9 \times 87 + 65 \times 4 \times (3^2 + 1). \\
3384 &= 98 + 7 + 6 \times 543 + 21. \\
3385 &= 9 \times 8 + 7 \times (6 + 5) \times 43 + 2 \times 1. \\
3386 &= 9 \times 8 + 7 \times (6 + 5) \times 43 + 2 + 1. \\
3387 &= (9 \times 8 + 7 \times 6 \times 5) \times 4 \times 3 + 2 + 1. \\
3388 &= (98 + 7 \times 6 \times 5) \times (4 + 3 \times 2 + 1). \\
3389 &= 9 + (8 \times 7 + 6) \times 54 + 32 \times 1. \\
3390 &= 9 + (8 \times 7 + 6) \times 54 + 32 + 1. \\
3391 &= (9 + 8 + 7 + 654) \times (3 + 2) + 1. \\
3392 &= 987 + 65 \times (4 + 32 + 1). \\
3393 &= 9 \times 87 + 6 \times 5 \times (43 \times 2 + 1). \\
3394 &= 9 \times (8 \times 7 \times 6 + 5) + 4 + 321. \\
3395 &= 9 + 8 \times (76 \times 5 + 43) + 2 \times 1. \\
3396 &= 9 \times (8 \times 7 + 65 + 4) \times 3 + 21. \\
3397 &= (9 \times 87 + 65) \times 4 + 3 + 2 \times 1. \\
3398 &= 9 + 8 + 765 \times 4 + 321. \\
3399 &= 9 \times 8 \times 7 \times 6 + 54 + 321. \\
3400 &= (9 + 8) \times (7 + 65 + 4 \times 32 \times 1). \\
3401 &= (9 \times 87 + 65) \times 4 + 3^2 \times 1. \\
3402 &= 9 + 8 \times (76 \times 5 + 4) + 321. \\
3403 &= 98 + (7 + 654) \times (3 + 2) \times 1. \\
3404 &= 9 \times 8 + 7 \times (6 + 5) \times 43 + 21. \\
3405 &= (9 \times 8 + 7 \times 6 \times 5) \times 4 \times 3 + 21. \\
3406 &= (9 \times 8 + 76) \times (5 \times 4 + 3) + 2 \times 1. \\
3407 &= (9 \times 8 \times 7 + 6 + 5^4) \times 3 + 2 \times 1. \\
3408 &= 9 + 8 + 7 + 6 \times (543 + 21). \\
3409 &= (9 + 8 + 7) \times 65 + 43^2 \times 1. \\
3410 &= (9 + 8 \times 76) \times 5 + 4 + 321. \\
3411 &= 98 + 7 \times (6 + 5) \times 43 + 2 \times 1. \\
3412 &= 98 + 7 \times (6 + 5) \times 43 + 2 + 1. \\
3413 &= 9 + (8 + 7 + 6) \times 54 \times 3 + 2 \times 1. \\
3414 &= 9 \times (8 + 7) + 6 \times 543 + 21. \\
3415 &= (9 + 8) \times 7 \times (6 + 5 \times 4) + 321. \\
3416 &= (9 \times 87 + 65) \times 4 + 3 + 21. \\
3417 &= 9 \times (8 \times 7 + 6 \times 5) \times 4 + 321. \\
3418 &= 9 + 8 \times (7 \times (6 + 54) + 3 \times 2) + 1. \\
3419 &= 9 + (8 \times 7 + 6) \times 5 \times (4 + 3 \times 2 + 1). \\
3420 &= 9 \times 8 \times 7 + 6 \times 54 \times 3^2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3421 &= 12^3 + 4 + 5 \times 6 \times 7 \times 8 + 9. \\
3422 &= (1 + 2 + 3 + 4) \times 5 \times 67 + 8 \times 9. \\
3423 &= 12 + 3 \times 4 + 5 \times 678 + 9. \\
3424 &= 1 + 2 \times 3 \times 4 + 5 \times 678 + 9. \\
3425 &= (12 + 3) \times 4 \times 56 + 7 \times 8 + 9. \\
3426 &= 1 \times 23 + 4 + 5 \times 678 + 9. \\
3427 &= 1 + 23 + 4 + 5 \times 678 + 9. \\
3428 &= 12^3 + 4 \times 5 \times (6 + 7 + 8 \times 9). \\
3429 &= 12 + 3 \times 4^5 + 6 \times 7 \times 8 + 9. \\
3430 &= 1^2 + 3^4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3431 &= 1 \times 2^3 \times 4 + 5 \times 678 + 9. \\
3432 &= 1 + 2^3 \times 4 + 5 \times 678 + 9. \\
3433 &= 1^2 \times 34 + 5 \times 678 + 9. \\
3434 &= 1^2 + 34 + 5 \times 678 + 9. \\
3435 &= 1 \times 2 + 34 + 5 \times 678 + 9. \\
3436 &= 1 + 2 + 34 + 5 \times 678 + 9. \\
3437 &= 12 \times 34 + 5 + 6 \times 7 \times 8 \times 9. \\
3438 &= 1 \times 2 \times 3 \times 456 + 78 \times 9. \\
3439 &= 12 \times 3 + 4 + 5 \times 678 + 9. \\
3440 &= 1 + (2 + 3 + 45) \times 67 + 89. \\
3441 &= 12 + 3^4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3442 &= 1 + (2 + 3 \times 4 + 5 \times 6) \times 78 + 9. \\
3443 &= 1 + (23 + 456) \times 7 + 89. \\
3444 &= 1 + 2 \times 34 + 5 \times (67 + 8) \times 9. \\
3445 &= 12 + 34 + 5 \times 678 + 9. \\
3446 &= 1 + 2 \times 3 + 4 + 5 \times (678 + 9). \\
3447 &= (12 + 3) \times 4 \times 56 + 78 + 9. \\
3448 &= 1 + 2 \times 3 + 4 \times (5 + 6) \times 78 + 9. \\
3449 &= (1 + 23 + 456) \times 7 + 89. \\
3450 &= 1 + 2^3 \times (4 + 56) \times 7 + 89. \\
3451 &= (1^2 + 3) \times 4 + 5 \times (678 + 9). \\
3452 &= 1 \times 2 \times 34 + (5 + 6 \times 7) \times 8 \times 9. \\
3453 &= 1 + 2 \times 34 + (5 + 6 \times 7) \times 8 \times 9. \\
3454 &= 12 + 3 + 4 + 5 \times (678 + 9). \\
3455 &= 1 \times (2 + 3) \times 4 + 5 \times (678 + 9). \\
3456 &= 12 + 3 + 4 \times (5 + 6) \times 78 + 9. \\
3457 &= 1 + 2 \times 3 \times 4 \times (5 + 67 + 8 \times 9). \\
3458 &= 1 \times 2 + 3^4 + 5 \times (67 + 8) \times 9. \\
3459 &= (12 + 3) \times 4 + 5 \times 678 + 9. \\
3460 &= 12^3 + 4^5 + 6 + 78 \times 9. \\
3461 &= (12 \times 3 + 456) \times 7 + 8 + 9. \\
3462 &= 1 \times 23 \times 4 \times 5 \times 6 + 78 \times 9. \\
3463 &= 1 + 23 \times 4 \times 5 \times 6 + 78 \times 9. \\
3464 &= 1 \times 23 + 4 \times (5 + 6) \times 78 + 9. \\
3465 &= 1 + 23 + 4 \times (5 + 6) \times 78 + 9. \\
3466 &= 12^3 + 4^5 + 6 \times 7 \times (8 + 9). \\
3467 &= 1 \times 2 \times 34 + 5 \times 678 + 9. \\
3468 &= 1 + 2 \times 34 + 5 \times 678 + 9. \\
3469 &= 1^2 \times 34 + 5 \times (678 + 9). \\
3470 &= 1^2 + 34 + 5 \times (678 + 9). \\
3471 &= 1 \times 2 + 34 + 5 \times (678 + 9). \\
3472 &= 1 + 2 + 34 + 5 \times (678 + 9). \\
3473 &= 1 \times 23 \times (4 \times 5 + 6 \times 7 + 89). \\
3474 &= (12 \times 3 + 45) \times 6 \times 7 + 8 \times 9. \\
3475 &= 12 \times 3 + 4 + 5 \times (678 + 9). \\
3476 &= 1 \times 23 \times 4 \times (5 \times 6 + 7) + 8 \times 9. \\
3477 &= 12 \times 3 + 4 \times (5 + 6) \times 78 + 9. \\
3478 &= 1^2 + 3 \times (4 \times 5 + 67 \times (8 + 9)). \\
3479 &= (12 + 3) \times 4 \times 56 + 7 \times (8 + 9). \\
3480 &= 1^2 \times 3456 + 7 + 8 + 9. \\
3481 &= 1^2 + 3456 + 7 + 8 + 9. \\
3482 &= 1 \times 2 + 3456 + 7 + 8 + 9. \\
3483 &= 1 + 2 + 3456 + 7 + 8 + 9. \\
3484 &= 1 \times 23 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3485 &= 1 + 23 \times 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3486 &= (123 \times 4 + 5) \times 6 + 7 \times 8 \times 9. \\
3487 &= -1 \times 2 - 3^4 + 5 \times 6 \times 7 \times (8 + 9). \\
3488 &= 1 \times 2^3 \times 4 \times (5 \times 6 + 7 + 8 \times 9). \\
3489 &= (12 + 34 + 5) \times 67 + 8 \times 9. \\
3490 &= 1 + (2 \times 3 + 45) \times 67 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3421 &= 9 \times 8 \times 7 + 6 \times 54 \times 3^2 + 1. \\
3422 &= 9 + (8 + 765) \times 4 + 321. \\
3423 &= 98 + 76 + (54 + 3)^2 \times 1. \\
3424 &= 98 + 76 + (54 + 3)^2 + 1. \\
3425 &= (9 \times 87 + 65) \times 4 + 32 + 1. \\
3426 &= 9 + 8 + 7 + 6 \times (5 + 4) \times 3 \times 21. \\
3427 &= 9 \times (8 \times 7 + 6 \times 54) + 3 \times 2 + 1. \\
3428 &= (9 + 8 \times 76) \times 5 + (4 + 3)^{(2+1)}. \\
3429 &= (9 + 8 \times 7 + 6) \times (5 + 43) + 21. \\
3430 &= 98 + 7 \times (6 + 5) \times 43 + 21. \\
3431 &= (9 \times (87 + 6) + 5) \times 4 + 3 \times 21. \\
3432 &= 9 + 8 + 7 + 6 + 54 \times 3 \times 21. \\
3433 &= 9 \times 8 + 7 \times (6 + 5 + 4) \times 32 + 1. \\
3434 &= 98 \times (7 + 6) + 5 \times 432 \times 1. \\
3435 &= 98 \times (7 + 6) + 5 \times 432 + 1. \\
3436 &= 9 + 8 + 76 \times 5 \times (4 + 3 + 2) - 1. \\
3437 &= 9 + 8 + 76 \times 5 \times (4 + 3 + 2) \times 1. \\
3438 &= (9 \times 8 \times 7 + 65 + 4) \times 3 \times 2 \times 1. \\
3439 &= (9 \times 8 \times 7 + 65 + 4) \times 3 \times 2 + 1. \\
3440 &= 9 + 8 + 7 \times (6 + (5 \times 4 + 3) \times 21). \\
3441 &= 9 + 8 \times (7 + 6) \times (5 + 4 + 3 + 21). \\
3442 &= 98 + 76 \times (5 \times 4 + 3 + 21). \\
3443 &= 9 + 8 \times 7 + (6 + 5 + 4)^3 + 2 + 1. \\
3444 &= 9 \times (8 \times 7 + 6 \times 54) + 3 + 21. \\
3445 &= (987 + 6 + (5 + 4)^3) \times 2 + 1. \\
3446 &= 9 + (8 + 7 \times (65 + 4)) \times (3 \times 2 + 1). \\
3447 &= 9 \times (8 \times 7 + 6) + (5 + 4) \times 321. \\
3448 &= 9 \times 8 \times (7 \times 6 + 5) + 43 + 21. \\
3449 &= (9 + 8 + 765) \times 4 + 321. \\
3450 &= 9 \times 8 \times (7 \times 6 + 5) + 4^3 + 2 \times 1. \\
3451 &= 9 + (8 + 7 + 65) \times 43 + 2 \times 1. \\
3452 &= (9 + 8) \times 76 + 5 \times 432 \times 1. \\
3453 &= 9 \times 8 + 765 \times 4 + 321. \\
3454 &= 9 \times 8 \times 7 \times 6 + 5 \times 43 \times 2 \times 1. \\
3455 &= 9 \times 8 \times 7 \times 6 + 5 \times 43 \times 2 + 1. \\
3456 &= (9 + 8 + 7 + 6 \times 5) \times (43 + 21). \\
3457 &= (98 + 765) \times 4 + 3 + 2 \times 1. \\
3458 &= (98 + 765) \times 4 + 3 + 2 + 1. \\
3459 &= (98 + 765) \times 4 + 3 \times 2 + 1. \\
3460 &= 98 \times 7 + 65 \times 43 - 21. \\
3461 &= 9 + 8 + 7 \times 6 + 54 \times 3 \times 21. \\
3462 &= 9 \times 8 \times 7 \times 6 + 5 + 432 + 1. \\
3463 &= 9 \times 8 + 7 + 6 \times (543 + 21). \\
3464 &= (9 + 8 \times 7 \times 6 \times 5 + 43) \times 2 \times 1. \\
3465 &= 9 + 8 \times (7 + 6 + 5) \times 4 \times 3 \times 2 \times 1. \\
3466 &= 9 + (87 \times 6 + 54) \times 3 \times 2 + 1. \\
3467 &= 9 + 8 \times 7 + 6 \times (5 + 4) \times 3 \times 21. \\
3468 &= 9 + 8 + 7 \times (6 + 54 \times 3^2 + 1). \\
3469 &= (98 \times 7 + 6) \times 5 + 4 + 3 + 2 \times 1. \\
3470 &= 9 + (8 + 7 + 65) \times 43 + 21. \\
3471 &= 9 \times 8 \times (7 \times 6 + 5) + 43 \times 2 + 1. \\
3472 &= (9 + 8) \times 7 \times (6 + 5 \times 4 + 3) + 21. \\
3473 &= 9 + 8 \times 7 + 6 + 54 \times 3 \times 21. \\
3474 &= (98 \times 7 + 6) \times 5 + 4 \times 3 + 2 \times 1. \\
3475 &= (98 + 7) \times 6 \times 5 + 4 + 321. \\
3476 &= (98 + 765) \times 4 + 3 + 21. \\
3477 &= (9 \times 8 \times 7 + 654) \times 3 + 2 + 1. \\
3478 &= (9 + 8 + 7 \times (6 + 5)) \times (4 + 32 + 1). \\
3479 &= 98 + 765 \times 4 + 321. \\
3480 &= 9 + 87 + 6 \times (543 + 21). \\
3481 &= 9 + 8 \times 76 \times 5 + 432 \times 1. \\
3482 &= 9 + 8 \times 76 \times 5 + 432 + 1. \\
3483 &= 98 \times 7 + 65 \times 43 + 2 \times 1. \\
3484 &= 98 \times 7 + 65 \times 43 + 2 + 1. \\
3485 &= (98 + 765) \times 4 + 32 + 1. \\
3486 &= (98 + 76) \times 5 \times 4 + 3 + 2 + 1. \\
3487 &= 9 \times 8 + 7 + 6 + 54 \times 3 \times 21. \\
3488 &= (98 \times 7 + 6) \times 5 + 4 + 3 + 21. \\
3489 &= (98 + 76) \times 5 \times 4 + 3^2 \times 1. \\
3490 &= 9 + (8 \times (7 + 65) + 4) \times 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3491 &= 1 \times 23 \times 4 + 5 \times 678 + 9. \\
3492 &= 12 + 3456 + 7 + 8 + 9. \\
3493 &= 1 \times 23 \times 4 \times (5 \times 6 + 7) + 89. \\
3494 &= 1 + 23 \times 4 \times (5 \times 6 + 7) + 89. \\
3495 &= (1 + 23) \times 4 + 5 \times 678 + 9. \\
3496 &= (12 + 34) \times (5 + 6 + 7 \times 8 + 9). \\
3497 &= 1 \times 2^3 \times 4 \times (5 + (6 + 7) \times 8) + 9. \\
3498 &= 1 \times 2 \times 3 \times (4 + 567) + 8 \times 9. \\
3499 &= 1 + 2 \times 3 \times (4 + 567) + 8 \times 9. \\
3500 &= (1 + 2 + 3 + 4) \times (5 + 6 \times 7 \times 8 + 9). \\
3501 &= (1 + 2 \times 3 + 45) \times 67 + 8 + 9. \\
3502 &= 123 + 4 + 5 \times (67 + 8) \times 9. \\
3503 &= 123 + 4 \times (56 + 789). \\
3504 &= 1 + 2 \times 34 + 5 \times (678 + 9). \\
3505 &= 1 \times (2 + 3)^4 + 5 \times 6 \times (7 + 89). \\
3506 &= (12 + 34 + 5) \times 67 + 89. \\
3507 &= 123 + 45 \times (67 + 8) + 9. \\
3508 &= 12^3 + 4^5 + (6 + 78) \times 9. \\
3509 &= 12 \times (3^4 + 5 \times 6 \times 7) + 8 + 9. \\
3510 &= 12 \times (34 + 5) \times 6 + 78 \times 9. \\
3511 &= 1^2 + (3 + 45 + 6) \times (7 \times 8 + 9). \\
3512 &= 12 \times 3 + 4 \times (5 + 6) \times (7 + 8 \times 9). \\
3513 &= 12 \times (3 + 4 \times 56) + 789. \\
3514 &= 1^2 + 3 + (4 + 5) \times 6 \times (7 \times 8 + 9). \\
3515 &= 1 \times 2 \times 3 \times (4 + 567) + 89. \\
3516 &= 1 + 2 \times 3 \times (4 + 567) + 89. \\
3517 &= 1^2 + 3^4 + 5 \times (678 + 9). \\
3518 &= 1 \times (2 + 3^4) + 5 \times (678 + 9). \\
3519 &= (1^2 \times 34 + 5 + 6) \times 78 + 9. \\
3520 &= 1^2 + (34 + 5 + 6) \times 78 + 9. \\
3521 &= 123 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
3522 &= 1^2 + 3456 + 7 \times 8 + 9. \\
3523 &= 1 \times 2 + 3456 + 7 \times 8 + 9. \\
3524 &= 1 + 2 + 3456 + 7 \times 8 + 9. \\
3525 &= 1 \times 2 \times 3 \times 456 + 789. \\
3526 &= 123 + 4 + 5 \times 678 + 9. \\
3527 &= 1 \times 23 \times 4 + 5 \times (678 + 9). \\
3528 &= 1 + 23 \times 4 + 5 \times (678 + 9). \\
3529 &= 1 + 2 \times 3 \times (4 + 567 + 8 + 9). \\
3530 &= (12 + 3^4) \times (5 \times 6 + 7) + 89. \\
3531 &= 12 + (34 + 5 + 6) \times 78 + 9. \\
3532 &= 1 + 2 \times (3^4 + 5 \times 6 \times 7 \times 8) + 9. \\
3533 &= 12 + 3456 + 7 \times 8 + 9. \\
3534 &= (1 + 2) \times 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
3535 &= 1^2 \times 3456 + 7 + 8 \times 9. \\
3536 &= 1^2 + 3456 + 7 + 8 \times 9. \\
3537 &= 1 \times 2 + 3456 + 7 + 8 \times 9. \\
3538 &= 1 + 2 + 3456 + 7 + 8 \times 9. \\
3539 &= 1 \times 2 + (3 + 4 + 56) \times 7 \times 8 + 9. \\
3540 &= 1 + 2 + (3 + 4 + 56) \times 7 \times 8 + 9. \\
3541 &= 1 + 2 \times 3 \times (45 + 67 \times 8 + 9). \\
3542 &= 1 \times 2 + 3 \times 4 \times 5 \times (6 \times 7 + 8 + 9). \\
3543 &= 12 \times 3 \times 4 + 5 \times 678 + 9. \\
3544 &= 1^2 + 3456 + 78 + 9. \\
3545 &= 1 \times 2 + 3456 + 78 + 9. \\
3546 &= 1 + 2 + 3456 + 78 + 9. \\
3547 &= 12 + 3456 + 7 + 8 \times 9. \\
3548 &= 1 \times 2 + 3 \times 4^5 + 6 \times (7 + 8 \times 9). \\
3549 &= 1 \times 23 \times 4 \times 5 \times 6 + 789. \\
3550 &= 1 + 23 \times 4 \times 5 \times 6 + 789. \\
3551 &= 1 \times 2 + 3 \times 4^5 + 6 \times 78 + 9. \\
3552 &= 1 + 2 + 3 \times 4^5 + 6 \times 78 + 9. \\
3553 &= 12 \times 34 + 56 \times 7 \times 8 + 9. \\
3554 &= 1 \times 2 + 3456 + 7 + 89. \\
3555 &= 12 + 3456 + 78 + 9. \\
3556 &= (1 + 2 \times 3 + 45) \times 67 + 8 \times 9. \\
3557 &= 1 \times 2 + 3 \times (4 + 5 + 6) \times (7 + 8 \times 9). \\
3558 &= 12 + 3 \times 4^5 + 6 \times (7 + 8 \times 9). \\
3559 &= 12 + 3 + 4 + 5 \times (6 + 78 \times 9). \\
3560 &= (12 \times 3 + 4) \times (5 + 67 + 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3491 &= (98 \times 7 + 6) \times 5 + 4 + 3^{(2+1)}. \\
3492 &= 9 \times 87 + (65 + 4^3) \times 21. \\
3493 &= (98 \times 7 + 6) \times 5 + 4 \times 3 + 21. \\
3494 &= 9 \times 8 \times 7 + 65 \times (43 + 2 + 1). \\
3495 &= 9 + 8 + 76 + 54 \times 3 \times 21. \\
3496 &= (98 \times 7 + 6) \times 5 + 4 + 32 \times 1. \\
3497 &= (9 \times 87 + 6 + 5) \times 4 + 321. \\
3498 &= 9 + 87 + 6 \times (5 + 4) \times 3 \times 21. \\
3499 &= 9 + 8 + (7 \times 6 + 5 + 4 \times 3)^2 + 1. \\
3500 &= 98 + 7 \times 6 \times (5 + 4) \times 3^2 \times 1. \\
3501 &= 9 + (8 + 7) \times 6 + 54 \times 3 \times 21. \\
3502 &= 98 \times 7 + 65 \times 43 + 21. \\
3503 &= 9 + 8 + (76 + 5) \times 43 + 2 + 1. \\
3504 &= 9 + 87 + 6 + 54 \times 3 \times 21. \\
3505 &= (98 \times 7 + 6) \times 5 + 43 + 2 \times 1. \\
3506 &= 9 + 8 \times 76 + (5 + 4) \times 321. \\
3507 &= 98 + 7 + 6 \times (5 + 4) \times 3 \times 21. \\
3508 &= (9 \times 8 + 7) \times (6 + 5) \times 4 + 32 \times 1. \\
3509 &= (9 \times 8 + 7) \times (6 + 5) \times 4 + 32 + 1. \\
3510 &= 9 \times 8 \times 7 \times 6 + 54 \times 3^2 \times 1. \\
3511 &= 9 \times 8 \times 7 \times 6 + 54 \times 3^2 \times 1. \\
3512 &= (98 + 76) \times 5 \times 4 + 32 \times 1. \\
3513 &= 98 + 7 + 6 + 54 \times 3 \times 21. \\
3514 &= 9 + 8 + 76 \times (5 \times 4 + 3) \times 2 + 1. \\
3515 &= (98 + 765) \times 4 + 3 \times 21. \\
3516 &= 9 \times 8 + 7 \times 6 + 54 \times 3 \times 21. \\
3517 &= (9 + 8 \times 76) \times 5 + 432 \times 1. \\
3518 &= 98 + 76 \times 5 \times (4 + 3 + 2) \times 1. \\
3519 &= (98 + 7) \times 6 + (5 + 4) \times 321. \\
3520 &= 9 \times (8 + 76 \times 5) + 4 + 3 + 21. \\
3521 &= (9 + 8) \times 7 + 6 \times (5 + 4) \times 3 \times 21. \\
3522 &= 9 + 87 \times 6 \times 5 + 43 \times 21. \\
3523 &= 9 \times 8 + 7 \times (6 + 54 \times 3^2 + 1). \\
3524 &= (98 \times 7 + 6) \times 5 + 43 + 21. \\
3525 &= 9 \times (8 + 76 + 5) \times 4 + 321. \\
3526 &= (98 \times 7 + 6) \times 5 + 4^3 + 2 \times 1. \\
3527 &= (98 \times 7 + 6) \times 5 + 4 + 3 \times 21. \\
3528 &= (98 + 7 + 6 + 54 + 3) \times 21. \\
3529 &= (9 + 8 + 76 + 5) \times 4 \times 3^2 + 1. \\
3530 &= 98 \times (7 + 6 + 5 \times 4 + 3) + 2 \times 1. \\
3531 &= 98 \times (7 + 6 + 5 \times 4 + 3) + 2 + 1. \\
3532 &= 9 + (8 + 7 \times 6 + 5) \times 4^3 + 2 + 1. \\
3533 &= 9 \times (87 + 6 + 5) \times 4 + 3 + 2 \times 1. \\
3534 &= 9 \times (8 + 7 \times 6) \times 5 + 4 \times 321. \\
3535 &= 9 \times (87 + 6 + 5) \times 4 + 3 \times 2 + 1. \\
3536 &= (9 + 8) \times (7 + 6) \times (5 + 4 + 3 \times 2 + 1). \\
3537 &= 9 \times (8 + 76 \times 5) + 43 + 2 \times 1. \\
3538 &= 9 + 8 \times 7 \times 6 \times 5 + 43^2 \times 1. \\
3539 &= 9 + 8 \times 7 \times 6 \times 5 + 43^2 + 1. \\
3540 &= 9 + (876 + 5) \times 4 + 3 \times 2 + 1. \\
3541 &= (9 + 8 + 7 \times 6) \times (54 + 3 \times 2) + 1. \\
3542 &= 98 + 7 \times 6 + 54 \times 3 \times 21. \\
3543 &= 9 + (876 + 5) \times 4 + 3^2 + 1. \\
3544 &= 9 \times 8 + 7 \times ((6 + 5) \times (43 + 2) + 1). \\
3545 &= (98 \times 7 + 6) \times 5 + 4^3 + 21. \\
3546 &= (98 \times 7 + 6) \times 5 + 43 \times 2 \times 1. \\
3547 &= (98 \times 7 + 6) \times 5 + 43 \times 2 + 1. \\
3548 &= (9 + 8) \times 7 \times 6 \times 5 - 43 + 21. \\
3549 &= (9 + 87 + 6 \times 5 + 43) \times 21. \\
3550 &= 9 \times 8 + 76 + 54 \times 3 \times 21. \\
3551 &= 9 \times 8 + 7 \times (65 + 432) \times 1. \\
3552 &= (9 + 87 + 6 + 5 + 4) \times 32 \times 1. \\
3553 &= (9 + 87 + 6 + 5 + 4) \times 32 + 1. \\
3554 &= 98 + (76 \times 5 + 4) \times 3^2 \times 1. \\
3555 &= 9 \times 87 + (6 + 5) \times 4 \times 3 \times 21. \\
3556 &= 9 \times (8 + 76 \times 5) + 43 + 21. \\
3557 &= 9 + (876 + 5) \times 4 + 3 + 21. \\
3558 &= 9 + 8 \times 7 \times (6 + 54 + 3) + 21. \\
3559 &= 9 \times (8 + 76 \times 5) + 4 + 3 \times 21. \\
3560 &= 9 \times (87 + 6 + 5) \times 4 + 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3561 &= 12 + 3 \times 4^5 + 6 \times 78 + 9. \\
3562 &= 1 + 2 \times 3^4 + 5 \times 678 + 9. \\
3563 &= 1 \times 2^{(3+4)} + 5 \times (678 + 9). \\
3564 &= 12 + 3456 + 7 + 89. \\
3565 &= 1 + 2 \times 3 \times 4 + 5 \times (6 + 78 \times 9). \\
3566 &= 1 \times 2 \times (3 + 4^5 + (6 + 78) \times 9). \\
3567 &= 1 \times 23 + 4 + 5 \times (6 + 78 \times 9). \\
3568 &= 1 + 23 + 4 + 5 \times (6 + 78 \times 9). \\
3569 &= 1 + (2^3 + 45) \times 67 + 8 + 9. \\
3570 &= (123 + 45 + 6 \times 7) \times (8 + 9). \\
3571 &= (1 + 2)^3 + 4 + 5 \times (6 + 78 \times 9). \\
3572 &= 1 \times 2^3 \times 4 + 5 \times (6 + 78 \times 9). \\
3573 &= 12 + 3 \times 4 \times (5 \times 6 + 7) \times 8 + 9. \\
3574 &= 1^2 \times 34 + 5 \times (6 + 78 \times 9). \\
3575 &= 1^2 \times 3456 + 7 \times (8 + 9). \\
3576 &= 1 \times 2 + 34 + 5 \times (6 + 78 \times 9). \\
3577 &= 1 \times 2 + 3456 + 7 \times (8 + 9). \\
3578 &= 1 + 2 + 3456 + 7 \times (8 + 9). \\
3579 &= 12 \times 3 \times 4 + 5 \times (678 + 9). \\
3580 &= 1 + 2 + 3 + 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3581 &= 1 + 2 \times 3 + 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3582 &= 1^2 \times 3 \times 4^3 + 6 + 7 \times 8 \times 9. \\
3583 &= 1^2 + 3 \times 4^5 + 6 + 7 \times 8 \times 9. \\
3584 &= 1 \times 2 + 3 \times 4^5 + 6 + 7 \times 8 \times 9. \\
3585 &= 1 + 2 + 3 \times 4^5 + 6 + 7 \times 8 \times 9. \\
3586 &= (1^2 + 3) \times 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3587 &= 12 + 3456 + 7 \times (8 + 9). \\
3588 &= 1 \times 23 \times (4 + 56 + 7 + 89). \\
3589 &= 12 + 3 + 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3590 &= 1 \times 2 + 3 \times 4 \times (5 \times 6 \times 7 + 89). \\
3591 &= 1^2 \times 3456 + (7 + 8) \times 9. \\
3592 &= 1^2 + 3456 + (7 + 8) \times 9. \\
3593 &= 1 \times 2 + 3456 + (7 + 8) \times 9. \\
3594 &= 1 + 2 + 3456 + (7 + 8) \times 9. \\
3595 &= 1 + 2 \times 3 \times 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3596 &= 1 + 2 + (34 + 5 \times 6) \times 7 \times 8 + 9. \\
3597 &= 12 \times (34 + 5) \times 6 + 789. \\
3598 &= 1 + 23 + 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3599 &= 1 \times 2 \times 3 \times 45 \times (6 + 7 + 89). \\
3600 &= 12 \times (3 + 45) + 6 \times 7 \times 8 \times 9. \\
3601 &= 1 + 2 \times 3 \times 4 \times 5 \times (6 + 7 + 8 + 9). \\
3602 &= (1 \times 2 + 3)^4 \times 5 + 6 \times 78 + 9. \\
3603 &= 12 + 3456 + (7 + 8) \times 9. \\
3604 &= 1234 + 5 \times 6 \times (7 + 8 \times 9). \\
3605 &= (123 \times 4 + 5) \times 6 + 7 \times 89. \\
3606 &= 1 \times 2 + 34 + 5 \times 6 \times 7 \times (8 + 9). \\
3607 &= 1 + 2 + 34 + 5 \times 6 \times 7 \times (8 + 9). \\
3608 &= 1 \times 2 \times 34 + 5 \times (6 + 78 \times 9). \\
3609 &= 1 \times 234 + 5 \times (67 + 8) \times 9. \\
3610 &= 1 + 234 + 5 \times (67 + 8) \times 9. \\
3611 &= 1 \times 2 + (3 + 45) \times (67 + 8) + 9. \\
3612 &= 12 \times (34 \times 5 + 6 \times 7 + 89). \\
3613 &= 1 + (23 + 4 \times 5) \times (67 + 8 + 9). \\
3614 &= (12 + 34) \times (5 + 6) \times 7 + 8 \times 9. \\
3615 &= 1 + (2 \times 3 + 4 \times 5) \times (67 + 8 \times 9). \\
3616 &= 12 + 34 + 5 \times 6 \times 7 \times (8 + 9). \\
3617 &= 1^2 \times 3 \times 4^5 + 67 \times 8 + 9. \\
3618 &= 1^2 + 3 \times 4^5 + 67 \times 8 + 9. \\
3619 &= 1 \times 2 + 3 \times 4^5 + 67 \times 8 + 9. \\
3620 &= 1 + 2 + 3 \times 4^5 + 67 \times 8 + 9. \\
3621 &= 12 + (3 + 45) \times (67 + 8) + 9. \\
3622 &= 1^2 + 3^4 + 5 \times (6 + 78 \times 9). \\
3623 &= (1 \times 2^3 + 45) \times 67 + 8 \times 9. \\
3624 &= 1 + (2^3 + 45) \times 67 + 8 \times 9. \\
3625 &= ((1^2 + 3^4) \times 5 + 6 \times 7) \times 8 + 9. \\
3626 &= (1 + 2 + 34) \times (5 + 6 + 78 + 9). \\
3627 &= (123 + 4 \times 56 + 7 \times 8) \times 9. \\
3628 &= 1 + (23 + 4) \times (56 + 78) + 9. \\
3629 &= 12 + 3 \times 4^5 + 67 \times 8 + 9. \\
3630 &= 1 + 2 + (34 + 5) \times (6 + 78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3561 &= (9 + 8 + 7 \times 6) \times 5 \times 4 \times 3 + 21. \\
3562 &= 9 + 8 \times (7 \times 6 \times 5 + 4 \times 3) \times 2 + 1. \\
3563 &= 9 + 8 \times (7 + 6 \times 5) \times 4 \times 3 + 2 \times 1. \\
3564 &= 9 + 8 \times (7 + 6 \times 5) \times 4 \times 3 + 2 + 1. \\
3565 &= 9 + (876 + 5) \times 4 + 32 \times 1. \\
3566 &= 9 + (876 + 5) \times 4 + 32 + 1. \\
3567 &= 987 + 6 \times 5 \times 43 \times 2 \times 1. \\
3568 &= 987 + 6 \times 5 \times 43 \times 2 + 1. \\
3569 &= 9 \times 8 \times 7 \times 6 + 543 + 2 \times 1. \\
3570 &= 9 \times 8 \times 7 \times 6 + 543 + 2 + 1. \\
3571 &= (9 + 8) \times 7 \times (6 + (5 + 4 + 3) \times 2) + 1. \\
3572 &= (9 + 87 + 6) \times 5 \times (4 + 3) + 2 \times 1. \\
3573 &= (9 \times 87 + 6 \times 5) \times 4 + 321. \\
3574 &= (9 + 8 \times 7 \times 6) \times 5 + 43^2 \times 1. \\
3575 &= (9 + 8 \times 7 \times 6) \times 5 + 43^2 + 1. \\
3576 &= 98 + 76 + 54 \times 3 \times 21. \\
3577 &= 9 \times (8 + 76 \times 5) + 4^3 + 21. \\
3578 &= 9 \times (8 + 76 \times 5) + 43 \times 2 \times 1. \\
3579 &= 9 \times (8 + 76 \times 5) + 43 \times 2 + 1. \\
3580 &= 9 \times 87 + 65 \times 43 + 2 \times 1. \\
3581 &= 9 \times 87 + 65 \times 43 + 2 + 1. \\
3582 &= (98 + 7) \times 6 \times 5 + 432 \times 1. \\
3583 &= (98 + 7) \times 6 \times 5 + 432 + 1. \\
3584 &= (9 + 876 + 5) \times 4 + 3 + 21. \\
3585 &= (9 + 8) \times 7 \times 6 \times 5 + 4 \times 3 + 2 + 1. \\
3586 &= 9 + (8 + (7 + 6) \times 5) \times (4 + 3)^2 \times 1. \\
3587 &= 987 + 65 \times 4 \times (3^2 + 1). \\
3588 &= 9 \times 8 \times 7 \times 6 + 543 + 21. \\
3589 &= (98 \times 7 + 6) \times 5 + 4 \times 32 + 1. \\
3590 &= (9 + 8) \times 7 \times 6 \times 5 + 4 \times (3 + 2) \times 1. \\
3591 &= (9 \times 8 + 76 + 5 \times 4 + 3) \times 21. \\
3592 &= (9 + 876 + 5) \times 4 + 32 \times 1. \\
3593 &= (9 + 876 + 5) \times 4 + 32 + 1. \\
3594 &= 98 + 76 \times (5 \times 4 + 3) \times 2 \times 1. \\
3595 &= 98 + 76 \times (5 \times 4 + 3) \times 2 + 1. \\
3596 &= 9 + (876 + 5) \times 4 + 3 \times 21. \\
3597 &= 987 + 6 \times 5 \times (43 \times 2 + 1). \\
3598 &= (9 + 8) \times 7 \times 6 \times 5 + 4 + 3 + 21. \\
3599 &= 9 \times 87 + 65 \times 43 + 21. \\
3600 &= (9 + 8 + 7 + 6) \times 5 \times 4 \times 3 \times 2 \times 1. \\
3601 &= 9 \times 8 \times (7 + 6 + 5 + 4 + 3) \times 2 + 1. \\
3602 &= 98 \times 7 + 6 \times 54 \times 3^2 \times 1. \\
3603 &= 98 \times 7 + 6 \times 54 \times 3^2 + 1. \\
3604 &= (98 \times 7 + 6) \times 5 + (4 \times 3)^2 \times 1. \\
3605 &= (98 \times 7 + 6) \times 5 + (4 \times 3)^2 + 1. \\
3606 &= (9 + 8) \times 7 \times 6 \times 5 + 4 + 32 \times 1. \\
3607 &= (9 + 8) \times 7 \times 6 \times 5 + 4 + 32 + 1. \\
3608 &= 98 + (7 + 6) \times 54 \times (3 + 2) \times 1. \\
3609 &= 987 + 6 \times (5 + 432) \times 1. \\
3610 &= 987 + 6 \times (5 + 432) + 1. \\
3611 &= 98 \times 7 + 65 \times (43 + 2) \times 1. \\
3612 &= 98 \times 7 + 65 \times (43 + 2) + 1. \\
3613 &= 98 \times (7 + 6 + 5) + 43^2 \times 1. \\
3614 &= 98 \times (7 + 6 + 5) + 43^2 + 1. \\
3615 &= 987 + 6 \times (5 + 432 + 1). \\
3616 &= (9 + 8 + 76 + 5 \times 4) \times 32 \times 1. \\
3617 &= 9 + 8 \times (76 + 54 + 321). \\
3618 &= 9 \times (8 + 7 + 6 \times 54 + 3 \times 21). \\
3619 &= (9 + 8) \times 7 \times 6 \times 5 + (4 + 3)^2 \times 1. \\
3620 &= 9 \times (8 + 76 \times 5) + 4 \times 32 \times 1. \\
3621 &= 9 \times (8 + 76 \times 5) + 4 \times 32 + 1. \\
3622 &= ((9 \times 8 + 76 \times 5) \times 4 + 3) \times 2 \times 1. \\
3623 &= (9 + 876 + 5) \times 4 + 3 \times 21. \\
3624 &= 9 + 87 + (6 + 54 \times 3) \times 21. \\
3625 &= 9 + (87 + 6 + 5 \times 4) \times 32 \times 1. \\
3626 &= 98 + 7 \times (6 + 54 \times 3) \times (2 + 1). \\
3627 &= 9 \times (8 \times 7 + 6 + 5 \times 4 + 321). \\
3628 &= (9 \times 8 + 7 + 6 \times 54) \times 3^2 + 1. \\
3629 &= 9 + 8 + 7 \times 6 \times (54 + 32 \times 1). \\
3630 &= 9 + 8 + 7 \times 6 \times (54 + 32) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3631 &= 1 \times 2 + (3^4 + 5) \times 6 \times 7 + 8 + 9. \\
3632 &= 1 \times 23 \times 4 + 5 \times (6 + 78 \times 9). \\
3633 &= 1 \times 234 + 5 \times 678 + 9. \\
3634 &= 1 + 234 + 5 \times 678 + 9. \\
3635 &= 12^3 + 45 \times 6 \times 7 + 8 + 9. \\
3636 &= 1 + 2 \times 3 \times (4 + 5) \times 67 + 8 + 9. \\
3637 &= 123 \times 4 + 56 \times 7 \times 8 + 9. \\
3638 &= 1 \times 2 \times 34 + 5 \times 6 \times 7 \times (8 + 9). \\
3639 &= 1 + 2 \times 34 + 5 \times 6 \times 7 \times (8 + 9). \\
3640 &= 1 \times 2 + 34 \times (5 + 6 + 7 + 89). \\
3641 &= 1 + (2^3 + 45) \times 67 + 89. \\
3642 &= (1 + 2) \times 3^4 + 5 \times 678 + 9. \\
3643 &= (1 \times 2 + (3^4 + 5) \times 6) \times 7 + 8 + 9. \\
3644 &= 1 \times 2 \times (3 + 4^5 + 6 + 789). \\
3645 &= (1 + 2 + 3)^4 + 5 \times 6 \times 78 + 9. \\
3646 &= 1 + (23 + 4) \times (56 + 7 + 8 \times 9). \\
3647 &= 1^2 \times 3 + 4 + 56 \times (7 \times 8 + 9). \\
3648 &= 1 \times 2 \times 3 \times 4 \times (56 + 7 + 89). \\
3649 &= 1 \times 2 + 3 + 4 + 56 \times (7 \times 8 + 9). \\
3650 &= 12 + 34 \times (5 + 6 + 7 + 89). \\
3651 &= 1 + 2 \times 3 + 4 + 56 \times (7 \times 8 + 9). \\
3652 &= 12^3 + 4 \times (56 \times 7 + 89). \\
3653 &= 1 + 2^3 + 4 + 56 \times (7 \times 8 + 9). \\
3654 &= 1 \times 2 + 3 \times 4 + 56 \times (7 \times 8 + 9). \\
3655 &= 1 + (2 + 3)^4 + 5 + 6 \times 7 \times 8 \times 9. \\
3656 &= 12^3 + 4 \times (5 + 6 \times 78 + 9). \\
3657 &= 1 \times 23 \times (45 + 6 \times 7 + 8 \times 9). \\
3658 &= 1 + 23 \times (4 \times 5 + 67 + 8 \times 9). \\
3659 &= (123 + 4) \times 5 + 6 \times 7 \times 8 \times 9. \\
3660 &= 12 + 3 \times 4^5 + 6 \times (7 + 89). \\
3661 &= 12 \times 3^4 + 5 \times 67 \times 8 + 9. \\
3662 &= 1 \times 23 \times 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3663 &= 12 + 3^4 + 5 \times 6 \times 7 \times (8 + 9). \\
3664 &= 12 + 3 \times 4 + 56 \times (7 \times 8 + 9). \\
3665 &= 1 + 2 \times 3 \times 4 + 56 \times (7 \times 8 + 9). \\
3666 &= 12 + 3^4 \times (5 \times 6 + 7 + 8) + 9. \\
3667 &= 1 \times 23 + 4 + 56 \times (7 \times 8 + 9). \\
3668 &= 1 + 23 + 4 + 56 \times (7 \times 8 + 9). \\
3669 &= 1 \times 234 + 5 \times (678 + 9). \\
3670 &= 1 + 234 + 5 \times (678 + 9). \\
3671 &= (123 \times 4 + 5 \times 6) \times 7 + 8 + 9. \\
3672 &= 1 \times 2^3 \times 456 + 7 + 8 + 9. \\
3673 &= 1 + 2^3 \times 456 + 7 + 8 + 9. \\
3674 &= 1^2 \times 34 + 56 \times (7 \times 8 + 9). \\
3675 &= (1 \times 2 + 34 + 5 + 6) \times 78 + 9. \\
3676 &= 1 + (2 + 34 + 5 + 6) \times 78 + 9. \\
3677 &= 1 + 2 + 34 + 56 \times (7 \times 8 + 9). \\
3678 &= (1 + 2) \times 3^4 + 5 \times (678 + 9). \\
3679 &= 1 + 2 \times 3 + (4 + 5 + 6 \times 7) \times 8 \times 9. \\
3680 &= 12 \times 3 + 4 + 56 \times (7 \times 8 + 9). \\
3681 &= (12 + 3^4 \times 5 + 6 \times 7) \times 8 + 9. \\
3682 &= 12^3 + 4 + 5 \times 6 \times (7 \times 8 + 9). \\
3683 &= (1 + 2) \times 34 \times 5 \times 6 + 7 \times 89. \\
3684 &= 12 \times 3 \times 4 + 5 \times (6 + 78 \times 9). \\
3685 &= 1^2 + (3^4 + 5) \times 6 \times 7 + 8 \times 9. \\
3686 &= 12 + 34 + 56 \times (7 \times 8 + 9). \\
3687 &= 1 + 2 + (3^4 + 5) \times 6 \times 7 + 8 \times 9. \\
3688 &= 12^3 + 4^5 + (6 + 7) \times 8 \times 9. \\
3689 &= (12 + 34) \times (5 + 67 + 8) + 9. \\
3690 &= 12^3 + 45 \times 6 \times 7 + 8 \times 9. \\
3691 &= 1 + 2 \times 3 \times (4 + 5) \times 67 + 8 \times 9. \\
3692 &= (1 + 2 \times 3 + 45) \times (6 + 7 + 8 \times 9). \\
3693 &= 12 + 34 \times (5 \times 6 + 78) + 9. \\
3694 &= 12^3 + 4 + (5 \times 6 \times 7 + 8) \times 9. \\
3695 &= 1 \times 23 + (4 + 5 + 6 \times 7) \times 8 \times 9. \\
3696 &= 12 + (3^4 + 5) \times 6 \times 7 + 8 \times 9. \\
3697 &= 123 + 4 + 5 \times 6 \times 7 \times (8 + 9). \\
3698 &= (1 \times 2 + (3^4 + 5) \times 6) \times 7 + 8 \times 9. \\
3699 &= (12 + 3) \times 45 + 6 \times 7 \times 8 \times 9. \\
3700 &= (12 + 3) \times 4 + 56 \times (7 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3631 &= 9 + 8 + 7 + 6 + (5 \times 4 \times 3)^2 + 1. \\
3632 &= -9 + 8 \times 7 \times 65 - 4 + 3 \times 2 - 1. \\
3633 &= (9 + 8 \times 7 + 65 + 43) \times 21. \\
3634 &= (9 + 8) \times 7 \times 6 \times 5 + 43 + 21. \\
3635 &= 98 \times (7 + 6 \times 5) + 4 + 3 + 2 \times 1. \\
3636 &= 98 \times (7 + 6 \times 5) + 4 + 3 + 2 + 1. \\
3637 &= (9 + 8) \times 7 \times 6 \times 5 + 4 + 3 \times 21. \\
3638 &= (9 + 8) \times (7 \times (6 + 5 \times 4) + 32 \times 1). \\
3639 &= 98 \times (7 + 6 \times 5) + 4 + 3^2 \times 1. \\
3640 &= 98 \times (7 + 6 \times 5) + 4 + 3^2 + 1. \\
3641 &= 98 \times (7 + 6 \times 5) + 4 \times 3 + 2 + 1. \\
3642 &= (9 \times (8 \times 7 + 6 + 5) + 4) \times 3 \times 2 \times 1. \\
3643 &= (9 + 8) \times (7 \times 6 \times 5 + 4) + 3 + 2 \times 1. \\
3644 &= (9 + 8) \times (7 \times 6 \times 5 + 4) + 3 \times 2 \times 1. \\
3645 &= 9 \times (8 + 7 + 65 + 4 + 321). \\
3646 &= 98 \times (7 + 6 \times 5) + 4 \times (3 + 2) \times 1. \\
3647 &= 98 \times (7 + 6 \times 5) + 4 \times (3 + 2) + 1. \\
3648 &= (9 + 8 + 7) \times (65 + 43 \times 2 + 1). \\
3649 &= 9 + 8 \times 7 \times (6 + 54 + 3 + 2 \times 1). \\
3650 &= 98 \times (7 + 6 \times 5) + 4 \times 3 \times 2 \times 1. \\
3651 &= 98 \times (7 + 6 \times 5) + 4 \times 3 \times 2 + 1. \\
3652 &= (98 \times 7 + 6) \times 5 + 4^3 \times (2 + 1). \\
3653 &= 9 + 8 \times 7 \times 65 + 4 - 3 + 2 + 1. \\
3654 &= 9 \times 8 \times 7 \times 6 + 5^4 + 3 + 2 \times 1. \\
3655 &= 9 \times 8 \times 7 \times 6 + 5^4 + 3 \times 2 \times 1. \\
3656 &= 9 \times 8 \times 7 \times 6 + 5^4 + 3 \times 2 + 1. \\
3657 &= (9 + 8) \times 7 \times 6 \times 5 + 43 \times 2 + 1. \\
3658 &= 9 + 8 \times 7 \times 65 + 4 + 3 + 2 \times 1. \\
3659 &= 9 + 8 \times 7 \times 65 + 4 + 3 \times 2 \times 1. \\
3660 &= 9 + 8 \times 7 \times 65 + 4 + 3 \times 2 + 1. \\
3661 &= 9 + 8 \times 7 \times 65 + 4 + 3^2 - 1. \\
3662 &= 9 + 8 \times 7 \times 65 + 4 + 3^2 \times 1. \\
3663 &= 9 + 8 \times 7 \times 65 + 4 + 3^2 + 1. \\
3664 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 32 \times 1. \\
3665 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 32 + 1. \\
3666 &= 9 \times (8 + 7 + 6 \times 5 \times 4) \times 3 + 21. \\
3667 &= 9 + 8 + 76 \times (5 + 43) + 2 \times 1. \\
3668 &= 9 + 8 + 76 \times (5 + 43) + 2 + 1. \\
3669 &= (9 \times 8 + 765) \times 4 + 321. \\
3670 &= 9 + 8 \times 7 \times 65 + 4 \times (3 + 2) + 1. \\
3671 &= 98 \times (7 + 6 \times 5) + 43 + 2 \times 1. \\
3672 &= (9 \times 8 + 76 + 5) \times 4 \times 3 \times 2 \times 1. \\
3673 &= 9 \times 8 \times 7 \times 6 + 5^4 + 3 + 21. \\
3674 &= 9 + 8 \times 7 \times 65 + 4 \times 3 \times 2 + 1. \\
3675 &= (98 + 7) \times (6 + 5 + 4 \times 3 \times 2 \times 1). \\
3676 &= 98 \times 7 + 65 \times (43 + 2 + 1). \\
3677 &= 9 + 8 \times 7 \times 65 + 4 + 3 + 21. \\
3678 &= 9 + (8 \times 7 + 6) \times 54 + 321. \\
3679 &= 9 \times 8 \times 7 + 6 \times (5 \times 4 + 3)^2 + 1. \\
3680 &= (9 + 8 + 7 \times 65 \times 4 + 3) \times 2 \times 1. \\
3681 &= (9 + 8 + 7 \times 65 \times 4 + 3) \times 2 + 1. \\
3682 &= 9 + 8 \times 7 \times 65 + 4 \times 3 + 21. \\
3683 &= 9 \times (8 \times 7 + 6) + 5^4 \times (3 + 2) \times 1. \\
3684 &= 9 \times 8 + 7 \times 6 \times (54 + 32) \times 1. \\
3685 &= 9 + 8 \times 7 \times 65 + 4 + 32 \times 1. \\
3686 &= 9 + 8 \times 7 \times 65 + 4 + 32 + 1. \\
3687 &= 9 + 8 \times (7 \times 65 + 4) + 3 + 2 + 1. \\
3688 &= 9 + 8 \times (7 \times 65 + 4) + 3 \times 2 + 1. \\
3689 &= 9 \times 8 \times 7 + 65 \times (4 + 3)^2 \times 1. \\
3690 &= 98 \times (7 + 6 \times 5) + 43 + 21. \\
3691 &= 9 + 8 \times (7 \times 65 + 4) + 3^2 + 1. \\
3692 &= 98 \times (7 + 6 \times 5) + 4^3 + 2 \times 1. \\
3693 &= 98 \times (7 + 6 \times 5) + 4 + 3 \times 21. \\
3694 &= 9 + 8 \times 7 \times 65 + 43 + 2 \times 1. \\
3695 &= 9 + 8 \times 7 \times 65 + 43 + 2 + 1. \\
3696 &= 987 + (65 + 4^3) \times 21. \\
3697 &= (9 + 8 + 7) \times (6 + 5) \times (4 + 3) \times 2 + 1. \\
3698 &= (98 + 7 \times 6 \times 5) \times 4 \times 3 + 2 \times 1. \\
3699 &= 9 \times 87 + 6 \times 54 \times 3^2 \times 1. \\
3700 &= 9 \times 87 + 6 \times 54 \times 3^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3701 &= 1^2 \times 3 \times 4^5 + 6 + 7 \times 89. \\
3702 &= 1^2 + 3 \times 4^5 + 6 + 7 \times 89. \\
3703 &= 1 \times 2 + 3 \times 4^5 + 6 + 7 \times 89. \\
3704 &= 1 + 2 + 3 \times 4^5 + 6 + 7 \times 89. \\
3705 &= (12 + 3 + 45 + 6) \times 7 \times 8 + 9. \\
3706 &= 1^2 \times 34 \times (5 \times 6 + 7 + 8 \times 9). \\
3707 &= 12^3 + 45 \times 6 \times 7 + 89. \\
3708 &= 1 \times 2 \times 34 + 56 \times (7 \times 8 + 9). \\
3709 &= 1 + 2 \times 34 + 56 \times (7 \times 8 + 9). \\
3710 &= (1 + 2) \times (3 + 4^5) + 6 + 7 \times 89. \\
3711 &= 12 + (3 + (4 \times (5 + 6) + 7) \times 8) \times 9. \\
3712 &= (1^2 + 3 + 4) \times (56 \times 7 + 8 \times 9). \\
3713 &= 12 + 3 \times 4^5 + 6 + 7 \times 89. \\
3714 &= 1 + 2^3 \times 456 + 7 \times 8 + 9. \\
3715 &= 1 + 2 \times 345 + 6 \times 7 \times 8 \times 9. \\
3716 &= 1 + (2 + 3) \times (4 \times 5 \times 6 + 7 \times 89). \\
3717 &= (1 + 2) \times 3 \times (4 + 56 \times 7 + 8 + 9). \\
3718 &= 12 + 34 \times (5 \times 6 + 7 + 8 \times 9). \\
3719 &= 1 + 2 + 3 + (456 + 7) \times 8 + 9. \\
3720 &= (12 + 3) \times (4 \times 56 + 7 + 8 + 9). \\
3721 &= 1 \times 2^3 \times (456 + 7) + 8 + 9. \\
3722 &= 1 + 2^3 \times (456 + 7) + 8 + 9. \\
3723 &= 1 \times 2 + 3^4 + 56 \times (7 \times 8 + 9). \\
3724 &= 1 + 2 + 3^4 + 56 \times (7 \times 8 + 9). \\
3725 &= (1 + 2 \times 3 \times 4) \times (5 \times 6 + 7 \times (8 + 9)). \\
3726 &= (123 \times 4 + 5 \times 6) \times 7 + 8 \times 9. \\
3727 &= 1 \times 2^3 \times 456 + 7 + 8 \times 9. \\
3728 &= 1 + 2^3 \times 456 + 7 + 8 \times 9. \\
3729 &= 1^2 \times 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
3730 &= 1^2 + 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
3731 &= 1 \times 2 + 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
3732 &= 1 \times 23 \times 4 + 56 \times (7 \times 8 + 9). \\
3733 &= 1 + 23 \times 4 + 56 \times (7 \times 8 + 9). \\
3734 &= 1 - 2 \times 3 - 4 + 5 + 6 \times 7 \times 89. \\
3735 &= 1 \times 2^3 \times 456 + 78 + 9. \\
3736 &= 1 + 2^3 \times 456 + 78 + 9. \\
3737 &= 1 \times 2 + 3 \times (456 + 789). \\
3738 &= 1 + 2 + 3 \times (456 + 789). \\
3739 &= 1^2 + (3 + 4) \times (5 \times 6 + 7 \times 8 \times 9). \\
3740 &= (1 + 23 + 4 \times 5) \times (6 + 7 + 8 \times 9). \\
3741 &= 12 + 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
3742 &= (1 + 2) \times 34 + 56 \times (7 \times 8 + 9). \\
3743 &= (123 \times 4 + 5 \times 6) \times 7 + 89. \\
3744 &= 1 \times 2^3 \times 456 + 7 + 89. \\
3745 &= 1 + 2^3 \times 456 + 7 + 89. \\
3746 &= 1 \times 2 + (34 + 5 + (6 + 7)) \times 8 \times 9. \\
3747 &= 12 + 3 \times (456 + 789). \\
3748 &= 1^{23} + 4 + 5 + 6 \times 7 \times 89. \\
3749 &= 1 \times 2 + 3 \times 4^5 + (67 + 8) \times 9. \\
3750 &= 1^2 \times 3 + 4 + 5 + 6 \times 7 \times 89. \\
3751 &= 1^2 + 3 + 4 + 5 + 6 \times 7 \times 89. \\
3752 &= 1 \times 2 + 3 + 4 + 5 + 6 \times 7 \times 89. \\
3753 &= 1 + 2 + 3 + 4 + 5 + 6 \times 7 \times 89. \\
3754 &= 1 + 2 \times 3 + 4 + 5 + 6 \times 7 \times 89. \\
3755 &= 1 \times 2^3 + 4 + 5 + 6 \times 7 \times 89. \\
3756 &= 1^2 + 3 \times 4 + 5 + 6 \times 7 \times 89. \\
3757 &= 1 \times 2 + 3 \times 4 + 5 + 6 \times 7 \times 89. \\
3758 &= 1 + 2 + 3 \times 4 + 5 + 6 \times 7 \times 89. \\
3759 &= 1^2 \times 3 \times 4^5 + 678 + 9. \\
3760 &= 1^2 + 3 \times 4^5 + 678 + 9. \\
3761 &= 1 \times 2 + 3 \times 4^5 + 678 + 9. \\
3762 &= 12 + 3 + 4 + 5 + 6 \times 7 \times 89. \\
3763 &= 1 \times 2 + 3 + 4 \times 5 + 6 \times 7 \times 89. \\
3764 &= 1 \times 2 \times 3 + 4 \times 5 + 6 \times 7 \times 89. \\
3765 &= 1 + 2 \times 3 + 4 \times 5 + 6 \times 7 \times 89. \\
3766 &= 1 \times 2^3 + 4 \times 5 + 6 \times 7 \times 89. \\
3767 &= 1 \times 2 \times 3 \times 4 + 5 + 6 \times 7 \times 89. \\
3768 &= 1 + 2 \times 3 \times 4 + 5 + 6 \times 7 \times 89. \\
3769 &= (1 + 2 \times 3 + 456 + 7) \times 8 + 9. \\
3770 &= 1 \times 23 + 4 + 5 + 6 \times 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3701 &= (9 + 8) \times (7 \times 6 \times 5 + 4) + 3 \times 21. \\
3702 &= 9 + 87 + 6 + (5 \times 4 \times 3)^2 \times 1. \\
3703 &= 9 + 87 + 6 + (5 \times 4 \times 3)^2 + 1. \\
3704 &= 9 \times 8 \times (7 \times 6 + 5 + 4) + 32 \times 1. \\
3705 &= 9 + 8 \times 7 \times (6 + 54 + 3 + 2 + 1). \\
3706 &= 9 \times (87 + 6 \times 54) + 3 \times 2 + 1. \\
3707 &= 9 + 8 \times (7 \times 65 + 4 + 3) + 2 \times 1. \\
3708 &= 9 \times 87 + 65 \times (43 + 2) \times 1. \\
3709 &= 9 \times 8 \times (7 \times 6 + 5) + 4 + 321. \\
3710 &= 98 + 7 \times 6 \times (54 + 32 \times 1). \\
3711 &= 98 + 7 \times 6 \times (54 + 32) + 1. \\
3712 &= 9 \times 8 \times 7 \times 6 + 5^4 + 3 \times 21. \\
3713 &= 9 + 8 \times 7 \times 65 + 43 + 21. \\
3714 &= 9 + 8 \times (7 \times 65 + 4) + 32 + 1. \\
3715 &= 9 + 8 \times 7 \times 65 + 4^3 + 2 \times 1. \\
3716 &= 9 + 8 \times 7 \times 65 + 4 + 3 \times 21. \\
3717 &= (98 + 7 + 65 + 4 + 3) \times 21. \\
3718 &= (9 + 8 + 7 \times 6) \times (54 + 3^2) + 1. \\
3719 &= 9 + (87 \times 6 + 5) \times (4 + 3) + 21. \\
3720 &= 9 + 8 + 7 \times (6 + 5 + 4 \times 3)^2 \times 1. \\
3721 &= 9 + (8 \times 7 + 6 + 54) \times 32 \times 1. \\
3722 &= 9 \times 8 + 76 \times (5 + 43) + 2 \times 1. \\
3723 &= 9 \times (87 + 6 \times 54) + 3 + 21. \\
3724 &= 98 \times (7 + 6 + 5 \times 4 + 3 + 2 \times 1). \\
3725 &= (9 + 8 \times 7 + 6 + 5) \times (4 + 3)^2 + 1. \\
3726 &= 9 + 8 \times (7 \times 65 + 4 + 3) + 21. \\
3727 &= ((9 + 8 + 76) \times 5 \times 4 + 3) \times 2 + 1. \\
3728 &= 9 \times (8 + 76 + 54) \times 3 + 2 \times 1. \\
3729 &= 9 \times (8 + 76 + 54) \times 3 + 2 + 1. \\
3730 &= (98 \times 7 + 6 + 54) \times (3 + 2) \times 1. \\
3731 &= 9 \times (87 + 6 \times 54) + 32 \times 1. \\
3732 &= 9 \times (87 + 6 \times 54) + 32 + 1. \\
3733 &= (9 \times (87 + 6 \times 5 \times 4) + 3) \times 2 + 1. \\
3734 &= 9 + 8 \times 7 \times 65 + 4^3 + 21. \\
3735 &= 9 + 8 \times 7 \times 65 + 43 \times 2 \times 1. \\
3736 &= 9 + 8 \times 7 \times 65 + 43 \times 2 + 1. \\
3737 &= 9 + 8 \times (76 \times 5 + 43 \times 2 \times 1). \\
3738 &= (98 + 7 + 6 \times 5 + 43) \times 21. \\
3739 &= (9 + (8 \times 7 \times (6 + 5) + 4) \times 3) \times 2 + 1. \\
3740 &= 98 + 7 \times 6 + (5 \times 4 \times 3)^2 \times 1. \\
3741 &= 9 \times 8 + 76 \times (5 + 43) + 21. \\
3742 &= 9 + 8 \times 76 + 5^4 \times (3 + 2) \times 1. \\
3743 &= (987 + 65 \times 4) \times 3 + 2 \times 1. \\
3744 &= (9 \times 8 \times 7 + 6 \times 5 \times 4) \times 3 \times 2 \times 1. \\
3745 &= (9 \times 8 \times 7 + 6 \times 5 \times 4) \times 3 \times 2 + 1. \\
3746 &= 98 + 76 \times ((5 + 4) \times 3 + 21). \\
3747 &= 9 + 8 \times 7 \times 6 + 54 \times 3 \times 21. \\
3748 &= 98 + 76 \times (5 + 43) + 2 \times 1. \\
3749 &= 98 + 76 \times (5 + 43) + 2 + 1. \\
3750 &= 9 + (8 \times 7 + 6) \times 5 \times 4 \times 3 + 21. \\
3751 &= (9 + 87 + 654) \times (3 + 2) + 1. \\
3752 &= 98 + 7 \times 6 \times (54 + 32 + 1). \\
3753 &= 9 + 8 \times (7 \times 65 + 4 + 3^2 \times 1). \\
3754 &= 98 \times (7 + 6 \times 5) + 4 \times 32 \times 1. \\
3755 &= 98 \times (7 + 6 \times 5) + 4 \times 32 + 1. \\
3756 &= (9 + 8 \times 76 + 5 + 4) \times 3 \times 2 \times 1. \\
3757 &= (9 + 8 \times 76 + 5 + 4) \times 3 \times 2 + 1. \\
3758 &= 98 \times (7 + 6 \times 5) + 4 \times (32 + 1). \\
3759 &= 9 \times 8 \times 7 \times 6 + 5 \times (4 + 3) \times 21. \\
3760 &= 9 \times 8 \times 7 + 6 + (54 + 3)^2 + 1. \\
3761 &= 9 + 8 \times 7 \times (6 + 54 + 3 \times 2 + 1). \\
3762 &= (987 + 65 \times 4) \times 3 + 21. \\
3763 &= (9 + 8 \times 7 + 6) \times (5 \times 4 + 32 + 1). \\
3764 &= 9 \times 8 \times 7 + 6 \times 543 + 2 \times 1. \\
3765 &= 9 \times 8 \times 7 + 6 \times 543 + 2 + 1. \\
3766 &= 9 + 8 \times (7 \times 65 + 4 \times 3) + 21. \\
3767 &= 98 + 76 \times (5 + 43) + 21. \\
3768 &= (9 \times 8 + 76 + 5 + 4) \times (3 + 21). \\
3769 &= 9 + 8 \times (7 + 6 \times 5 + 432 + 1). \\
3770 &= (9 + 8 \times 7) \times (6 + 5 \times 4 + 32 \times 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
3771 &= 12 + 3 \times 4^5 + 678 + 9. \\
3772 &= 1 \times 2 \times (3 \times 4 + 5) + 6 \times 7 \times 89. \\
3773 &= 12 + 3 + 4 \times 5 + 6 \times 7 \times 89. \\
3774 &= (1 + 2 \times 3 + 4) \times 5 \times 67 + 89. \\
3775 &= 1 \times 2^3 \times 4 + 5 + 6 \times 7 \times 89. \\
3776 &= 1 + 2^3 \times 4 + 5 + 6 \times 7 \times 89. \\
3777 &= 1^2 \times 34 + 5 + 6 \times 7 \times 89. \\
3778 &= 1^2 + 34 + 5 + 6 \times 7 \times 89. \\
3779 &= 1 \times 2 + 34 + 5 + 6 \times 7 \times 89. \\
3780 &= 1^2 \times 3 \times 4^3 + 6 + 78 \times 9. \\
3781 &= 1 \times 23 + 4 \times 5 + 6 \times 7 \times 89. \\
3782 &= 1 + 23 + 4 \times 5 + 6 \times 7 \times 89. \\
3783 &= 12 \times 3 + 4 + 5 + 6 \times 7 \times 89. \\
3784 &= 1^{23} + 45 + 6 \times 7 \times 89. \\
3785 &= 12 + (3 + 4) \times 5 + 6 \times 7 \times 89. \\
3786 &= 1^2 \times 3 + 45 + 6 \times 7 \times 89. \\
3787 &= 1^2 + 3 + 45 + 6 \times 7 \times 89. \\
3788 &= 1 \times 2 + 3 + 45 + 6 \times 7 \times 89. \\
3789 &= 12 + 34 + 5 + 6 \times 7 \times 89. \\
3790 &= 1 + 2 \times 3 + 45 + 6 \times 7 \times 89. \\
3791 &= 1 \times 2^3 + 45 + 6 \times 7 \times 89. \\
3792 &= 1 + 2^3 + 45 + 6 \times 7 \times 89. \\
3793 &= 1 \times 2^3 \times (456 + 7) + 89. \\
3794 &= 12 \times 3 + 4 \times 5 + 6 \times 7 \times 89. \\
3795 &= 1 \times 23 \times (4 + 5 + 67 + 89). \\
3796 &= 1 + 23 \times (4 + 5 + 67 + 89). \\
3797 &= 12 \times 3 \times (4 + 5 + 6) \times 7 + 8 + 9. \\
3798 &= 12 + 3 + 45 + 6 \times 7 \times 89. \\
3799 &= 12 + 3 + 4 + 5 \times (6 + 78) \times 9. \\
3800 &= 1 \times 2 + 3 \times 4 \times 5 + 6 \times 7 \times 89. \\
3801 &= 1 + 2 + 3 \times 4 \times 5 + 6 \times 7 \times 89. \\
3802 &= 1 \times 2 \times 3^4 + 56 \times (7 \times 8 + 9). \\
3803 &= 1 \times 23 + 45 \times (67 + 8 + 9). \\
3804 &= 12 + 3 + 45 \times (6 + 78) + 9. \\
3805 &= 1 + 234 + 5 \times 6 \times 7 \times (8 + 9). \\
3806 &= 1 \times 23 + 45 + 6 \times 7 \times 89. \\
3807 &= 12 \times 34 + 5 \times 678 + 9. \\
3808 &= 1 \times 2 \times (3 + 4) \times 5 + 6 \times 7 \times 89. \\
3809 &= 1 + 2 \times (3 + 4) \times 5 + 6 \times 7 \times 89. \\
3810 &= 12 + 3 \times 4 \times 5 + 6 \times 7 \times 89. \\
3811 &= 1 \times 2 \times 34 + 5 + 6 \times 7 \times 89. \\
3812 &= 1 + 2 \times 34 + 5 + 6 \times 7 \times 89. \\
3813 &= 1 + 23 + 45 \times (6 + 78) + 9. \\
3814 &= 1 + (2 + 34 + 5) \times (6 + 78 + 9). \\
3815 &= (1 + 2 \times 3) \times 456 + 7 \times 89. \\
3816 &= 1 \times 2 \times (34 + 5) + 6 \times 7 \times 89. \\
3817 &= 1 + 2 + 34 + 5 \times (6 + 78) \times 9. \\
3818 &= 1^2 + 34 \times (56 + 7 \times 8) + 9. \\
3819 &= 12 \times 3 + 45 + 6 \times 7 \times 89. \\
3820 &= 12 \times 3 + 4 + 5 \times (6 + 78) \times 9. \\
3821 &= 123 \times (4 \times 5 + 6) + 7 \times 89. \\
3822 &= (1 + 2) \times (3 \times 45 + 67 \times (8 + 9)). \\
3823 &= 1 \times 2 \times (3 + (4 + 5 \times 6) \times 7 \times 8) + 9. \\
3824 &= 1^2 \times 3^4 + 5 + 6 \times 7 \times 89. \\
3825 &= (123 + 4 \times 56 + 78) \times 9. \\
3826 &= 1 \times 2 + 3^4 + 5 + 6 \times 7 \times 89. \\
3827 &= 1 + 2 + 3^4 + 5 + 6 \times 7 \times 89. \\
3828 &= 1 \times 2 \times 3 \times (4 + 5 + 6 + 7 \times 89). \\
3829 &= 12 + 34 \times (56 + 7 \times 8) + 9. \\
3830 &= 1 \times 2 + 3 + 45 \times (6 + 7 + 8 \times 9). \\
3831 &= 1 \times 2 \times 3 + 45 \times (6 + 7 + 8 \times 9). \\
3832 &= 1 \times 2 \times 34 \times 56 + 7 + 8 + 9. \\
3833 &= 1 + 2 \times 34 \times 56 + 7 + 8 + 9. \\
3834 &= 1 \times 2 \times 3^4 \times 5 + 6 \times 7 \times 8 \times 9. \\
3835 &= 1 \times 23 \times 4 + 5 + 6 \times 7 \times 89. \\
3836 &= 12 + 3^4 + 5 + 6 \times 7 \times 89. \\
3837 &= 1 + 2^3 + 4 \times (5 + 6) \times (78 + 9). \\
3838 &= 1 \times (2 + 3) \times 4 \times 5 + 6 \times 7 \times 89. \\
3839 &= (1 + 23) \times 4 + 5 + 6 \times 7 \times 89. \\
3840 &= 12 + 3 \times 4^5 + (6 + 78) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3771 &= 9 \times (8 \times 7 \times 6 + 5 \times 4 + 3 \times 21). \\
3772 &= (9 + 8 + (7 + 6) \times 5) \times (43 + 2 + 1). \\
3773 &= (98 + 765) \times 4 + 321. \\
3774 &= 9 + 876 + (5 + 4) \times 321. \\
3775 &= 9 \times 8 \times 7 + 654 \times (3 + 2) + 1. \\
3776 &= 9 \times 8 + 7 \times (6 + 5 + 4 \times 3)^2 + 1. \\
3777 &= 9 + 8 \times 7 \times 65 + 4^3 \times 2 \times 1. \\
3778 &= 9 + 8 \times 7 \times 65 + 4 \times 32 + 1. \\
3779 &= 9 + 8 + 7 + 6 \times 5^4 + 3 + 2 \times 1. \\
3780 &= 9 + 8 + 7 + 6 \times 5^4 + 3 + 2 + 1. \\
3781 &= 9 + 8 + 7 + 6 \times 5^4 + 3 \times 2 + 1. \\
3782 &= (98 + 7 \times 6) \times (5 + 4) \times 3 + 2 \times 1. \\
3783 &= 9 \times 8 \times 7 + 6 \times 543 + 21. \\
3784 &= 987 + 65 \times 43 + 2 \times 1. \\
3785 &= 987 + 65 \times 43 + 2 + 1. \\
3786 &= 9 \times (8 + 7 + 6) \times 5 \times 4 + 3 \times 2 \times 1. \\
3787 &= 9 \times (8 + 7 + 6) \times 5 \times 4 + 3 \times 2 + 1. \\
3788 &= (9 \times 8 \times (7 + 6) + 5) \times 4 + 3 + 21. \\
3789 &= 9 \times (8 + 76 \times 5 + 4 \times 3 + 21). \\
3790 &= (9 \times 8 + 7 \times 65 \times 4 + 3) \times 2 \times 1. \\
3791 &= (9 \times 8 + 7 \times 65 \times 4 + 3) \times 2 + 1. \\
3792 &= (9 + 8 \times 7) \times 6 + 54 \times 3 \times 21. \\
3793 &= 9 + 8 \times 7 \times 65 + (4 \times 3)^2 \times 1. \\
3794 &= 9 + 8 \times 7 \times 65 + (4 \times 3)^2 + 1. \\
3795 &= 9 \times (8 + 76) \times 5 + 4 \times 3 + 2 + 1. \\
3796 &= 9 + 8 \times 7 \times 65 + (4 + 3) \times 21. \\
3797 &= (9 \times 8 + 7) \times (6 + 5) \times 4 + 321. \\
3798 &= 9 + 8 + 7 + 6 \times 5^4 + 3 + 21. \\
3799 &= (9 + 8 \times 7) \times 6 \times 5 + 43^2 \times 1. \\
3800 &= (9 + 8 \times 7) \times 6 \times 5 + 43^2 + 1. \\
3801 &= (98 + 76) \times 5 \times 4 + 321. \\
3802 &= 98 + 7 \times (6 + 5 + 4 \times 3)^2 + 1. \\
3803 &= 987 + 65 \times 43 + 21. \\
3804 &= 9 \times (8 + 76) \times 5 + 4 \times 3 \times 2 \times 1. \\
3805 &= 9 \times (8 + 76) \times 5 + 4 \times 3 \times 2 + 1. \\
3806 &= 9 + 8 + 7 + 6 \times 5^4 + 32 \times 1. \\
3807 &= 9 + 8 + 7 + 6 \times 5^4 + 32 + 1. \\
3808 &= 9 \times (8 + 76) \times 5 + 4 + 3 + 21. \\
3809 &= 9 + 8 + 7 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
3810 &= 9 + 8 + 7 \times 6 + 5^4 \times 3 \times 2 + 1. \\
3811 &= 9 + 8 + 7 + (6 + 5^4) \times 3 \times 2 + 1. \\
3812 &= 9 \times (8 + 7 + 6) \times 5 \times 4 + 32 \times 1. \\
3813 &= 9 \times (8 + 76) \times 5 + 4 \times 3 + 21. \\
3814 &= 9 \times (8 \times 7 + 6) \times 5 + 4(3 + 2) \times 1. \\
3815 &= 9 \times (8 \times 7 + 6) \times 5 + 4(3 + 2) + 1. \\
3816 &= 9 \times (8 + 76) \times 5 + 4 + 32 \times 1. \\
3817 &= 9 \times 8 \times (7 \times 6 + 5) + 432 + 1. \\
3818 &= 9 + 8 \times (76 + 54 \times 3) \times 2 + 1. \\
3819 &= 98 + (7 + 6 + 5 + 43)^2 \times 1. \\
3820 &= 9 + 8 \times 7 + 6 \times 5^4 + 3 + 2 \times 1. \\
3821 &= 9 + 8 \times 7 + 6 + 5^4 \times 3 \times 2 \times 1. \\
3822 &= 9 + 8 \times 7 + 6 + 5^4 \times 3 \times 2 + 1. \\
3823 &= (9 + 8 \times 76 + 5 \times 4) \times 3 \times 2 + 1. \\
3824 &= 9 + 8 \times 7 + 6 \times 5^4 + 3^2 \times 1. \\
3825 &= 9 + 8 \times 7 + 6 \times 5^4 + 3^2 + 1. \\
3826 &= 9 \times (8 + 76) \times 5 + 43 + 2 + 1. \\
3827 &= (9 \times 8 \times (7 + 6) + 5) \times 4 + 3 \times 21. \\
3828 &= 9 + 8 + 7 + 6 \times (5^4 + 3^2 \times 1). \\
3829 &= (9 + 8 + 7 + 65) \times 43 + 2 \times 1. \\
3830 &= (9 + 8 + 7 + 65) \times 43 + 2 + 1. \\
3831 &= 9 \times (8 \times 7 \times 6 + 54) + 321. \\
3832 &= (9 + 8 \times 7 \times (6 \times 5 + 4) + 3) \times 2 \times 1. \\
3833 &= (9 + 8 \times 7 \times (6 \times 5 + 4) + 3) \times 2 + 1. \\
3834 &= 9 \times 8 + 7 + 6 \times 5^4 + 3 + 2 \times 1. \\
3835 &= 9 \times 8 + 7 + 6 + 5^4 \times 3 \times 2 \times 1. \\
3836 &= 9 \times 8 + 7 + 6 + 5^4 \times 3 \times 2 + 1. \\
3837 &= 9 + 8 + 7 + 6 \times 5^4 + 3 \times 21. \\
3838 &= 9 \times 8 + 7 + 6 \times 5^4 + 3^2 \times 1. \\
3839 &= 9 + 8 \times 7 + 6 \times 5^4 + 3 + 21. \\
3840 &= (9 + 8 \times 7 + 6) \times 54 + 3 + 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3841 &= 1 + 2^3 \times (456 + 7 + 8 + 9). \\
3842 &= (1 + 2 \times 3^4 + 56 + 7) \times (8 + 9). \\
3843 &= 12 \times 34 + 5 \times (678 + 9). \\
3844 &= 1234 + 5 \times 6 \times (78 + 9). \\
3845 &= (1 + 2) \times 34 + 5 + 6 \times 7 \times 89. \\
3846 &= (1 + 2) \times 34 \times (5 \times 6 + 7) + 8 \times 9. \\
3847 &= 1 + (2 \times 3)^4 + 5 \times (6 + 7 \times 8 \times 9). \\
3848 &= 1 \times 23 + 45 \times (6 + 7 + 8 \times 9). \\
3849 &= 1 + 23 + 45 \times (6 + 7 + 8 \times 9). \\
3850 &= (1 + 2 \times 3 + 4) \times (5 + 6 \times 7 \times 8 + 9). \\
3851 &= (1 + 2)^3 \times 4 + 5 + 6 \times 7 \times 89. \\
3852 &= 12 \times 3 \times (4 + 5 + 6) \times 7 + 8 \times 9. \\
3853 &= (123 \times 4 + 56) \times 7 + 8 + 9. \\
3854 &= 1 + (2 + 3 \times 4 \times 5) \times (6 + 7 \times 8) + 9. \\
3855 &= (1 + 2) \times (34 + 5) + 6 \times 7 \times 89. \\
3856 &= 1 \times 2 \times (34 \times 56 + 7 + 8 + 9). \\
3857 &= (1 \times 2^3 \times 4 + 5) \times (6 + 7) \times 8 + 9. \\
3858 &= 1 \times 2 \times 3 \times 4 \times 5 + 6 \times 7 \times 89. \\
3859 &= 1 + 2 \times 3 \times 4 \times 5 + 6 \times 7 \times 89. \\
3860 &= 1 + ((2 + 3)^4 + 5) \times 6 + 7 + 8 \times 9. \\
3861 &= 12 \times 3 + 45 \times (6 + 7 + 8 \times 9). \\
3862 &= 1 + (23 + 4) \times (56 + 78 + 9). \\
3863 &= 1 \times 2 + 3^4 + 5 \times (6 + 78) \times 9. \\
3864 &= 1 \times 2 \times 3 \times 4 \times (5 + 67 + 89). \\
3865 &= 1 + 2 \times 3 \times 4 \times (5 + 67 + 89). \\
3866 &= 1 + 2 \times ((34 + 5) \times 6 + 7) \times 8 + 9. \\
3867 &= 1^2 \times 3 \times 4^5 + 6 + 789. \\
3868 &= 1^2 + 3 \times 4^3 + 6 + 789. \\
3869 &= 1 \times 2 + 3 \times 4^5 + 6 + 789. \\
3870 &= 123 + 4 + 5 + 6 \times 7 \times 89. \\
3871 &= (12 + 3 + 4 + 5 \times 6) \times (7 + 8 \times 9). \\
3872 &= 1 \times 23 \times 4 + 5 \times (6 + 78) \times 9. \\
3873 &= 1 \times 2 \times 34 \times 56 + 7 \times 8 + 9. \\
3874 &= 1 + 2 \times 34 \times 56 + 7 \times 8 + 9. \\
3875 &= 1 \times 2 + 3 \times 45 + 6 \times 7 \times 89. \\
3876 &= 1 + 2 + 3 \times 45 + 6 \times 7 \times 89. \\
3877 &= 1 + 2 \times (3 \times 4 + 5) \times (6 \times 7 + 8 \times 9). \\
3878 &= (1 + 23 + 4) \times 5 + 6 \times 7 \times 89. \\
3879 &= 12 + 3 \times 4^3 + 6 + 789. \\
3880 &= 1 \times 2^3 \times (4 + 56 + 7 + 89). \\
3881 &= 123 + 4 \times 5 + 6 \times 7 \times 89. \\
3882 &= 12 \times (3 + 4 + 5) + 6 \times 7 \times 89. \\
3883 &= (1 + 2) \times 3^4 + 56 \times (7 \times 8 + 9). \\
3884 &= 1 \times 2 + 3 \times 4^5 + 6 \times (7 + 8) \times 9. \\
3885 &= 12 + 3 \times 45 + 6 \times 7 \times 89. \\
3886 &= (1 + 2 \times 3)^4 + (5 + 6) \times (7 + 8) \times 9. \\
3887 &= 12 \times 3 \times 4 + 5 + 6 \times 7 \times 89. \\
3888 &= 1 + 2 \times 34 \times 56 + 7 + 8 \times 9. \\
3889 &= (123 + 4) \times 5 \times 6 + 7 + 8 \times 9. \\
3890 &= 1 \times 2 + 3 \times (4 + 5) \times 6 \times (7 + 8 + 9). \\
3891 &= 123 \times 4 + 5 \times 678 + 9. \\
3892 &= 1 \times (2^3 + 4 \times 5) \times (67 + 8 \times 9). \\
3893 &= 1 + (2^3 + 4 \times 5) \times (67 + 8 \times 9). \\
3894 &= 12 + 3 \times 4^3 + 6 \times (7 + 8) \times 9. \\
3895 &= 1 \times 2 \times 34 \times 56 + 78 + 9. \\
3896 &= 1 + 2 \times 34 \times 56 + 78 + 9. \\
3897 &= (123 + 4) \times 5 \times 6 + 78 + 9. \\
3898 &= 1 \times 2^3 \times 4 \times 5 + 6 \times 7 \times 89. \\
3899 &= 12 \times (3 + 45 \times 6) + 7 \times 89. \\
3900 &= (1 \times 2 + 3 + 4 \times 5) \times (67 + 89). \\
3901 &= 12^3 + 4 \times (5 + 67 \times 8) + 9. \\
3902 &= 1 \times 2 + 3 \times (4 + (5 + 6 + 7) \times 8 \times 9). \\
3903 &= 123 + 45 \times (67 + 8 + 9). \\
3904 &= 1 \times 2 \times 34 \times 56 + 7 + 89. \\
3905 &= 1 + 2 \times 34 \times 56 + 7 + 89. \\
3906 &= 123 + 45 + 6 \times 7 \times 89. \\
3907 &= 123 + 4 + 5 \times (6 + 78) \times 9. \\
3908 &= 1^2 \times 34 \times 5 + 6 \times 7 \times 89. \\
3909 &= 1^2 + 34 \times 5 + 6 \times 7 \times 89. \\
3910 &= 1 \times 2 + 34 \times 5 + 6 \times 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3841 &= (98 + 7 + 6 + 5 + 4) \times 32 + 1. \\
3842 &= 9 + 87 \times (6 + 5) \times 4 + 3 + 2 \times 1. \\
3843 &= 9 + 8 + 76 + 5^4 \times 3 \times 2 \times 1. \\
3844 &= 9 + 8 + 76 + 5^4 \times 3 \times 2 + 1. \\
3845 &= 9 + 8 \times 7 + (6 + 54) \times 3 \times 21. \\
3846 &= 9 \times (8 + 76) \times 5 + 4^3 + 2 \times 1. \\
3847 &= 9 + 8 \times 7 + 6 \times 5^4 + 32 \times 1. \\
3848 &= 9 + 8 \times 7 + 6 \times 5^4 + 32 + 1. \\
3849 &= 9 + 8 \times (7 \times 6 + 5 + 432 + 1). \\
3850 &= 9 + (8 + 7) \times 6 + 5^4 \times 3 \times 2 + 1. \\
3851 &= 9 + 87 + 6 \times 5^4 + 3 + 2 \times 1. \\
3852 &= 9 + 87 + 6 \times 5^4 + 3 \times 2 \times 1. \\
3853 &= 9 \times 8 + 7 + 6 \times 5^4 + 3 + 21. \\
3854 &= 9 + (876 + 5) \times 4 + 321. \\
3855 &= 9 + 87 + 6 \times 5^4 + 3^2 \times 1. \\
3856 &= 9 + 87 + 6 \times 5^4 + 3^2 + 1. \\
3857 &= 9 + 8 \times 7 + 6 \times (5^4 + 3 \times 2 + 1). \\
3858 &= (9 + 8 \times 7 + 6) \times 54 + 3 + 21. \\
3859 &= 9 \times 8 + 7 + (6 + 54) \times 3 \times 21. \\
3860 &= 98 + 7 + 6 \times 5^4 + 3 + 2 \times 1. \\
3861 &= 9 \times 8 + 7 + 6 \times 5^4 + 32 \times 1. \\
3862 &= 98 + 7 + 6 + 5^4 \times 3 \times 2 + 1. \\
3863 &= 9 + 8 + 7 \times (6 + 543) + 2 + 1. \\
3864 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 32 \times 1. \\
3865 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 32 + 1. \\
3866 &= 9 \times (8 + 76) \times 5 + 43 \times 2 \times 1. \\
3867 &= 987 + 6 \times 5 \times 4 \times (3 + 21). \\
3868 &= 9 \times 8 + 7 + 6 \times (5^4 + 3) + 21. \\
3869 &= 9 + 87 \times (6 + 5) \times 4 + 32 \times 1. \\
3870 &= 9 + 87 + 6 \times 5^4 + 3 + 21. \\
3871 &= 98 \times 7 + 65 \times (4 + 3)^2 \times 1. \\
3872 &= 98 \times 7 + 65 \times (4 + 3)^2 + 1. \\
3873 &= (9 \times 8 + 7 + 6 + 5) \times 43 + 2 + 1. \\
3874 &= (9 + 8) \times 7 + 6 \times 5^4 + 3 + 2 \times 1. \\
3875 &= (9 + 8) \times 7 + 6 + 5^4 \times 3 \times 2 \times 1. \\
3876 &= 9 + 87 + (6 + 54) \times 3 \times 21. \\
3877 &= 9 + 87 + 6 \times (5^4 + 3 + 2) + 1. \\
3878 &= 9 + 8 \times 7 + 6 \times 5^4 + 3 \times 21. \\
3879 &= 9 + 87 + 6 \times 5^4 + 32 + 1. \\
3880 &= 9 + (8 + 7 + 6 \times 5) \times 43 \times 2 + 1. \\
3881 &= 9 + (87 + 6 \times 5 + 4) \times 32 \times 1. \\
3882 &= 987 + 6 + (5 + 4) \times 321. \\
3883 &= 9 + 87 + (6 + 5^4) \times 3 \times 2 + 1. \\
3884 &= (98 \times (7 + 6) + 5 \times 4) \times 3 + 2 \times 1. \\
3885 &= 987 + 6 \times (5 \times 4 + 3) \times 21. \\
3886 &= 98 + 7 + 6 \times (5^4 + 3 + 2) + 1. \\
3887 &= 98 + 7 + 6 \times 5^4 + 32 \times 1. \\
3888 &= 98 + 7 + 6 \times 5^4 + 32 + 1. \\
3889 &= 9 + (8 + 76 \times 5) \times (4 + 3 + 2 + 1). \\
3890 &= 98 + 7 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
3891 &= 98 + 7 \times 6 + 5^4 \times 3 \times 2 + 1. \\
3892 &= 9 \times 8 + 7 + 6 \times 5^4 + 3 \times 21. \\
3893 &= (98 \times 7 + 6) \times 5 + 432 + 1. \\
3894 &= 98 + 7 + 6 \times (5^4 + 3) + 21. \\
3895 &= (9 + 8) \times 7 \times 6 \times 5 + 4 + 321. \\
3896 &= (9 + 8) \times 7 + 6 \times 5^4 + 3^{(2+1)}. \\
3897 &= (9 + 8 \times 7 + 6) \times 54 + 3 \times 21. \\
3898 &= 9 \times 8 + 76 + 5^4 \times 3 \times 2 \times 1. \\
3899 &= 9 \times 8 + 76 + 5^4 \times 3 \times 2 + 1. \\
3900 &= 9 + 87 \times (6 + 5) \times 4 + 3 \times 21. \\
3901 &= 9 + 8 \times 7 \times 65 + 4 \times 3 \times 21. \\
3902 &= (9 + 8) \times 7 + 6 \times 5^4 + 32 + 1. \\
3903 &= 9 + 87 \times 6 \times 5 + 4 \times 321. \\
3904 &= 987 + 6 \times 54 \times 3^2 + 1. \\
3905 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times 32 \times 1. \\
3906 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times 32 + 1. \\
3907 &= (9 + 8 \times (7 \times (6 + 5) + 4) \times 3) \times 2 + 1. \\
3908 &= 9 \times (8 + 76) \times 5 + 4 \times 32 \times 1. \\
3909 &= 9 + 87 + 6 \times 5^4 + 3 \times 21. \\
3910 &= (9 + 8) \times (7 + 65 + 43) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3911 &= 1 + 2 + 34 \times 5 + 6 \times 7 \times 89. \\
3912 &= 123 + 45 \times (6 + 78) + 9. \\
3913 &= 1 \times 2 \times (34 + 5 \times 6 \times 7) \times 8 + 9. \\
3914 &= 1 + 2 \times (34 + 5 \times 6 \times 7) \times 8 + 9. \\
3915 &= 12 + 3 + (4 + 56) \times (7 \times 8 + 9). \\
3916 &= 1^2 \times (3 + 4 + 5 \times 6 + 7) \times 89. \\
3917 &= 1 \times 2 + 3 \times (4 + 5 + 6) \times (78 + 9). \\
3918 &= 1 \times (2 + 34) \times 5 + 6 \times 7 \times 89. \\
3919 &= 1 + (2 + 34) \times 5 + 6 \times 7 \times 89. \\
3920 &= 12 + 34 \times 5 + 6 \times 7 \times 89. \\
3921 &= 1 + (2 + 3^4) \times 5 + 6 + 789. \\
3922 &= 1 \times 2 + (3 + 4) \times (56 + 7 \times 8 \times 9). \\
3923 &= 1234 + 5 \times 67 \times 8 + 9. \\
3924 &= 12 \times 3 \times 4 + 5 \times (6 + 78) \times 9. \\
3925 &= (123 \times 4 + 56) \times 7 + 89. \\
3926 &= (1^2 + 3^4) \times (5 + 6 \times 7) + 8 \times 9. \\
3927 &= 123 \times 4 + 5 \times (678 + 9). \\
3928 &= 1 + 2 \times 34 \times 56 + 7 \times (8 + 9). \\
3929 &= (1 + 2 \times 34) \times 56 + 7 \times 8 + 9. \\
3930 &= 1 \times 2 \times (3 + 45 \times 6 \times 7 + 8 \times 9). \\
3931 &= 1 + 2 \times (3 + 45 \times 6 \times 7 + 8 \times 9). \\
3932 &= 12 + (3 + 4) \times (56 + 7 \times 8 \times 9). \\
3933 &= (1 + 2 + 34 + 56 \times 7 + 8) \times 9. \\
3934 &= 1 + (2 + 34) \times (5 + (6 + 7) \times 8) + 9. \\
3935 &= 1 \times (2 + 3^4) \times 5 + 6 \times (7 + 8) \times 9. \\
3936 &= 12 \times 3 + (4 + 56) \times (7 \times 8 + 9). \\
3937 &= (1 + 2 + 3 + 4) \times 56 \times 7 + 8 + 9. \\
3938 &= (12 \times 3 + 4) \times 5 + 6 \times 7 \times 89. \\
3939 &= 1 + 2 \times (34 \times 56 + 7 \times 8 + 9). \\
3940 &= (1 + (2 + 3^4)) \times 5 + 6 \times (7 + 8) \times 9. \\
3941 &= (1^2 \times 3 + 4) \times (5 + (6 + 7 \times 8) \times 9). \\
3942 &= 12 \times (3 \times 4 + 5) + 6 \times 7 \times 89. \\
3943 &= 1 \times 2 \times 34 \times 56 + (7 + 8) \times 9. \\
3944 &= 1 + 2 \times 34 \times 56 + (7 + 8) \times 9. \\
3945 &= 1 \times 23 \times (4 + 5) + 6 \times 7 \times 89. \\
3946 &= 1 + 23 \times (4 + 5) + 6 \times 7 \times 89. \\
3947 &= (1 \times 23 + 4 \times (5 + (6 + 7) \times 8) \times 9). \\
3948 &= 123 + 45 \times (6 + 7 + 8 \times 9). \\
3949 &= 1 + 2 \times (3 + 4) \times (5 \times 6 \times 7 + 8 \times 9). \\
3950 &= (1 + 23 + 4 \times 5 + 6) \times (7 + 8 \times 9). \\
3951 &= (1 + 2 \times 34) \times 56 + 78 + 9. \\
3952 &= 1 \times 2^3 \times (4 \times 5 + 6 \times (7 + 8 \times 9)). \\
3953 &= ((1 + 23) \times 4 \times 5 + 6 \times 7) \times 8 + 9. \\
3954 &= (1 + 23) \times (4 + 5) + 6 \times 7 \times 89. \\
3955 &= (12 + 3 + 4 \times 5) \times ((6 + 7) \times 8 + 9). \\
3956 &= 1^2 + (3 + 4) \times 5 \times ((6 + 7) \times 8 + 9). \\
3957 &= ((1 + 2)^3 + 4 \times 5) \times (6 + 78) + 9. \\
3958 &= 1 + 2 + (3 + 4) \times 5 \times ((6 + 7) \times 8 + 9). \\
3959 &= 1234 + 5 \times (67 \times 8 + 9). \\
3960 &= 1^2 \times 3456 + 7 \times 8 \times 9. \\
3961 &= 1^2 + 3456 + 7 \times 8 \times 9. \\
3962 &= 1 \times 2 + 3456 + 7 \times 8 \times 9. \\
3963 &= 1 + 2 + 3456 + 7 \times 8 \times 9. \\
3964 &= 1 + (2 + 3) \times 45 + 6 \times 7 \times 89. \\
3965 &= 1 + 2 \times (3 + 45 \times 6 \times 7 + 89). \\
3966 &= 1 \times 2 \times (34 \times 56 + 7 + 8 \times 9). \\
3967 &= 1 + 2 \times (34 \times 56 + 7 + 8 \times 9). \\
3968 &= (12 + 34) \times 5 + 6 \times 7 \times 89. \\
3969 &= (12 + 3) \times (4 \times 5 + 6 + 7) \times 8 + 9. \\
3970 &= 1 + 2 \times 3 \times 4 \times (5 + 6) \times (7 + 8) + 9. \\
3971 &= -1 + 2 + (3 + 4) \times 567 - 8 + 9. \\
3972 &= 12 + 3456 + 7 \times 8 \times 9. \\
3973 &= (1 \times 2 + 3^4) \times (5 + 6 \times 7) + 8 \times 9. \\
3974 &= 1 + (2 + 3^4) \times (5 + 6 \times 7) + 8 \times 9. \\
3975 &= 1^{234} \times 5 \times (6 + 789). \\
3976 &= 1^{234} + 5 \times (6 + 789). \\
3977 &= 1 \times 234 + 5 + 6 \times 7 \times 89. \\
3978 &= 1 + 234 + 5 + 6 \times 7 \times 89. \\
3979 &= 1^{23} \times 4 + 5 \times (6 + 789). \\
3980 &= 1 \times 2 + 34 \times (5 \times 6 + 78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3911 &= 9 + 8 \times 7 + 6 \times (5 \times 4 \times 32 + 1). \\
3912 &= 9 \times 8 \times 7 + 6 + 54 \times 3 \times 21. \\
3913 &= 987 + 65 \times (43 + 2) + 1. \\
3914 &= 9 + (8 + 7) \times 65 \times 4 + 3 + 2 \times 1. \\
3915 &= 9 + (8 + 7) \times 65 \times 4 + 3 \times 2 \times 1. \\
3916 &= 9 + (8 + 7) \times 65 \times 4 + 3 \times 2 + 1. \\
3917 &= 9 \times 8 + 7 \times (6 + 543) + 2 \times 1. \\
3918 &= 98 + 7 + 6 \times 5^4 + 3 \times 21. \\
3919 &= 9 \times 8 + 7 + 6 \times 5 \times 4^3 \times 2 \times 1. \\
3920 &= 9 \times 8 + 7 + 6 \times 5 \times 4 \times 32 + 1. \\
3921 &= 98 + 7 \times 6 \times (5 + 43 \times 2) + 1. \\
3922 &= 9 \times (8 + 7) + (6 + 5^4) \times 3 \times 2 + 1. \\
3923 &= 9 + 8 + (7 \times 6 + 5 \times 4) \times 3 \times 21. \\
3924 &= 98 + 76 + 5^4 \times 3 \times 2 \times 1. \\
3925 &= 98 + 76 + 5^4 \times 3 \times 2 + 1. \\
3926 &= 9 + 87 \times (6 + 5 + 4) \times 3 + 2 \times 1. \\
3927 &= (9 \times 8 + 7 + 65 + 43) \times 21. \\
3928 &= 9 + (8 + 76 + 5^4 \times 3) \times 2 + 1. \\
3929 &= 9 \times 8 + 7 \times (6 + 543 + 2) \times 1. \\
3930 &= (9 + 8 + 7 + 6 + 5^4) \times 3 \times 2 \times 1. \\
3931 &= (9 + 8 + 7 + 6 + 5^4) \times 3 \times 2 + 1. \\
3932 &= 9 \times 8 \times 7 \times 6 + 5 + 43 \times 21. \\
3933 &= 9 + 87 \times 6 + 54 \times 3 \times 21. \\
3934 &= 9 \times (8 \times (7 + 6) + 5) \times 4 + 3^2 + 1. \\
3935 &= (987 + 6 \times 54) \times 3 + 2 \times 1. \\
3936 &= 9 + 87 + 6 \times 5 \times 4 \times 32 \times 1. \\
3937 &= 9 + 87 + 6 \times 5 \times 4 \times 32 + 1. \\
3938 &= 9 \times 87 + (6 + 5^4) \times (3 + 2) \times 1. \\
3939 &= (9 + 87 \times 6) \times 5 + 4 \times 321. \\
3940 &= 9 \times (8 + 7 + 6) + 5^4 \times 3 \times 2 + 1. \\
3941 &= 9 + (8 + 7) \times 65 \times 4 + 32 \times 1. \\
3942 &= 9 + (8 + 7) \times 65 \times 4 + 32 + 1. \\
3943 &= 98 + 7 \times (6 + 543) + 2 \times 1. \\
3944 &= 98 + 7 \times (6 + 543) + 2 + 1. \\
3945 &= 98 + 7 + 6 \times 5 \times 4 \times 32 \times 1. \\
3946 &= 98 \times 7 + 6 \times 543 + 2 \times 1. \\
3947 &= 98 \times 7 + 6 \times 543 + 2 + 1. \\
3948 &= 9 + 8 + 7 + 654 \times 3 \times 2 \times 1. \\
3949 &= 9 + 8 + 7 + 654 \times 3 \times 2 + 1. \\
3950 &= (9 \times 8 + 7) \times (6 + 5 \times 4 + 3 + 21). \\
3951 &= 98 \times (7 + 6 \times 5) + 4 + 321. \\
3952 &= 9 + 8 \times 76 \times 5 + 43 \times 21. \\
3953 &= (98 \times 7 + 6 + 5^4) \times 3 + 2 \times 1. \\
3954 &= (987 + 6 \times 54) \times 3 + 21. \\
3955 &= 98 + 7 \times (6 + 543 + 2 \times 1). \\
3956 &= 98 \times 7 + 654 \times (3 + 2) \times 1. \\
3957 &= 98 \times 7 + 654 \times (3 + 2) + 1. \\
3958 &= (9 \times 87 + 6) \times 5 + 4 + 3^2 \times 1. \\
3959 &= (9 + 8) \times 7 + 6 \times 5 \times 4 \times 32 \times 1. \\
3960 &= (9 + 8) \times 7 + 6 \times 5 \times 4^3 \times 2 + 1. \\
3961 &= 9 + 8 \times (7 + 6) \times (5 + 4 \times 3 + 21). \\
3962 &= 98 + 7 \times (6 + 543) + 21. \\
3963 &= 9 + 87 \times 6 \times 5 + 4^3 \times 21. \\
3964 &= (9 + 8) \times 7 \times 6 + (54 + 3)^2 + 1. \\
3965 &= 98 \times 7 + 6 \times 543 + 21. \\
3966 &= 9 + 87 + 6 \times 5 \times 43 \times (2 + 1). \\
3967 &= 9 + 8 + 7 + 6 \times (5^4 + 32) + 1. \\
3968 &= 9 \times 87 + 65 \times (4 + 3)^2 \times 1. \\
3969 &= (9 \times 87 + 6) \times 5 + 4 \times 3 \times 2 \times 1. \\
3970 &= 9 \times 8 \times 7 \times 6 + 5^4 + 321. \\
3971 &= 9 \times (87 + 6 + 54) \times 3 + 2 \times 1. \\
3972 &= 9 \times (87 + 6 + 54) \times 3 + 2 + 1. \\
3973 &= (9 \times 87 + 6) \times 5 + 4 + 3 + 21. \\
3974 &= 9 + 8 \times 7 \times 65 + 4 + 321. \\
3975 &= 98 + 7 + 6 \times 5 \times 43 \times (2 + 1). \\
3976 &= 9 \times (8 + 7) + 6 \times 5 \times 4 \times 32 + 1. \\
3977 &= 987 + 65 \times (43 + 2 + 1). \\
3978 &= (9 + 87) \times 6 + 54 \times 3 \times 21. \\
3979 &= (9 \times 8 + 7 \times 6 + 5^4 \times 3) \times 2 + 1. \\
3980 &= -98 + 7 + 6 \times 5^4 + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
3981 &= 1 + 2 + 34 \times (5 \times 6 + 78 + 9). \\
3982 &= 1 \times 2 \times (34 \times 56 + 78 + 9). \\
3983 &= 1 + 2 \times (34 \times 56 + 78 + 9). \\
3984 &= 1 \times 2 + 3 + 4 + 5 \times (6 + 789). \\
3985 &= 1 \times 2 \times 3 + 4 + 5 \times (6 + 789). \\
3986 &= 1 + 2 \times 3 + 4 + 5 \times (6 + 789). \\
3987 &= 123 \times (4 \times 5 + 6) + 789. \\
3988 &= 1 \times 2 + (3 + 4) \times 567 + 8 + 9. \\
3989 &= 1 + 2 + (3 + 4) \times 567 + 8 + 9. \\
3990 &= 12 + 34 \times (5 \times 6 + 78 + 9). \\
3991 &= 1^2 + 3 + (45 + 6) \times 78 + 9. \\
3992 &= 1 \times 2 + 3 + (45 + 6) \times 78 + 9. \\
3993 &= 1 + 2 + 3 + (45 + 6) \times 78 + 9. \\
3994 &= 12 + 3 + 4 + 5 \times (6 + 789). \\
3995 &= (123 + 45 + 67) \times (8 + 9). \\
3996 &= 12 \times (34 + 5 \times 6 \times 7 + 89). \\
3997 &= 1 + (2^3 \times 45 + 6 + 78) \times 9. \\
3998 &= 12 + (3 + 4) \times 567 + 8 + 9. \\
3999 &= 12 + 3 \times 4 + 5 \times (6 + 789). \\
4000 &= 1 + 2 \times 3 \times 4 + 5 \times (6 + 789). \\
4001 &= 12 \times 3^4 + 5 + 6 \times 7 \times 8 \times 9. \\
4002 &= 12 + 3 + (45 + 6) \times 78 + 9. \\
4003 &= 1 + 23 + 4 + 5 \times (6 + 789). \\
4004 &= (1 + 23 + 4) \times (56 + 78 + 9). \\
4005 &= (1 \times 23 + 4 + 5 + 6 + 7) \times 89. \\
4006 &= (1 + 2)^3 + 4 + 5 \times (6 + 789). \\
4007 &= 1 \times 2^3 \times 4 + 5 \times (6 + 789). \\
4008 &= 1 + 2^3 \times 4 + 5 \times (6 + 789). \\
4009 &= 1 + 2 \times 3 \times 45 + 6 \times 7 \times 89. \\
4010 &= 1 \times 23 + (45 + 6) \times 78 + 9. \\
4011 &= 1 \times 2 + 34 + 5 \times (6 + 789). \\
4012 &= 1 + 2 + 34 + 5 \times (6 + 789). \\
4013 &= 12^3 + 4 \times 567 + 8 + 9. \\
4014 &= 12 \times (3 + 4 \times 5) + 6 \times 7 \times 89. \\
4015 &= 12 \times 3 + 4 + 5 \times (6 + 789). \\
4016 &= (1 + (2 \times 3 + 4) \times 56) \times 7 + 89. \\
4017 &= (1 + 2) \times (3 + 4^2) + (6 + 7) \times 8 \times 9. \\
4018 &= (1 + 2 \times 3) \times (4 + 5 \times (6 \times 7 + 8 \times 9)). \\
4019 &= -1 \times 2 + 3 \times 4 \times 5 \times 67 - 8 + 9. \\
4020 &= 12 + 3 \times 4^2 + (6 + 7) \times 8 \times 9. \\
4021 &= 12 + 34 + 5 \times (6 + 789). \\
4022 &= 1 + (2 \times 3)^4 + 5 \times (67 \times 8 + 9). \\
4023 &= 12 \times 3 + (45 + 6) \times 78 + 9. \\
4024 &= 1234 + 5 \times (6 + 7 \times 8) \times 9. \\
4025 &= 1 + (2 + 3)^4 + 5 \times 678 + 9. \\
4026 &= 1 + (23 \times 4 \times 5 + 6 \times 7) \times 8 + 9. \\
4027 &= 1 - 2 \times 3 \times 4 + 5 \times 6 \times (7 + 8) \times 9. \\
4028 &= 12 - 34 + 5 \times 6 \times (7 + 8) \times 9. \\
4029 &= (1 + 2)^3 \times 4 \times 5 \times 6 + 789. \\
4030 &= (12 \times 3 + 4 \times 5 + 6) \times (7 \times 8 + 9). \\
4031 &= (12 + 3 \times 4 + 5) \times (67 + 8 \times 9). \\
4032 &= 123 \times 4 + 5 \times (6 + 78 \times 9). \\
4033 &= 1 + 2^3 \times 4 \times (5 \times 6 + 7 + 89). \\
4034 &= 1 \times 2 + (3 \times 4 + 5 \times 6) \times (7 + 89). \\
4035 &= 1 + 2 + 3 + (45 + 6) \times (7 + 8 \times 9). \\
4036 &= 1 + 2 \times 3 + (45 + 6) \times (7 + 8 \times 9). \\
4037 &= 1^2 \times 3 \times 4 \times 5 \times 67 + 8 + 9. \\
4038 &= (12 + 3) \times 4 \times 5 + 6 \times 7 \times 89. \\
4039 &= 1 \times 2 + 3 \times 4 \times 5 \times 67 + 8 + 9. \\
4040 &= 1 + 2 + 3 \times 4 \times 5 \times 67 + 8 + 9. \\
4041 &= 1^2 \times (3 + 4) \times 567 + 8 \times 9. \\
4042 &= 1^2 + (3 + 4) \times 567 + 8 \times 9. \\
4043 &= 1 \times 2 + (3 + 4) \times 567 + 8 \times 9. \\
4044 &= 1 + 2 \times 34 + 5 \times (6 + 789). \\
4045 &= 1 + 2 \times 3 \times (45 + 6 + 7 \times 89). \\
4046 &= 1^2 \times 34 \times (5 + 6 \times 7 + 8 \times 9). \\
4047 &= 1^2 + 34 \times (5 + 6 \times 7 + 8 \times 9). \\
4048 &= 12 \times 34 + 56 \times (7 \times 8 + 9). \\
4049 &= 12 + 3 \times 4 \times 5 \times 67 + 8 + 9. \\
4050 &= (12 + 3 \times 4 \times 5 \times 6 + 78) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
3981 &= (9 \times 87 + 6) \times 5 + 4 + 32 \times 1. \\
3982 &= (9 \times 87 + 6) \times 5 + 4 + 32 + 1. \\
3983 &= 9 + 8 + (7 + 654) \times 3 \times 2 \times 1. \\
3984 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times (32 + 1). \\
3985 &= (9 \times 8 \times 7 + 65) \times (4 + 3) + 2 \times 1. \\
3986 &= (9 \times 8 \times 7 + 65) \times (4 + 3) + 2 + 1. \\
3987 &= 9 \times (87 + 6 \times 54 + 32 \times 1). \\
3988 &= (9 + 8 \times 76) \times 5 + 43 \times 21. \\
3989 &= 9 + 8 \times 7 + 654 \times 3 \times 2 \times 1. \\
3990 &= 9 + 8 \times 7 + 654 \times 3 \times 2 + 1. \\
3991 &= (9 \times 87 + 6) \times 5 + 43 + 2 + 1. \\
3992 &= (9 \times 8 + 7 \times 6) \times 5 \times (4 + 3) + 2 \times 1. \\
3993 &= 9 \times 8 \times (7 \times 6 + 5 + 4) + 321. \\
3994 &= (9 \times 87 + 6) \times 5 + (4 + 3)^2 \times 1. \\
3995 &= 9 + 8 \times (7 \times 65 + 43) + 2 \times 1. \\
3996 &= 9 \times (87 + 6 \times 54 + 32 + 1). \\
3997 &= (987 + 6 + 5) \times 4 + 3 + 2 \times 1. \\
3998 &= (987 + 6 + 5) \times 4 + 3 + 2 + 1. \\
3999 &= (987 + 6 + 5) \times 4 + 3 \times 2 + 1. \\
4000 &= (9 + 8 \times 7 + 6 + 54) \times 32 \times 1. \\
4001 &= (987 + 6 + 5) \times 4 + 3^2 \times 1. \\
4002 &= (9 + 8) \times 7 \times 6 \times 5 + 432 \times 1. \\
4003 &= 9 \times 8 + 7 + 654 \times 3 \times 2 \times 1. \\
4004 &= 9 \times 8 + 7 + 654 \times 3 \times 2 + 1. \\
4005 &= (98 + 76) \times (5 \times 4 + 3) + 2 + 1. \\
4006 &= (9 + 8 + 7 + 65) \times (43 + 2) + 1. \\
4007 &= 9 + 8 + 7 \times (6 + 543 + 21). \\
4008 &= 9 \times 8 \times (7 + 6 \times 5) + 4^3 \times 21. \\
4009 &= (9 \times 87 + 6) \times 5 + 43 + 21. \\
4010 &= 9 + (8 \times 7 + 65 + 4) \times 32 + 1. \\
4011 &= (98 + 76 + 5 + 4 \times 3) \times 21. \\
4012 &= (9 \times 87 + 6) \times 5 + 4 + 3 \times 21. \\
4013 &= 9 + 8 \times 7 + 6 \times (5^4 + 32 + 1). \\
4014 &= 9 + 8 \times (7 \times 65 + 43) + 21. \\
4015 &= ((9 + 8) \times (7 \times 6 + 5) + 4) \times (3 + 2) \times 1. \\
4016 &= (987 + 6 + 5) \times 4 + 3 + 21. \\
4017 &= 9 + 8 \times (7 \times 65 + 43 + 2 + 1). \\
4018 &= (9 + 8 + (7 + 6) \times 5) \times (4 + 3)^2 \times 1. \\
4019 &= 9 + 8 \times 76 + 54 \times 3 \times 21. \\
4020 &= 9 + 87 + 654 \times 3 \times 2 \times 1. \\
4021 &= 9 + 87 + 654 \times 3 \times 2 + 1. \\
4022 &= (98 \times 7 + 654) \times 3 + 2 \times 1. \\
4023 &= (98 + 76) \times (5 \times 4 + 3) + 21. \\
4024 &= (987 + 6 + 5) \times 4 + 32 \times 1. \\
4025 &= (987 + 6 + 5) \times 4 + 32 + 1. \\
4026 &= (9 + 8 \times 76 + 54) \times 3 \times 2 \times 1. \\
4027 &= (9 + 8 \times 76 + 54) \times 3 \times 2 + 1. \\
4028 &= 98 \times (7 + 6 \times 5 + 4) + 3^2 + 1. \\
4029 &= 98 + 7 + 654 \times 3 \times 2 \times 1. \\
4030 &= 98 + 7 + 654 \times 3 \times 2 + 1. \\
4031 &= (9 \times 87 + 6) \times 5 + 43 \times 2 \times 1. \\
4032 &= (9 \times 87 + 6) \times 5 + 43 \times 2 + 1. \\
4033 &= (9 \times 8 + 7 + 6 \times 5) \times (4 + 32 + 1). \\
4034 &= (9 + 87) \times (6 \times 5 + 4 \times 3) + 2 \times 1. \\
4035 &= (9 + 87) \times (6 \times 5 + 4 \times 3) + 2 + 1. \\
4036 &= (9 + 8 + (7 \times 6 + 5^4) \times 3) \times 2 \times 1. \\
4037 &= (9 + 8 + (7 \times 6 + 5^4) \times 3) \times 2 + 1. \\
4038 &= 9 \times 8 + (7 + 654) \times 3 \times 2 \times 1. \\
4039 &= 9 \times 8 + (7 + 654) \times 3 \times 2 + 1. \\
4040 &= ((9 + 8) \times 76 + 54) \times 3 + 2 \times 1. \\
4041 &= ((9 + 8) \times 76 + 54) \times 3 + 2 + 1. \\
4042 &= 98 \times (7 + 6 \times 5 + 4) + 3 + 21. \\
4043 &= 9 \times 87 + 6 \times 543 + 2 \times 1. \\
4044 &= 9 \times 87 + 6 \times 543 + 2 + 1. \\
4045 &= 9 + 8 + 76 \times (5 \times 4 + 32 + 1). \\
4046 &= (9 \times 8 + 76 + 5^4 \times 3) \times 2 \times 1. \\
4047 &= 98 + 7 + 6 \times (5^4 + 32) \times 1. \\
4048 &= 98 + 7 + 6 \times (5^4 + 32) + 1. \\
4049 &= 9 + 8 \times (7 + 65 + 432 + 1). \\
4050 &= 98 + 76 \times (5 \times 4 + 32) \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4051 &= 1^2 \times 3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4052 &= 1^2 + 3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4053 &= 12 + (3 + 4) \times 567 + 8 \times 9. \\
4054 &= 1 + 2 + 3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4055 &= 1 + 2 \times 3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4056 &= 1 \times 2^3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4057 &= 1 + 2^3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4058 &= 1^2 \times (3 + 4) \times 567 + 89. \\
4059 &= 1 \times 23 \times 45 + 6 \times 7 \times 8 \times 9. \\
4060 &= 1 \times 2 + (3 + 4) \times 567 + 89. \\
4061 &= 1 + 2 + (3 + 4) \times 567 + 89. \\
4062 &= (12 + 3) \times 4 \times 56 + 78 \times 9. \\
4063 &= 12 + 3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4064 &= 12^3 + 4 \times (567 + 8 + 9). \\
4065 &= 12 \times (3 + 45 \times 6) + 789. \\
4066 &= 1 + 2 \times 3 + 45 \times 6 \times (7 + 8) + 9. \\
4067 &= 1 \times 23 \times 4 + 5 \times (6 + 789). \\
4068 &= 12^3 + 4 \times 567 + 8 \times 9. \\
4069 &= 12 + 3 + 4 + 5 \times 6 \times (7 + 8) \times 9. \\
4070 &= (123 + 456) \times 7 + 8 + 9. \\
4071 &= 1 \times 23 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4072 &= 1 + 23 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4073 &= 1 \times 23 + (4 + 5) \times (6 \times 7 + 8) \times 9. \\
4074 &= 12 + 3 \times 4 + 5 \times 6 \times (7 + 8) \times 9. \\
4075 &= (1 + 2)^3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4076 &= 123 \times (4 \times 5 + 6 + 7) + 8 + 9. \\
4077 &= 1 \times 23 + 4 + 5 \times 6 \times (7 + 8) \times 9. \\
4078 &= 1 \times 2 \times 34 \times 5 + 6 \times 7 \times 89. \\
4079 &= 1 + 2 \times 34 \times 5 + 6 \times 7 \times 89. \\
4080 &= 1^2 + 3456 + 7 \times 89. \\
4081 &= 12^3 + 4 + 5 \times 6 \times 78 + 9. \\
4082 &= 1 + 2 + 3456 + 7 \times 89. \\
4083 &= 1 + 23 + 45 \times 6 \times (7 + 8) + 9. \\
4084 &= 12 \times 3 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4085 &= 1 \times 2 + 345 + 6 \times 7 \times 89. \\
4086 &= 1 + 2 + 345 + 6 \times 7 \times 89. \\
4087 &= 1 + 2 + 34 + 5 \times 6 \times (7 + 8) \times 9. \\
4088 &= (1^2 \times 3 + 4) \times (567 + 8 + 9). \\
4089 &= (123 \times 4 + 5 + 6 + 7) \times 8 + 9. \\
4090 &= (1 + 2 \times 3)^4 + 5 \times 6 \times 7 \times 8 + 9. \\
4091 &= 12 + 3456 + 7 \times 89. \\
4092 &= 1^2 \times 3 \times 4 \times 5 \times 67 + 8 \times 9. \\
4093 &= 1^2 + 3 \times 4 \times 5 \times 67 + 8 \times 9. \\
4094 &= 1 \times 2 + 3 \times 4 \times 5 \times 67 + 8 \times 9. \\
4095 &= 12 + 345 + 6 \times 7 \times 89. \\
4096 &= 12 + 34 + 5 \times 6 \times (7 + 8) \times 9. \\
4097 &= 1 \times 2 + (3 + 4 + 56) \times (7 \times 8 + 9). \\
4098 &= 1 \times 2^3 \times 45 + 6 \times 7 \times 89. \\
4099 &= 1 + 2^3 \times 45 + 6 \times 7 \times 89. \\
4100 &= 12 + (3 + 4) \times (567 + 8 + 9). \\
4101 &= (1 + 2) \times (3 + 4 \times 5 \times 67) + 8 \times 9. \\
4102 &= 123 + 4 + 5 \times (6 + 789). \\
4103 &= (12 + 34) \times (5 + 6 + 78) + 9. \\
4104 &= 12 + 3 \times 4 \times 5 \times 67 + 8 \times 9. \\
4105 &= 1 + 2 \times (3 + 45) \times 6 \times 7 + 8 \times 9. \\
4106 &= 1 + 2^3 \times (456 + 7 \times 8) + 9. \\
4107 &= 12 + (3 + 4 + 56) \times (7 \times 8 + 9). \\
4108 &= (12^3 + 45 + 6) \times (7 + 8 \times 9). \\
4109 &= 1^2 \times 3 \times 4 \times 5 \times 67 + 89. \\
4110 &= 1^2 + 3 \times 4 \times 5 \times 67 + 89. \\
4111 &= 1 \times 2 + 3 \times 4 \times 5 \times 67 + 89. \\
4112 &= 1 + 2 + 3 \times 4 \times 5 \times 67 + 89. \\
4113 &= 12 + 3 \times 4 \times (5 + 6 \times 7 \times 8) + 9. \\
4114 &= 1234 + 5 \times 6 \times (7 + 89). \\
4115 &= (12 + 3) \times 45 \times 6 + 7 \times 8 + 9. \\
4116 &= 1 \times 2 + 34 \times (56 + 7 \times 8 + 9). \\
4117 &= 12 \times 3^4 + 56 \times 7 \times 8 + 9. \\
4118 &= 1 \times 2 \times 34 + 5 \times 6 \times (7 + 8) \times 9. \\
4119 &= 12 \times 3 \times 4 + 5 \times (6 + 789). \\
4120 &= (1^2 + 3 + 4) \times (5 + 6 + 7 \times 8 \times 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4051 &= 98 + 76 \times (5 \times 4 + 32) + 1. \\
4052 &= (9 + 8) \times 7 \times (6 \times 5 + 4) + 3 \times 2 \times 1. \\
4053 &= (98 + 7) \times 6 \times 5 + 43 \times 21. \\
4054 &= 9 \times 87 + 654 \times (3 + 2) + 1. \\
4055 &= (987 + 6 + 5) \times 4 + 3 \times 21. \\
4056 &= 9 + 87 + 6 \times 5 \times 4 \times (32 + 1). \\
4057 &= 9 + 8 \times (7 \times 6 \times 5 + 43) \times 2 \times 1. \\
4058 &= 98 \times (7 + 6 \times 5) + 432 \times 1. \\
4059 &= 98 \times (7 + 6 \times 5) + 432 + 1. \\
4060 &= 9 \times (8 + 7) \times 6 \times 5 + 4 + 3 \times 2 \times 1. \\
4061 &= 9 \times (8 + 7) \times 6 \times 5 + 4 + 3 \times 2 + 1. \\
4062 &= 9 \times 87 + 6 \times 543 + 21. \\
4063 &= 9 \times (8 + 7) \times 6 \times 5 + 4 + 3^2 \times 1. \\
4064 &= 98 + (7 + 654) \times 3 \times 2 \times 1. \\
4065 &= 98 + (7 + 654) \times 3 \times 2 + 1. \\
4066 &= (9 + 8 + 7 \times 6 \times (5 + 43)) \times 2 \times 1. \\
4067 &= 98 + (76 + 5) \times (4 + 3)^2 \times 1. \\
4068 &= (9 + 8 + 7 + 654) \times 3 \times 2 \times 1. \\
4069 &= (9 + 8 + 7 + 654) \times 3 \times 2 + 1. \\
4070 &= 98 \times 7 + 6 \times (543 + 21). \\
4071 &= (9 + 8 + 7 \times 6) \times (5 + 43 + 21). \\
4072 &= 9 + 876 \times 5 + 4 - 321. \\
4073 &= (987 + 6 \times 5) \times 4 + 3 + 2 \times 1. \\
4074 &= 9 \times (8 + 7) \times 6 \times 5 + 4 \times 3 \times 2 \times 1. \\
4075 &= 9 \times (8 + 7) \times 6 \times 5 + 4 \times 3 \times 2 + 1. \\
4076 &= (9 + 8 + (7 \times 6 + 5) \times 43) \times 2 \times 1. \\
4077 &= (987 + 6 \times 5) \times 4 + 3^2 \times 1. \\
4078 &= 9 \times (8 + 7) \times 6 \times 5 + 4 + 3 + 21. \\
4079 &= 9 \times 8 \times 7 + (6 + 5) \times (4 + 321). \\
4080 &= (98 + 7 + 65) \times 4 \times 3 \times 2 \times 1. \\
4081 &= 9 + 8 \times 7 \times 65 + 432 \times 1. \\
4082 &= 9 + 8 \times 7 \times 65 + 432 + 1. \\
4083 &= 9 \times (8 + 7) \times 6 \times 5 + 4 \times 3 + 21. \\
4084 &= 9 + 8 + 7 \times (65 \times 4 + 321). \\
4085 &= (9 \times 8 \times (7 + 6) + 5) \times 4 + 321. \\
4086 &= 9 \times (87 + 6) + (54 + 3)^2 \times 1. \\
4087 &= 9 \times (8 + 7) \times 6 \times 5 + 4 + 32 + 1. \\
4088 &= 98 + 7 \times (6 + 543 + 21). \\
4089 &= 9 + 8 \times (76 + 5 + 4) \times 3 \times 2 \times 1. \\
4090 &= 9 + 8 \times (76 + 5 + 4) \times 3 \times 2 + 1. \\
4091 &= 9 + 8 + 7 \times 6 \times ((5 + 43) \times 2 + 1). \\
4092 &= (987 + 6 \times 5) \times 4 + 3 + 21. \\
4093 &= 9 \times (8 \times 7 \times 6 + 5) + 4(3 + 2) \times 1. \\
4094 &= 98 \times 7 + 6 + 54 \times 3 \times 21. \\
4095 &= 9 + 8 + 7 + 6 \times 5^4 + 321. \\
4096 &= 9 + 8 \times 7 \times 6 + 5^4 \times 3 \times 2 + 1. \\
4097 &= (9 + 8) \times (76 + 54 \times 3 + 2 + 1). \\
4098 &= (98 + 76 + 5^4 \times 3) \times 2 \times 1. \\
4099 &= 9 \times (8 + 7 \times 6) \times 5 + 43^2 \times 1. \\
4100 &= (987 + 6 \times 5) \times 4 + 32 \times 1. \\
4101 &= (987 + 6 \times 5) \times 4 + 32 + 1. \\
4102 &= 98 \times 7 \times 6 - 5 \times 4 + 3 \times 2 \times 1. \\
4103 &= 9 + (8 \times 7 \times 6 + 5) \times 4 \times 3 + 2 \times 1. \\
4104 &= 9 \times 8 + 7 \times 6 \times (5 + 43) \times 2 \times 1. \\
4105 &= 9 \times 8 + 7 \times 6 \times (5 + 43) \times 2 + 1. \\
4106 &= (9 + 8 \times 7 + 6 \times 5) \times 43 + 21. \\
4107 &= (98 + 7 + 6) \times (5 \times (4 + 3) + 2 \times 1). \\
4108 &= 9 + (87 + 654 \times 3) \times 2 + 1. \\
4109 &= (9 + 8) \times 7 \times (6 \times 5 + 4) + 3 \times 21. \\
4110 &= 9 \times 8 \times 7 \times 6 + 543 \times 2 \times 1. \\
4111 &= 9 \times 8 \times 7 \times 6 + 543 \times 2 + 1. \\
4112 &= 9 + 8 + 7 \times 65 \times (4 + 3 + 2) \times 1. \\
4113 &= 9 + 8 \times (76 + 5 + 432 \times 1). \\
4114 &= 9 \times (8 + 7) \times 6 \times 5 + 43 + 21. \\
4115 &= 9 \times 8 + (7 \times 6 + 5) \times 43 \times 2 + 1. \\
4116 &= 9 \times (8 + 7) \times 6 \times 5 + 4^3 + 2 \times 1. \\
4117 &= 9 \times (8 + 7) \times 6 \times 5 + 4 + 3 \times 21. \\
4118 &= 987 + 6 + 5^4 \times (3 + 2) \times 1. \\
4119 &= 987 + 6 + 5^4 \times (3 + 2) + 1. \\
4120 &= 98 \times 7 \times 6 - 5 \times 4 + 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4121 &= 12 + 3 \times 4 \times 5 \times 67 + 89. \\
4122 &= 1 + 2 \times (3 + 45) \times 6 \times 7 + 89. \\
4123 &= (1 + 2 \times 3) \times (4 + (5 + 67) \times 8 + 9). \\
4124 &= 12 \times 345 - 6 + 7 - 8 - 9. \\
4125 &= (123 + 456) \times 7 + 8 \times 9. \\
4126 &= 12 + 34 \times (56 + 7 \times 8 + 9). \\
4127 &= 1 \times 2 + 3 \times 4 \times (5 \times 67 + 8) + 9. \\
4128 &= (1 + 2) \times 3 \times 456 + 7 + 8 + 9. \\
4129 &= (12 + 3) \times 45 \times 6 + 7 + 8 \times 9. \\
4130 &= 1 \times 2 \times (3 + 4) \times 5 \times (6 \times 7 + 8 + 9). \\
4131 &= 123 \times (4 + 5) + 6 \times 7 \times 8 \times 9. \\
4132 &= 123 \times 4 + 56 \times (7 \times 8 + 9). \\
4133 &= (12 + 3^4 + 5) \times 6 \times 7 + 8 + 9. \\
4134 &= 12 \times (3 + 4) + 5 \times 6 \times (7 + 8) \times 9. \\
4135 &= 1 + (2 + 3 + 45 \times 6) \times (7 + 8) + 9. \\
4136 &= 1 \times 2^3 \times (4 + ((56 + 7) \times 8 + 9)). \\
4137 &= (12 + 3) \times 45 \times 6 + 78 + 9. \\
4138 &= 1 + 2 \times 3^4 + 5 \times (6 + 789). \\
4139 &= -1 \times 2 \times 34 - 5 + 6 \times 78 \times 9. \\
4140 &= (12 + 34) \times (5 + 6 + 7 + 8 \times 9). \\
4141 &= 1^2 + (3 + 4 + 5) \times (6 \times 7 \times 8 + 9). \\
4142 &= (123 + 456) \times 7 + 89. \\
4143 &= 1^2 \times 3^4 \times 5 + 6 \times 7 \times 89. \\
4144 &= 1^2 + 3^4 \times 5 + 6 \times 7 \times 89. \\
4145 &= 1 \times 2 + 3^4 \times 5 + 6 \times 7 \times 89. \\
4146 &= 1 + 2 + 3^4 \times 5 + 6 \times 7 \times 89. \\
4147 &= 1 + (23 \times 4 + 5) \times 6 \times 7 + 8 \times 9. \\
4148 &= 123 \times (4 \times 5 + 6 + 7) + 89. \\
4149 &= (12 + 3) \times 4 \times 56 + 789. \\
4150 &= 1 + 23 \times 4 \times (5 \times 6 + 7 + 8) + 9. \\
4151 &= 12 \times 34 + 5 + 6 \times 7 \times 89. \\
4152 &= 1 \times 2^3 \times 456 + 7 \times 8 \times 9. \\
4153 &= 1 + 2^3 \times 456 + 7 \times 8 \times 9. \\
4154 &= 1 + (23 + 45 + 6) \times 7 \times 8 + 9. \\
4155 &= 12 + 3^4 \times 5 + 6 \times 7 \times 89. \\
4156 &= 1 + 2^{(3+4+5)} + 6 \times 7 + 8 + 9. \\
4157 &= 1 - 2 + 3456 + 78 \times 9. \\
4158 &= 1^2 \times 3456 + 78 \times 9. \\
4159 &= 1^2 + 3456 + 78 \times 9. \\
4160 &= 1 \times 2 + 3456 + 78 \times 9. \\
4161 &= 1 + 2 + 3456 + 78 \times 9. \\
4162 &= 1 \times 2 + (34 + 5 \times 6) \times (7 \times 8 + 9). \\
4163 &= 1 \times (23 \times 4 + 5) \times 6 \times 7 + 89. \\
4164 &= 1 \times 2 \times 345 \times 6 + 7 + 8 + 9. \\
4165 &= 1 + 2 \times 345 \times 6 + 7 + 8 + 9. \\
4166 &= 1 + (2 + 3)^4 + 5 \times (6 + 78 \times 9). \\
4167 &= (12 \times 34 + 5 + 6 \times 7 + 8) \times 9. \\
4168 &= 1 + 2^{(3+4+5)} + 6 + 7 \times 8 + 9. \\
4169 &= (1 + 2) \times 3 \times 456 + 7 \times 8 + 9. \\
4170 &= 12 + 3456 + 78 \times 9. \\
4171 &= 123 + 4^5 + 6 \times 7 \times 8 \times 9. \\
4172 &= 1 + 2 \times (345 \times 6 + 7) + 8 + 9. \\
4173 &= 123 + (4 + 5) \times (6 \times 7 + 8) \times 9. \\
4174 &= 1 + 2 \times 3 - 45 + 6 \times 78 \times 9. \\
4175 &= 1 \times 2 \times (3 + 4 \times 5 \times (6 + 7) \times 8) + 9. \\
4176 &= 12 \times (3 + 4 + 5 \times 67) + 8 \times 9. \\
4177 &= 123 + 4 + 5 \times 6 \times (7 + 8) \times 9. \\
4178 &= 1 \times 2^{(3+4)} + 5 \times 6 \times (7 + 8) \times 9. \\
4179 &= 1 + 2^{(3 \times 4)} + 5 \times (6 + 7) + 8 + 9. \\
4180 &= 1 \times 2^{(3+4+5)} + 67 + 8 + 9. \\
4181 &= 12 \times (3 \times 4 + 5 \times 67) + 8 + 9. \\
4182 &= (12 + 3 + 4 \times 56 + 7) \times (8 + 9). \\
4183 &= (1 + 2) \times 3 \times 456 + 7 + 8 \times 9. \\
4184 &= (1 + 2) \times 3 \times (456 + 7) + 8 + 9. \\
4185 &= 1 \times 2 \times 3 \times (45 + 6 \times 7) \times 8 + 9. \\
4186 &= 1 + 2 \times 3 \times (45 + 6 \times 7) \times 8 + 9. \\
4187 &= 1 + 2 \times (3 + 4) \times (5 \times 6 \times 7 + 89). \\
4188 &= 12 \times 34 + 5 \times (6 + 78) \times 9. \\
4189 &= 1 + 2 \times (345 \times 6 + 7 + 8 + 9). \\
4190 &= 1 \times 2 + 3 + 45 \times (6 + 78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4121 &= 9 + 8 \times (76 + 5 + 432 + 1). \\
4122 &= 9 + 8 + 76 \times (5 + 4) \times 3 \times 2 + 1. \\
4123 &= (9 + 8 \times (7 + 65) + 4) \times (3 \times 2 + 1). \\
4124 &= 98 \times 7 \times 6 - 5 + 4 \times 3 + 2 - 1. \\
4125 &= (9 + 8 \times 7 + 6 + 54) \times (32 + 1). \\
4126 &= 9 + 8 + 76 \times 54 + 3 + 2 \times 1. \\
4127 &= 9 + 8 + 76 \times 54 + 3 + 2 + 1. \\
4128 &= 9 + 8 + 76 \times 54 + 3 \times 2 + 1. \\
4129 &= (9 \times (8 + 7 + 6) + 5^4 \times 3) \times 2 + 1. \\
4130 &= 98 \times 7 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
4131 &= 9 + 8 + 76 \times 54 + 3^2 + 1. \\
4132 &= 98 \times 7 \times 6 + 5 + 4 + 3 \times 2 + 1. \\
4133 &= (9 + 8) \times (7 \times (6 + 5) + 4) \times 3 + 2 \times 1. \\
4134 &= 98 \times 7 \times 6 + 5 + 4 + 3^2 \times 1. \\
4135 &= 98 \times 7 \times 6 + 5 + 4 + 3^2 + 1. \\
4136 &= 9 + 8 \times 7 + 6 \times 5^4 + 321. \\
4137 &= (98 + 76 + 5 \times 4 + 3) \times 21. \\
4138 &= (9 + 8 + 76 \times (5 + 4) \times 3) \times 2 \times 1. \\
4139 &= 9 \times 8 + 7 \times (65 \times 4 + 321). \\
4140 &= 98 + (7 \times 6 + 5) \times 43 \times 2 \times 1. \\
4141 &= 98 \times 7 \times 6 + 5 \times 4 + 3 + 2 \times 1. \\
4142 &= 98 \times 7 \times 6 + 5 \times 4 + 3 + 2 + 1. \\
4143 &= 98 \times 7 \times 6 + 5 \times 4 + 3 \times 2 + 1. \\
4144 &= 98 \times 7 \times 6 - 5 + 4 \times 3 + 21. \\
4145 &= 9 + 8 + 76 \times 54 + 3 + 21. \\
4146 &= 98 \times 7 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
4147 &= (9 + (8 \times 7 + 6) \times 5) \times (4 + 3^2) \times 1. \\
4148 &= 9 + 8 + 76 \times 54 + 3^{(2+1)}. \\
4149 &= 98 \times 7 \times 6 + 5 + 4 + 3 + 21. \\
4150 &= 98 \times 7 \times 6 + (5 + 4 \times 3) \times 2 \times 1. \\
4151 &= 98 \times 7 \times 6 + (5 + 4 \times 3) \times 2 + 1. \\
4152 &= 9 + 8 + 7 + 6 \times (5^4 + 3 \times 21). \\
4153 &= 9 + 8 + 76 \times 54 + 32 \times 1. \\
4154 &= 98 \times 7 \times 6 + 5 + 4 \times 3 + 21. \\
4155 &= (9 + 8 \times 7 + 6) \times 54 + 321. \\
4156 &= 9 \times 87 \times 6 - 543 + 2 - 1. \\
4157 &= 98 \times 7 \times 6 + 5 + 4 + 32 \times 1. \\
4158 &= 98 \times 7 \times 6 + 5 + 4 + 32 + 1. \\
4159 &= 9 + (8 + 7 \times 6) \times (5 \times 4 + 3 \times 21). \\
4160 &= 98 \times 7 \times 6 + 5 \times 4 + 3 + 21. \\
4161 &= 9 + 8 \times (7 \times 65 + 43 + 21). \\
4162 &= 98 + (7 + 6 \times 5 \times 4) \times 32 \times 1. \\
4163 &= 98 + (7 + 6 \times 5 \times 4) \times 32 + 1. \\
4164 &= (9 + 87) \times 6 \times 5 + 4 \times 321. \\
4165 &= 98 + 7 \times (65 \times 4 + 321). \\
4166 &= 98 \times 7 \times 6 + 5 + 43 + 2 \times 1. \\
4167 &= 98 \times 7 \times 6 + 5 + 43 + 2 + 1. \\
4168 &= 98 \times 7 \times 6 + 5 \times 4 + 32 \times 1. \\
4169 &= 98 \times 7 \times 6 + 5 \times 4 + 32 + 1. \\
4170 &= 98 \times 7 \times 6 + (5 + 4) \times 3 \times 2 \times 1. \\
4171 &= 98 \times 7 \times 6 + 5 + (4 + 3)^2 + 1. \\
4172 &= 987 + 65 \times (4 + 3)^2 \times 1. \\
4173 &= 987 + 65 \times (4 + 3)^2 + 1. \\
4174 &= (98 + 7) \times 6 \times 5 + 4(3 + 2) \times 1. \\
4175 &= 98 \times 7 \times 6 + 54 + 3 + 2 \times 1. \\
4176 &= 98 + 7 + 6 \times 5^4 + 321. \\
4177 &= 98 \times 7 \times 6 + 54 + 3 \times 2 + 1. \\
4178 &= 98 \times 7 \times 6 + 5 \times 4 \times 3 + 2 \times 1. \\
4179 &= 98 \times 7 \times 6 + 54 + 3^2 \times 1. \\
4180 &= 98 \times 7 \times 6 + 54 + 3^2 + 1. \\
4181 &= 9 \times 8 + 76 \times 54 + 3 + 2 \times 1. \\
4182 &= 9 \times 8 + 76 \times 54 + 3 + 2 + 1. \\
4183 &= 9 \times 8 + 76 \times 54 + 3 \times 2 + 1. \\
4184 &= 9 + 8 + 76 \times 54 + 3 \times 21. \\
4185 &= 98 \times 7 \times 6 + 5 + 43 + 21. \\
4186 &= 9 + 8 + 7 + 65 \times 4^3 + 2 \times 1. \\
4187 &= 98 \times 7 \times 6 + 5 + 4^3 + 2 \times 1. \\
4188 &= 98 \times 7 \times 6 + 5 + 4 + 3 \times 21. \\
4189 &= (9 + 8 \times 7 + 6) \times (54 + 3 + 2 \times 1). \\
4190 &= (9 + 8) \times 7 + 6 \times 5^4 + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4191 &= (1 + 2) \times 3 \times 456 + 78 + 9. \\
4192 &= 1 + 2 \times 3 + 45 \times (6 + 78 + 9). \\
4193 &= 12 \times (3 + 4 + 5 \times 67) + 89. \\
4194 &= 1 \times 234 \times 5 + 6 \times 7 \times 8 \times 9. \\
4195 &= 1 + 234 \times 5 + 6 \times 7 \times 8 \times 9. \\
4196 &= 1 + (2 + 3)^4 + 5 \times 6 \times 7 \times (8 + 9). \\
4197 &= (1 + 2) \times (3 \times 456 + 7) + 8 \times 9. \\
4198 &= 1 \times 23 \times 4 \times 5 + 6 \times 7 \times 89. \\
4199 &= 12 \times 345 + 6 \times 7 + 8 + 9. \\
4200 &= (1 + 2^3) \times 456 + 7 + 89. \\
4201 &= 1 + (2 + 3) \times (45 + 6 + 789). \\
4202 &= 1 \times 2 + 3 \times 4 \times (5 + 6 \times 7 \times 8 + 9). \\
4203 &= (12 + 3^4) \times 5 + 6 \times 7 \times 89. \\
4204 &= 1 + 2^{(3 \times 4)} + 5 + 6 + 7 + 89. \\
4205 &= 1 \times 2 \times 345 \times 6 + 7 \times 8 + 9. \\
4206 &= 123 \times (4 + 5 \times 6) + 7 + 8 + 9. \\
4207 &= (1^2 + 3) \times (4^5 + 6) + 78 + 9. \\
4208 &= 1 \times 23 + 45 \times (6 + 78 + 9). \\
4209 &= 1 + 23 + 45 \times (6 + 78 + 9). \\
4210 &= 1 + 234 + 5 \times (6 + 789). \\
4211 &= 12 \times 345 + 6 + 7 \times 8 + 9. \\
4212 &= 12 + 3 \times 4 \times (5 + 6 \times 7 \times 8 + 9). \\
4213 &= 1 \times 2 + 3 \times 4^5 + 67 \times (8 + 9). \\
4214 &= 1 + 2 + 3 \times 4^5 + 67 \times (8 + 9). \\
4215 &= 1 + 2 + 3 \times (4 + 5) \times (67 + 89). \\
4216 &= 1 + 2^{(3 \times 4)} + 5 + 6 \times 7 + 8 \times 9. \\
4217 &= 1^{234} \times 5 + 6 \times 78 \times 9. \\
4218 &= (1 + 23) \times 4 \times 5 + 6 \times 7 \times 89. \\
4219 &= 1 \times 2 \times 345 \times 6 + 7 + 8 \times 9. \\
4220 &= 1 + 2 \times 345 \times 6 + 7 + 8 \times 9. \\
4221 &= 1^{23} \times 4 + 5 + 6 \times 78 \times 9. \\
4222 &= 1^{23} + 4 + 5 + 6 \times 78 \times 9. \\
4223 &= 12 + 3 \times 4^5 + 67 \times (8 + 9). \\
4224 &= 12 \times 345 + 67 + 8 + 9. \\
4225 &= 12 \times 345 + 6 + 7 + 8 \times 9. \\
4226 &= 1 \times 2 + 3 + 4 + 5 + 6 \times 78 \times 9. \\
4227 &= 1 + 2 + 3 + 4 + 5 + 6 \times 78 \times 9. \\
4228 &= 1 + 2 \times 345 \times 6 + 78 + 9. \\
4229 &= 1^2 \times 3 \times 4 + 5 + 6 \times 78 \times 9. \\
4230 &= 1 + 2^3 + 4 + 5 + 6 \times 78 \times 9. \\
4231 &= 1 \times 2 + 3 \times 4 + 5 + 6 \times 78 \times 9. \\
4232 &= 1 + 2 + 3 \times 4 + 5 + 6 \times 78 \times 9. \\
4233 &= 12 \times 345 + 6 + 78 + 9. \\
4234 &= 1 + 2^{(3 \times 4)} + 5 \times (6 + 7) + 8 \times 9. \\
4235 &= 123 \times 4 + 5 + 6 \times 7 \times 89. \\
4236 &= 12 + 3 + 4 + 5 + 6 \times 78 \times 9. \\
4237 &= 1 + 2 \times 345 \times 6 + 7 + 89. \\
4238 &= 1 + 2 + 3 + 4 \times 5 + 6 \times 78 \times 9. \\
4239 &= 1 + 2 \times 3 + 4 \times 5 + 6 \times 78 \times 9. \\
4240 &= 1 \times 2^3 + 4 \times 5 + 6 \times 78 \times 9. \\
4241 &= 12 + 3 \times 4 + 5 + 6 \times 78 \times 9. \\
4242 &= 12 \times 345 + 6 + 7 + 89. \\
4243 &= 1 \times 2 \times (345 \times 6 + 7) + 89. \\
4244 &= 1 \times 23 + 4 + 5 + 6 \times 78 \times 9. \\
4245 &= 1^2 \times 3456 + 789. \\
4246 &= 1^2 + 3456 + 789. \\
4247 &= 1 \times 2 + 3456 + 789. \\
4248 &= 1 + 2 + 3456 + 789. \\
4249 &= 1 \times 2^3 \times 4 + 5 + 6 \times 78 \times 9. \\
4250 &= 1 + 2^3 \times 4 + 5 + 6 \times 78 \times 9. \\
4251 &= 1^2 \times 34 + 5 + 6 \times 78 \times 9. \\
4252 &= 1^2 + 34 + 5 + 6 \times 78 \times 9. \\
4253 &= 1 \times 2 + 34 + 5 + 6 \times 78 \times 9. \\
4254 &= 12 \times 345 + 6 \times 7 + 8 \times 9. \\
4255 &= 1 \times 23 + 4 \times 5 + 6 \times 78 \times 9. \\
4256 &= 1 + 23 + 4 \times 5 + 6 \times 78 \times 9. \\
4257 &= 12 + 3456 + 789. \\
4258 &= 1^{23} + 45 + 6 \times 78 \times 9. \\
4259 &= 12 + (3 + 4) \times 5 + 6 \times 78 \times 9. \\
4260 &= 1^2 \times 3 + 45 + 6 \times 78 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4191 &= 9 \times 87 + 6 + 54 \times 3 \times 21. \\
4192 &= (98 + 7 + 6 + 5 \times 4) \times 32 \times 1. \\
4193 &= (98 + 7 + 6 + 5 \times 4) \times 32 + 1. \\
4194 &= 98 \times 7 \times 6 + 54 + 3 + 21. \\
4195 &= 9 \times (87 + 6) \times 5 + 4 + 3 + 2 + 1. \\
4196 &= 9 \times (87 + 6) \times 5 + 4 + 3 \times 2 + 1. \\
4197 &= 98 \times 7 \times 6 + 5 \times 4 \times 3 + 21. \\
4198 &= 9 + 8 + (7 + 6) \times 5 \times 4^3 + 21. \\
4199 &= 98 \times 7 \times 6 + 5 \times 4 + 3 \times 21. \\
4200 &= 9 \times 8 + 76 \times 54 + 3 + 21. \\
4201 &= 9 \times (8 + 7 \times 6) + 5^4 \times 3 \times 2 + 1. \\
4202 &= 98 \times 7 \times 6 + 54 + 32 \times 1. \\
4203 &= 98 \times 7 \times 6 + 54 + 32 + 1. \\
4204 &= 9 \times (8 + 7 \times 65) + 4 + 32 + 1. \\
4205 &= 9 + 8 + 7 + 65 \times 4^3 + 21. \\
4206 &= 98 \times 7 \times 6 + 5 + 4^3 + 21. \\
4207 &= 98 \times 7 \times 6 + 5 + 43 \times 2 \times 1. \\
4208 &= 98 + 76 \times 54 + 3 + 2 + 1. \\
4209 &= 98 + 76 \times 54 + 3 \times 2 + 1. \\
4210 &= 9 \times (87 + 6) \times 5 + 4 \times 3 \times 2 + 1. \\
4211 &= 98 + 76 \times 54 + 3^2 \times 1. \\
4212 &= 98 + 76 \times 54 + 3^2 + 1. \\
4213 &= 9 \times (8 + 76) \times 5 + 432 + 1. \\
4214 &= (987 + 65) \times 4 + 3 + 2 + 1. \\
4215 &= (987 + 65) \times 4 + 3 \times 2 + 1. \\
4216 &= (9 + 8 + 76 + 5) \times 43 + 2 \times 1. \\
4217 &= (987 + 65) \times 4 + 3^2 \times 1. \\
4218 &= (987 + 65) \times 4 + 3^2 + 1. \\
4219 &= (9 \times 8 + 7) \times 6 \times 5 + 43^2 \times 1. \\
4220 &= (9 \times 8 + 7) \times 6 \times 5 + 43^2 + 1. \\
4221 &= 9 \times (87 + 6) \times 5 + 4 + 32 \times 1. \\
4222 &= 9 \times (87 + 6) \times 5 + 4 + 32 + 1. \\
4223 &= 9 + 87 + 6 \times 5 + 4^{(3 \times 2)} + 1. \\
4224 &= 9 + 87 + 6 \times (5^4 + 3 \times 21). \\
4225 &= 9 + 8 \times 7 + 65 \times (43 + 21). \\
4226 &= 98 + 76 \times 54 + 3 + 21. \\
4227 &= 9 + 8 \times 7 + 65 \times 4^3 + 2 \times 1. \\
4228 &= 9 + 8 \times 7 + 65 \times 4^3 + 2 + 1. \\
4229 &= 9 + 8 + (7 + 6) \times 54 \times 3 \times 2 \times 1. \\
4230 &= 9 + (8 + 7) \times 65 \times 4 + 321. \\
4231 &= 9 \times (8 + 7 \times 65) + 43 + 21. \\
4232 &= (987 + 65) \times 4 + 3 + 21. \\
4233 &= 98 \times 7 \times 6 + 54 + 3 \times 21. \\
4234 &= 98 + 76 \times 54 + 32 \times 1. \\
4235 &= 98 + 76 \times 54 + 32 + 1. \\
4236 &= 98 \times 7 \times 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
4237 &= 98 \times 7 \times 6 + 5 \times 4 \times 3 \times 2 + 1. \\
4238 &= 9 + 8 + (7 + 6 + 54) \times 3 \times 21. \\
4239 &= 9 \times 8 + 76 \times 54 + 3 \times 21. \\
4240 &= (987 + 65) \times 4 + 32 \times 1. \\
4241 &= (987 + 65) \times 4 + 32 + 1. \\
4242 &= 9 \times 8 + 7 + 65 \times 4^3 + 2 + 1. \\
4243 &= 987 + 6 + (54 + 3)^2 + 1. \\
4244 &= 9 \times (87 + 6 \times 5) \times 4 + 32 \times 1. \\
4245 &= 9 \times (87 + 6 \times 5) \times 4 + 32 + 1. \\
4246 &= 9 + 8 \times 7 + 65 \times 4^3 + 21. \\
4247 &= 987 + 6 \times 543 + 2 \times 1. \\
4248 &= 987 + 6 \times 543 + 2 + 1. \\
4249 &= 98 \times 7 \times 6 + 5 + 4 \times 32 \times 1. \\
4250 &= 98 \times 7 \times 6 + 5 + 4^3 \times 2 + 1. \\
4251 &= (9 \times 87 + 6 + 5^4 + 3) \times (2 + 1). \\
4252 &= 9 \times (87 + 6) \times 5 + 4 + 3 \times 21. \\
4253 &= (9 + 8 \times 7) \times 65 + 4 + 3 + 21. \\
4254 &= 9 \times (8 + 7 \times 65) + 43 \times 2 + 1. \\
4255 &= 98 \times 7 \times 6 + (5 + 4^3) \times 2 + 1. \\
4256 &= 9 + 87 + 65 \times (43 + 21). \\
4257 &= 987 + 6 \times (543 + 2) \times 1. \\
4258 &= 9 + 87 + 65 \times 4^3 + 2 \times 1. \\
4259 &= 9 + 87 + 65 \times 4^3 + 2 + 1. \\
4260 &= 9 \times 8 + 7 + 65 \times 4^3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4261 &= 1^2 + 3 + 45 + 6 \times 78 \times 9. \\
4262 &= 1 \times 2 + 3 + 45 + 6 \times 78 \times 9. \\
4263 &= 1234 + 5 + 6 \times 7 \times 8 \times 9. \\
4264 &= 1 + 2 \times 3 + 45 + 6 \times 78 \times 9. \\
4265 &= 1 \times 2^3 + 45 + 6 \times 78 \times 9. \\
4266 &= 1 + 2^3 + 45 + 6 \times 78 \times 9. \\
4267 &= 1 + 2 \times 3 \times (4 + 5) + 6 \times 78 \times 9. \\
4268 &= 12 \times 3 + 4 \times 5 + 6 \times 78 \times 9. \\
4269 &= 123 \times (4 + 5 \times 6) + 78 \times 9. \\
4270 &= 1^2 + 3 + (4 + 5) \times 6 \times (7 + 8 \times 9). \\
4271 &= 12 \times 345 + 6 \times 7 + 89. \\
4272 &= 12 + 3 + 45 + 6 \times 78 \times 9. \\
4273 &= 1^2 + 3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4274 &= 1 \times 2 + 3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4275 &= 1 + 2 + 3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4276 &= 1 + 2 \times 345 \times 6 + (7 + 8) \times 9. \\
4277 &= 12 \times (345 + 6) + 7 \times 8 + 9. \\
4278 &= 123 \times (4 + 5 \times 6) + 7 + 89. \\
4279 &= 12 \times 345 + 67 + 8 \times 9. \\
4280 &= 1 \times 23 + 45 + 6 \times 78 \times 9. \\
4281 &= 1 + 23 + 45 + 6 \times 78 \times 9. \\
4282 &= 1 \times 2 \times (3 + 4) \times 5 + 6 \times 78 \times 9. \\
4283 &= 1 + 2 \times (3 + 4) \times 5 + 6 \times 78 \times 9. \\
4284 &= 12 + 3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4285 &= 1 \times 2 \times 34 + 5 + 6 \times 78 \times 9. \\
4286 &= 1 + 2 \times 34 + 5 + 6 \times 78 \times 9. \\
4287 &= 1 + 2 + 34 \times (5 \times 6 + 7 + 89). \\
4288 &= 1 + 2^{(3 \times 4)} + 56 + (7 + 8) \times 9. \\
4289 &= (1 \times 2 + 3) \times 4 \times 5 \times 6 \times 7 + 89. \\
4290 &= 1 + (2 + 3) \times 4 \times 5 \times 6 \times 7 + 89. \\
4291 &= 1 + 2 \times (34 + 5) + 6 \times 78 \times 9. \\
4292 &= (1^2 + 3) \times 4 \times 5 + 6 \times 78 \times 9. \\
4293 &= 12 \times 3 + 45 + 6 \times 78 \times 9. \\
4294 &= 1 + (2 \times 3 + 45) \times (6 + 78) + 9. \\
4295 &= 1 \times (2 + 3) \times (4 + (5 + 6 \times (7 + 8))) \times 9. \\
4296 &= 12 \times 345 + 67 + 89. \\
4297 &= 1 \times 2^3 \times 4 \times (56 + 78) + 9. \\
4298 &= 1^2 \times 3^4 + 5 + 6 \times 78 \times 9. \\
4299 &= 1^2 + 3^4 + 5 + 6 \times 78 \times 9. \\
4300 &= 1 \times 2 + 3^4 + 5 + 6 \times 78 \times 9. \\
4301 &= 1 + 2 + 3^4 + 5 + 6 \times 78 \times 9. \\
4302 &= 1 + 234 \times (5 + 6 + 7) + 89. \\
4303 &= 1234 + (5 + 6 \times 7 \times 8) \times 9. \\
4304 &= (1^2 + 3)^4 \times 5 + 6 \times 7 \times 8 \times 9. \\
4305 &= 1 + 2^3 \times (4 + 5 \times 6 + 7 \times 8 \times 9). \\
4306 &= (1^2 + 3)^4 + 5 \times 6 \times (7 + 8) \times 9. \\
4307 &= (1 + 2^3 \times (4 + 5)) \times (6 \times 7 + 8 + 9). \\
4308 &= 123 + 45 \times (6 + 78 + 9). \\
4309 &= 1 \times (23 \times 4 + 5) + 6 \times 78 \times 9. \\
4310 &= 12 + 3^4 + 5 + 6 \times 78 \times 9. \\
4311 &= (1 + 2)^3 + 4 \times (56 + 7) \times (8 + 9). \\
4312 &= 1 \times 2 \times 34 \times 56 + 7 \times 8 \times 9. \\
4313 &= 1 + (2 + 3) \times 4 \times 5 + 6 \times 78 \times 9. \\
4314 &= (123 + 4) \times 5 \times 6 + 7 \times 8 \times 9. \\
4315 &= 1 + 2 \times (3 \times 456 + 789). \\
4316 &= (1^2 + 3) \times (456 + 7 \times 89). \\
4317 &= 1 + 23 + (4 + 5) \times (6 \times 78 + 9). \\
4318 &= (1 \times 2 \times (3 \times 4 \times 5 + 67)) \times (8 + 9). \\
4319 &= (1 + 2) \times 34 + 5 + 6 \times 78 \times 9. \\
4320 &= 12 \times (3 + 4 + 5) \times (6 + 7 + 8 + 9). \\
4321 &= 1 + 2 \times (34 + 56) \times (7 + 8 + 9). \\
4322 &= 1 \times 2 + 3 \times (4 + 5 + 6) \times (7 + 89). \\
4323 &= 1 + 2^{(3 \times 4)} + 5 + (6 + 7) \times (8 + 9). \\
4324 &= 1 + 2^{(3 \times 4)} + 5 \times 6 \times 7 + 8 + 9. \\
4325 &= (1 + 2)^3 \times 4 + 5 + 6 \times 78 \times 9. \\
4326 &= 1 + (2 \times 3)^4 + 5 + 6 \times 7 \times 8 \times 9. \\
4327 &= 12 \times 3 \times 4 + (5 + 6 \times 7) \times 89. \\
4328 &= 1 + 2 - 34 + 56 \times 78 - 9. \\
4329 &= 1^2 \times (3 + 45) \times 6 \times (7 + 8) + 9. \\
4330 &= 1 + (2 + 3 + 4) \times (56 \times 7 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4261 &= 9 \times 8 \times 7 + 6 + 5^4 \times 3 \times 2 + 1. \\
4262 &= (9 + 8 \times 7) \times 65 + 4 + 32 + 1. \\
4263 &= 9 \times 8 \times 7 + 6 \times 5^4 + 3^2 \times 1. \\
4264 &= 9 \times 8 \times 7 + 6 \times 5^4 + 3^2 + 1. \\
4265 &= 98 + 76 \times 54 + 3 \times 21. \\
4266 &= 987 + 6 \times 543 + 21. \\
4267 &= 98 + 7 + 65 \times 4^3 + 2 \times 1. \\
4268 &= 98 + 7 + 65 \times 4^3 + 2 + 1. \\
4269 &= 9 \times (8 \times (7 + 6) + 54) \times 3 + 2 + 1. \\
4270 &= (9 \times 87 + 6) \times 5 + 4 + 321. \\
4271 &= 9 \times (87 + 6) \times 5 + 43 \times 2 \times 1. \\
4272 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 \times (3 + 2) \times 1. \\
4273 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 \times (3 + 2) + 1. \\
4274 &= 9 \times 8 \times 7 + 6 \times (5^4 + 3) + 2 \times 1. \\
4275 &= 9 \times (8 + 76 \times 5 + 43 \times 2 + 1). \\
4276 &= 98 + 76 + 5 + 4^{(3 \times 2)} + 1. \\
4277 &= 9 + 87 + 65 \times 4^3 + 21. \\
4278 &= 9 \times 8 \times 7 + 6 \times 5^4 + 3 + 21. \\
4279 &= 98 + (7 + 6) \times 5 \times 4^3 + 21. \\
4280 &= 98 \times 7 \times 6 + 54 \times 3 + 2 \times 1. \\
4281 &= 9 + 87 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
4282 &= 9 + 87 \times 6 + 5^4 \times 3 \times 2 + 1. \\
4283 &= -9 + 8 - 7 \times 6 + 5 + 4321. \\
4284 &= (9 + 87 + 65 + 43) \times 21. \\
4285 &= 9 \times 8 + (7 + 6) \times 54 \times 3 \times 2 + 1. \\
4286 &= 98 + 7 + 65 \times 4^3 + 21. \\
4287 &= 9 + 876 + 54 \times 3 \times 21. \\
4288 &= (9 + 8 \times 7 + 65 + 4) \times 32 \times 1. \\
4289 &= (9 + 8 \times 7) \times 65 + 43 + 21. \\
4290 &= (9 + 87 + 6 \times 5 + 4) \times (32 + 1). \\
4291 &= ((9 + 8 \times 7) \times 65 + 4^3 + 2) \times 1. \\
4292 &= (9 + 8 \times 7) \times 65 + 4 + 3 \times 21. \\
4293 &= 9 \times (87 + 65 + 4 + 321). \\
4294 &= ((9 + 87 \times 6 + 5) \times 4 + 3) \times 2 \times 1. \\
4295 &= 9 \times (8 + 7 \times 65) + 4 \times 32 \times 1. \\
4296 &= 98 \times 7 \times 6 + 5 \times (4 + 32) \times 1. \\
4297 &= 98 \times 7 \times 6 + 5 \times 4 \times 3^2 + 1. \\
4298 &= 98 + 7 \times 6 \times 5 \times 4 \times (3 + 2) \times 1. \\
4299 &= 98 \times 7 \times 6 + 54 \times 3 + 21. \\
4300 &= (9 + 8) \times 7 + 65 \times 4^3 + 21. \\
4301 &= 98 \times 7 \times 6 + 5 \times (4 + 32 + 1). \\
4302 &= 9 \times (8 + 7) \times 6 \times 5 + 4 \times 3 \times 21. \\
4303 &= 9 + (8 \times 76 + 5) \times (4 + 3) + 2 + 1. \\
4304 &= (9 + 8) \times (7 \times 6 \times 5 + 43) + 2 + 1. \\
4305 &= (9 \times 8 + 76 + 54 + 3) \times 21. \\
4306 &= -9 + 876 \times 5 - 4^3 - 2 + 1. \\
4307 &= 9 + 8 + (76 + 54) \times (32 + 1). \\
4308 &= 9 \times (8 \times 7 + 6) + 5^4 \times 3 \times 2 \times 1. \\
4309 &= (9 + 8 + 76 + 5^4) \times 3 \times 2 + 1. \\
4310 &= 98 + (7 + 6) \times 54 \times 3 \times 2 \times 1. \\
4311 &= 98 + (7 + 6) \times 54 \times 3 \times 2 + 1. \\
4312 &= (9 + 8 \times 7) \times 65 + 43 \times 2 + 1. \\
4313 &= 9 \times 8 \times 7 \times 6 + 5 + 4 \times 321. \\
4314 &= (9 + 8 \times 7 + 654) \times 3 \times 2 \times 1. \\
4315 &= 98 \times (7 + 6 \times 5 + 4 + 3) + 2 + 1. \\
4316 &= 9 \times (8 + 7) + 65 \times 4^3 + 21. \\
4317 &= 9 \times 8 \times 7 + 6 \times 5^4 + 3 \times 21. \\
4318 &= 9 + (8 \times 7 + 6 + 5) \times 4^3 + 21. \\
4319 &= 98 + (7 + 6 + 54) \times 3 \times 21. \\
4320 &= 9 \times 8 \times 7 \times 6 + 54 \times (3 + 21). \\
4321 &= (98 \times 7 + 6 \times 5 + 4) \times 3 \times 2 + 1. \\
4322 &= (9 + 8) \times (7 \times 6 \times 5 + 43) + 21. \\
4323 &= (9 + 8 + 7) \times (6 + 54) \times 3 + 2 + 1. \\
4324 &= 9 + 8 \times 7 \times (65 + 4 \times 3) + 2 + 1. \\
4325 &= ((9 + 8) \times (7 + 6 \times 5 \times 4) + 3) \times 2 + 1. \\
4326 &= (9 + 87) \times 6 + 5^4 \times 3 \times 2 \times 1. \\
4327 &= (9 + 87) \times 6 + 5^4 \times 3 \times 2 + 1. \\
4328 &= 9 + (8 \times 76 + 5 + 4) \times (3 \times 2 + 1). \\
4329 &= 9 + (8 + 7 + 6 \times 5 \times 4) \times 32 \times 1. \\
4330 &= 9 + 8 \times (7 + 65 \times 4 + 3) \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4331 &= (1 + (2 + 3) \times 4 \times 5) \times 6 \times 7 + 89. \\
4332 &= 1 \times 2 \times (3 + 4^5 + 67 \times (8 + 9)). \\
4333 &= 1 + 2 \times 3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4334 &= 123 + 4 - 5 + 6 \times 78 \times 9. \\
4335 &= (12 + 34 + 5) \times ((6 + 7) + 8 \times 9). \\
4336 &= 1 + (2 \times 3 + 45) \times ((6 + 7) + 8 \times 9). \\
4337 &= (1 + 2 \times 3 \times 4) \times 5 + 6 \times 78 \times 9. \\
4338 &= (1 \times 2 + 3^4 \times 5 + 67 + 8) \times 9. \\
4339 &= 1 + (2 + 3 + 4) \times (5 + 6 \times 78 + 9). \\
4340 &= 12^3 + 4 \times (5 \times 6 + 7 \times 89). \\
4341 &= (1 + 2) \times (3 \times 456 + 7 + 8 \times 9). \\
4342 &= 1 + 23 \times 4 \times (5 + 6 \times 7) + 8 + 9. \\
4343 &= 1 \times 2 \times (3 + 4 \times (5 + 67 \times 8)) + 9. \\
4344 &= 123 + (4 + 5) \times 6 \times 78 + 9. \\
4345 &= 1 + 2^{(3+4)} \times 5 \times 6 + 7 \times 8 \times 9. \\
4346 &= 1 + (2^{(3+4)} + 5) \times 6 \times 78 \times 9. \\
4347 &= 1^2 \times 3 \times 45 + 6 \times 78 \times 9. \\
4348 &= 1^2 + 3 \times 45 + 6 \times 78 \times 9. \\
4349 &= 1 \times 2 + 3 \times 45 + 6 \times 78 \times 9. \\
4350 &= (1 + 23 + 4 \times 5 + 6) \times (78 + 9). \\
4351 &= (1 + 2 \times 3)^4 + 5 \times 6 \times (7 \times 8 + 9). \\
4352 &= 1 \times 2^3 \times 4 \times (5 + 6 \times 7 + 89). \\
4353 &= 1 + 2 \times (3 + 4 \times (5 + 67 \times 8) + 9). \\
4354 &= 1 \times 2 - 3 - 4 + 56 \times 78 - 9. \\
4355 &= 123 + 4 \times 5 + 6 \times 78 \times 9. \\
4356 &= (1 + 2 \times 3 + 4 + 5 + 6 \times 78) \times 9. \\
4357 &= 1 + (2 + 34) \times (56 + 7 \times 8 + 9). \\
4358 &= 1 \times 2 + (34 + 5 \times 6 \times (7 + 8)) \times 9. \\
4359 &= 12 + 3 \times 45 + 6 \times 78 \times 9. \\
4360 &= (12 \times 3 + 4) \times (5 \times 6 + 7 + 8 \times 9). \\
4361 &= 12 \times 3 \times 4 + 5 + 6 \times 78 \times 9. \\
4362 &= 123 + (456 + 7 + 8) \times 9. \\
4363 &= (1 + 2 \times 3)^4 + (5 \times 6 \times 7 + 8) \times 9. \\
4364 &= (1 + 2 \times 34) \times (56 + 7) + 8 + 9. \\
4365 &= (1 + 2) \times (3 \times 456 + 78 + 9). \\
4366 &= (1 + (2 \times 34 + 5)) \times (6 \times 7 + 8 + 9). \\
4367 &= ((1 + 2)^3 + 4) \times 5 + 6 \times 78 \times 9. \\
4368 &= 1 \times 2 \times 3 \times (4 \times 56 + 7 \times 8 \times 9). \\
4369 &= 1 + (2 + 3)^4 + 5 + 6 \times 7 \times 89. \\
4370 &= (12 + 34) \times (5 \times 6 + 7 \times 8 + 9). \\
4371 &= 12 \times 3^4 + 5 \times 678 + 9. \\
4372 &= 1 \times 2^3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4373 &= 1 + 2^3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4374 &= (1 + 2^{(3+4)}) \times 5 \times 6 + 7 \times 8 \times 9. \\
4375 &= 1^2 \times (3 + 4) \times 5 \times (6 + 7 \times (8 + 9)). \\
4376 &= 1 \times 2 + 3^4 \times (5 \times 6 + 7 + 8 + 9). \\
4377 &= 1^{234} \times 56 \times 78 + 9. \\
4378 &= 1^{234} + 56 \times 78 + 9. \\
4379 &= 1234 + 56 \times 7 \times 8 + 9. \\
4380 &= 123 + 45 + 6 \times 78 \times 9. \\
4381 &= 1^{23} \times 4 + 56 \times 78 + 9. \\
4382 &= 1^{23} + 4 + 56 \times 78 + 9. \\
4383 &= 1^2 + 34 \times 5 + 6 \times 78 \times 9. \\
4384 &= 1^2 \times 3 + 4 + 56 \times 78 + 9. \\
4385 &= 12 \times 3 \times 4 \times 5 \times 6 + 7 \times 8 + 9. \\
4386 &= 1 \times (23 + 4 \times 5) \times ((6 + 7) + 89). \\
4387 &= 1 + 2 + 3 + 4 + 56 \times 78 + 9. \\
4388 &= (12 + 3^4) \times (5 + 6 \times 7) + 8 + 9. \\
4389 &= 1^2 \times (3 \times 4 + 56 \times 78 + 9). \\
4390 &= 1^2 + 3 \times 4 + 56 \times 78 + 9. \\
4391 &= 1 \times 2 + 3 \times 4 + 56 \times 78 + 9. \\
4392 &= 1 + 2^{(3 \times 4)} + 5 \times (6 \times 7 + 8 + 9). \\
4393 &= 1 + (2 + 34) \times 5 + 6 \times 78 \times 9. \\
4394 &= 12 + 34 \times 5 + 6 \times 78 \times 9. \\
4395 &= 1 \times 2^{(3 \times 4)} + 5 \times 6 \times 7 + 89. \\
4396 &= 12 + 3 + 4 + 56 \times 78 + 9. \\
4397 &= (1 + 2 + 34) \times 5 + 6 \times 78 \times 9. \\
4398 &= 1 + (2 + 3) \times 4 + 56 \times 78 + 9. \\
4399 &= 12 \times 3 \times 4 \times 5 \times 6 + 7 + 8 \times 9. \\
4400 &= (1^2 + 3 + 4) \times (5 + 67 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4331 &= 9 + (8 + 7) \times 6 \times (5 + 43) + 2 \times 1. \\
4332 &= (9 \times 87 + 654) \times 3 + 21. \\
4333 &= 98 \times 7 \times 6 + 5 \times 43 + 2 \times 1. \\
4334 &= 98 \times 7 \times 6 + 5 \times 43 + 2 + 1. \\
4335 &= (98 + 765 + 4) \times (3 + 2) \times 1. \\
4336 &= (98 + 765 + 4) \times (3 + 2) + 1. \\
4337 &= 9 + 8 \times (7 \times 65 + 43 \times 2 \times 1). \\
4338 &= 9 \times 8 \times (7 + 6) + 54 \times 3 \times 21. \\
4339 &= 98 \times (7 + 6 \times 5 + 4) + 321. \\
4340 &= 98 + 7 \times 6 \times (5 + 4 \times (3 + 21)). \\
4341 &= 98 \times 7 \times 6 + 5 \times (43 + 2) \times 1. \\
4342 &= 98 \times 7 \times 6 + 5 \times (43 + 2) + 1. \\
4343 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 \times 32 - 1. \\
4344 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 \times 32 \times 1. \\
4345 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 \times 32 + 1. \\
4346 &= 98 \times 7 \times 6 + 5 \times (43 + 2 + 1). \\
4347 &= (9 \times (8 + 7) + 65 + 4 + 3) \times 21. \\
4348 &= ((9 \times 8 + 7) \times 6 + 5 + 4) \times 3^2 + 1. \\
4349 &= 9 \times (8 + 7 + 6) \times (5 \times 4 + 3) + 2 \times 1. \\
4350 &= 9 \times 8 \times 7 + 6 \times (5 \times 4 \times 32 + 1). \\
4351 &= 9 + 8 + 76 \times (54 + 3) + 2 \times 1. \\
4352 &= 98 \times 7 \times 6 + 5 \times 43 + 21. \\
4353 &= 9 \times (8 \times 7 \times 6 + 5) + 4 \times 321. \\
4354 &= 98 + 76 \times (5 \times (4 + 3) + 21). \\
4355 &= 9 + 8 \times 7 + 65 \times (4^3 + 2) \times 1. \\
4356 &= 9 + 8 + 7 + 6 + 5 + 4321. \\
4357 &= (9 + 8 + 7 + 6 \times 5 + 4 \times 3)^2 + 1. \\
4358 &= 9 \times 87 + (6 + 5) \times (4 + 321). \\
4359 &= 9 + 87 \times (6 + 5 \times 4 + 3 + 21). \\
4360 &= (9 \times 8 + 7 + 6 \times 5) \times 4 \times (3^2 + 1). \\
4361 &= 98 \times 7 \times 6 + 5 \times (4 + 3)^2 \times 1. \\
4362 &= 98 \times 7 \times 6 + 5 \times (4 + 3)^2 + 1. \\
4363 &= (98 \times 7 + 6) \times 5 + 43 \times 21. \\
4364 &= 987 + (6 + 5 + 4)^3 + 2 \times 1. \\
4365 &= 987 + (6 + 5 + 4)^3 + 2 + 1. \\
4366 &= 9 + (8 \times 7 + 65) \times 4 \times 3^2 + 1. \\
4367 &= 9 + 8 \times 76 + 5^4 \times 3 \times 2 \times 1. \\
4368 &= 9 + 8 \times 76 + 5^4 \times 3 \times 2 + 1. \\
4369 &= (9 + 8 \times 76) \times 5 + 4 \times 321. \\
4370 &= 9 + 8 + 76 \times (54 + 3) + 21. \\
4371 &= 987 + 6 \times (543 + 21). \\
4372 &= (9 + 8 \times 7) \times 65 + (4 + 3) \times 21. \\
4373 &= 98 \times 7 \times 6 + 5 + 4 \times 3 \times 21. \\
4374 &= 9 \times 8 \times 7 + 6 \times 5 \times 43 \times (2 + 1). \\
4375 &= 9 + 8 + 7 + 6 \times 5 + 4321. \\
4376 &= 9 \times 87 \times 6 - 5 + 4 - 321. \\
4377 &= (9 \times 87 + 6) \times 5 + 432 \times 1. \\
4378 &= (9 \times 87 + 6) \times 5 + 432 + 1. \\
4379 &= 9 + 8 + 7 + 65 \times (4 + 3 \times 21). \\
4380 &= 9 \times (8 \times 7 + 65) \times 4 + 3 + 21. \\
4381 &= (98 + 7) \times 6 + 5^4 \times 3 \times 2 + 1. \\
4382 &= (9 + 8 \times 76 + 5 + 4) \times (3 \times 2 + 1). \\
4383 &= 9 \times (8 + 7 \times 6 + 5 + 432 \times 1). \\
4384 &= 9 + (8 \times (7 + 6) + 5^4) \times 3 \times 2 + 1. \\
4385 &= 9 + 8 + 7 \times 6 + 5 + 4321. \\
4386 &= 98 \times 7 \times 6 + 54 \times (3 + 2 \times 1). \\
4387 &= 98 \times 7 \times 6 + 54 \times (3 + 2) + 1. \\
4388 &= 98 + (76 + 54) \times (32 + 1). \\
4389 &= (987 + 6 \times 5) \times 4 + 321. \\
4390 &= (9 + 8) \times (7 \times 6 + 5 \times 43) + 21. \\
4391 &= (9 + 8 + 7 \times 6) \times 5 + 4^{(3+2+1)}. \\
4392 &= (98 + 76 + 5 + 4) \times (3 + 21). \\
4393 &= 9 + 8 \times 76 \times 5 + 4^3 \times 21. \\
4394 &= 9 \times 8 \times (7 + 6 + 5 + 43) + 2 \times 1. \\
4395 &= 987 + 6 + 54 \times 3 \times 21. \\
4396 &= 98 + 7 + 65 \times (4^3 + 2) + 1. \\
4397 &= 9 + 8 \times 7 + 6 + 5 + 4321. \\
4398 &= 9 + 876 \times 5 + 4 + 3 + 2 \times 1. \\
4399 &= 9 + 876 \times 5 + 4 + 3 + 2 + 1. \\
4400 &= 9 + 876 \times 5 + 4 + 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4401 &= 1 \times 2 \times 3 \times 4 + 56 \times 78 + 9. \\
4402 &= 1 \times (2 + 3 \times 4 \times 5) \times (6 + 7 \times 8 + 9). \\
4403 &= (1^2 \times 3 + 4 + 5 \times 6) \times 7 \times (8 + 9). \\
4404 &= 1 \times (23 + 4) + 56 \times 78 + 9. \\
4405 &= 1 \times 2 + (3 + 4 + 5 \times 6) \times 7 \times (8 + 9). \\
4406 &= 1 + (2 + 3)^4 + 5 \times (6 + 78) \times 9. \\
4407 &= 12 \times 3 \times 4 \times 5 \times 6 + 78 + 9. \\
4408 &= (1 + 2)^3 + 4 + 56 \times 78 + 9. \\
4409 &= 1 \times 2^3 \times 4 + 56 \times 78 + 9. \\
4410 &= 1 + 2^3 \times 4 + 56 \times 78 + 9. \\
4411 &= 1^2 \times 34 + 56 \times 78 + 9. \\
4412 &= 1^2 + 34 + 56 \times 78 + 9. \\
4413 &= 1 \times 2 + 34 + 56 \times 78 + 9. \\
4414 &= 1 + 2 + 34 + 56 \times 78 + 9. \\
4415 &= 1 \times 2^{(3 \times 4)} + 5 \times (6 + 7 \times 8) + 9. \\
4416 &= 12 \times 3 \times 4 \times 5 \times 6 + 7 \times 89. \\
4417 &= 12 \times 3 + 4 + 56 \times 78 + 9. \\
4418 &= 1 + 234 + (5 + 6 \times 7) \times 89. \\
4419 &= (1 + (2 + 3^4)) \times 5 + 67 + 8) \times 9. \\
4420 &= 1^{23} \times 4 \times 5 \times (6 + 7) \times (8 + 9). \\
4421 &= 1 + (2 + 3 \times 4 \times 5 \times 6) \times (7 \times 8 + 9). \\
4422 &= 1 \times 2 + (3 \times 4 + 56) \times (7 \times 8 + 9). \\
4423 &= 1 + 2 + 34 \times (5 + 6 + 7 \times (8 + 9)). \\
4424 &= ((1 + 2 + 3 + 4) \times 5 + 6) \times (7 + 8 \times 9). \\
4425 &= 1^{234} + 56 \times (7 + 8 \times 9). \\
4426 &= 1 \times 2 \times 3 + 4 \times 5 \times (6 + 7) \times (8 + 9). \\
4427 &= (1 + 2) \times (3 + 4) \times 5 \times 6 \times 7 + 8 + 9. \\
4428 &= (12 + 3 + 4 + 5 + 6 \times 78) \times 9. \\
4429 &= 1^{23} + 4 + 56 \times (7 + 8 \times 9). \\
4430 &= -1 + 2 \times 34 \times 56 + 7 \times 89. \\
4431 &= (1 \times 2 \times 34) \times 56 + 7 \times 89. \\
4432 &= 1^2 + 3 + 4 + 56 \times (7 + 8 \times 9). \\
4433 &= 1 \times (2 + 3 + 4) + 56 \times (7 + 8 \times 9). \\
4434 &= 1 + (2 \times 34 + 5 + 6) \times 7 \times 8 + 9. \\
4435 &= 12 + 3 + 4 \times (5 \times (6 + 7) \times (8 + 9)). \\
4436 &= 1^2 \times (3 \times 4 + 56 \times (7 + 8 \times 9)). \\
4437 &= 1 \times 2 \times 34 \times 5 \times (6 + 7) + 8 + 9. \\
4438 &= 1 + 2 \times 34 \times 5 \times (6 + 7) + 8 + 9. \\
4439 &= 1 + 2 + 3 \times 4 + 56 \times (7 + 8 \times 9). \\
4440 &= (1^2 + 3) \times 4 + 56 \times (7 + 8 \times 9). \\
4441 &= (1^2 + 3) \times 4^5 + 6 \times 7 \times 8 + 9. \\
4442 &= (1^2 + 3 \times 4) \times (5 + 6 \times 7 \times 8) + 9. \\
4443 &= 1 + 2 + 3 + (45 + 6) \times (78 + 9). \\
4444 &= 1 + 23 + 4 \times 5 \times (6 + 7) \times (8 + 9). \\
4445 &= 1 \times 2 \times 34 + 56 \times 78 + 9. \\
4446 &= 1 + 2 \times 34 + 56 \times 78 + 9. \\
4447 &= 1^2 + (34 + 5) \times (6 \times 7 + 8 \times 9). \\
4448 &= 12 + 3 \times 4 + 56 \times (7 + 8 \times 9). \\
4449 &= 1 + 2 \times 3 \times 4 + 56 \times (7 + 8 \times 9). \\
4450 &= 12 + (3 + 4) \times (5 + 6 + 7 \times 89). \\
4451 &= 1 \times 234 + 5 + 6 \times 78 \times 9. \\
4452 &= 1 + 234 + 5 + 6 \times 78 \times 9. \\
4453 &= 1 + (2^3 + 45) \times (67 + 8 + 9). \\
4454 &= 1 \times 2 \times (3 \times 4 + 5) \times (6 \times 7 + 89). \\
4455 &= (1 + 23 + 456 + 7 + 8) \times 9. \\
4456 &= 1 + (2 \times 3 + 45 + 6) \times 78 + 9. \\
4457 &= 12^3 + 4 + 5 \times (67 \times 8 + 9). \\
4458 &= 12 \times 3 \times 4 \times 5 + 6 \times 7 \times 89. \\
4459 &= 1^2 + 34 + 56 \times (7 + 8 \times 9). \\
4460 &= 1 \times 2 + 3^4 + 56 \times 78 + 9. \\
4461 &= 1 + 2 + 3^4 + 56 \times 78 + 9. \\
4462 &= 1 + (2^3 + 45) \times (6 + 78) + 9. \\
4463 &= 1 \times 2^{(3+4)} \times 5 \times 6 + 7 \times 89. \\
4464 &= 12 \times 3 + 4 + 56 \times (7 + 8 \times 9). \\
4465 &= 1^2 + 3^4 \times (5 + 6 \times 7 + 8) + 9. \\
4466 &= 1 \times 2 + (3 + 45) \times (6 + 78 + 9). \\
4467 &= 123 \times 4 + 5 \times (6 + 789). \\
4468 &= (1^2 + 3) \times (4^5 + 6 + 78 + 9). \\
4469 &= 1 \times 23 \times 4 + 56 \times 78 + 9. \\
4470 &= 12 + 3^4 + 56 \times 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4401 &= 9 + 8 + 7 + 6 \times (5 + 4)^3 + 2 + 1. \\
4402 &= 9 + 876 \times 5 + 4 + 3^2 \times 1. \\
4403 &= 9 + 876 \times 5 + 4 + 3^2 + 1. \\
4404 &= 9 + 876 \times 5 + 4 \times 3 + 2 + 1. \\
4405 &= 98 \times 7 \times 6 + (5 + 4) \times 32 + 1. \\
4406 &= 9 \times 8 + 76 \times (54 + 3) + 2 \times 1. \\
4407 &= 9 \times 8 + 76 \times (54 + 3) + 2 + 1. \\
4408 &= 9 \times 8 \times (7 \times 6 + 5) + 4(3 + 2) \times 1. \\
4409 &= 9 + 876 \times 5 + 4 \times (3 + 2) \times 1. \\
4410 &= 9 + 8 + 7 + 65 + 4321. \\
4411 &= 9 \times 8 + 7 + 6 + 5 + 4321. \\
4412 &= 9 + 8 \times 7 + (65 + 4) \times 3 \times 21. \\
4413 &= 9 + 876 \times 5 + 4 \times 3 \times 2^1. \\
4414 &= 9 + 876 \times 5 + 4 \times 3 \times 2 + 1. \\
4415 &= 9 + 8 + 7 \times (6 + 5) + 4321. \\
4416 &= 9 + 8 \times 7 + 6 \times 5 + 4321. \\
4417 &= 9 + 876 \times 5 + 4 + 3 + 21. \\
4418 &= (9 + 8) \times 76 + 5^4 \times (3 + 2) + 1. \\
4419 &= 9 + 8 + 76 + 5 + 4321. \\
4420 &= 9 \times 8 + 7 \times (65 + 4) \times 3^2 + 1. \\
4421 &= (9 \times 8 + 7 + 6) \times (5 \times 4 + 32) + 1. \\
4422 &= 9 + 876 \times 5 + 4 \times 3 + 21. \\
4423 &= 98 - 7 + 6 + 5 + 4321. \\
4424 &= (9 \times 8 + 7) \times (6 + 5 + 43 + 2 \times 1). \\
4425 &= 9 + 876 \times 5 + 4 + 32 \times 1. \\
4426 &= 9 + 876 \times 5 + 4 + 32 + 1. \\
4427 &= 9 + 8 + 7 \times 6 \times 5 \times (4 + 3) \times (2 + 1). \\
4428 &= 9 \times 8 \times 7 + 654 \times 3 \times 2 \times 1. \\
4429 &= 9 \times 8 \times 7 + 654 \times 3 \times 2 + 1. \\
4430 &= 9 \times 8 + 7 + 6 \times 5 + 4321. \\
4431 &= (98 + 7) \times (6 \times 5 + 4 \times 3) + 21. \\
4432 &= 98 + 76 \times (54 + 3) + 2 \times 1. \\
4433 &= 98 + 76 \times (54 + 3) + 2 + 1. \\
4434 &= 9 + 876 \times 5 + 43 + 2^1. \\
4435 &= 9 + 876 \times 5 + 43 + 2 + 1. \\
4436 &= 98 \times 7 \times 6 + 5 \times (43 + 21). \\
4437 &= 98 + 7 + 6 + 5 + 4321. \\
4438 &= 98 \times 7 \times 6 + 5 \times 4^3 + 2 \times 1. \\
4439 &= 98 \times 7 \times 6 + 5 \times 4^3 + 2 + 1. \\
4440 &= 98 \times 7 \times 6 + 54 \times 3 \times 2 \times 1. \\
4441 &= 98 \times 7 \times 6 + 54 \times 3 \times 2 + 1. \\
4442 &= 9 + 8 + 76 \times 54 + 321. \\
4443 &= 98 \times 7 + 6 + 5^4 \times 3 \times 2 + 1. \\
4444 &= (9 + 8) \times (7 + 6) \times 5 \times 4 + 3 + 21. \\
4445 &= 98 \times 7 + 6 \times 5^4 + 3^2 \times 1. \\
4446 &= 98 \times 7 \times 6 + 5 + 4 + 321. \\
4447 &= 9 + 87 + 6 \times 5 + 4321. \\
4448 &= (98 + 7 + 6 \times 5 + 4) \times 32 \times 1. \\
4449 &= (9 \times 8 + 7 + 6 + 54) \times 32 + 1. \\
4450 &= (9 + 876) \times 5 + 4 \times 3 \times 2 + 1. \\
4451 &= 98 + 76 \times (54 + 3) + 21. \\
4452 &= 98 + 7 + (65 + 4) \times 3 \times 21. \\
4453 &= 9 + 876 \times 5 + 43 + 21. \\
4454 &= (9 + 8) \times (7 \times (6 \times 5 + 4) + 3 + 21). \\
4455 &= 9 + 876 \times 5 + 4^3 + 2 \times 1. \\
4456 &= 98 + 7 + 6 \times 5 + 4321. \\
4457 &= 98 \times 7 \times 6 + 5 \times 4 + 321. \\
4458 &= 9 \times 8 + (7 + 6) \times 5 + 4321. \\
4459 &= 9 + 8 \times (7 + 6 + 543) + 2 \times 1. \\
4460 &= 98 \times 7 + 6 \times 5^4 + 3 + 21. \\
4461 &= (9 + 876) \times 5 + 4 + 32 \times 1. \\
4462 &= (9 + 876) \times 5 + 4 + 32 + 1. \\
4463 &= 98 \times 7 + 6 \times 5^4 + 3^{(2+1)}. \\
4464 &= (9 + 8) \times 7 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
4465 &= 9 \times 8 + 7 + 65 + 4321. \\
4466 &= 98 + 7 \times 6 + 5 + 4321. \\
4467 &= 9 \times (8 + 7) + 6 + 5 + 4321. \\
4468 &= 98 \times 7 + 6 \times 5^4 + 32 \times 1. \\
4469 &= 98 \times 7 + 6 \times 5^4 + 32 + 1. \\
4470 &= (9 + 8) \times 7 + 6 \times 5 + 4321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4471 &= (1 \times 2 + 3 \times (4 \times 5 + 67)) \times (8 + 9). \\
4472 &= 1 + (2 + 3 \times (4 \times 5 + 67)) \times (8 + 9). \\
4473 &= (1 + 23) \times 4 + 56 \times 78 + 9. \\
4474 &= 1^2 + (3 + 4) \times (567 + 8 \times 9). \\
4475 &= 1 \times 2 + (3 + 4) \times (567 + 8 \times 9). \\
4476 &= 12 + (3 + 45) \times (6 + 78 + 9). \\
4477 &= (1 + 2 + 34) \times (56 + 7 \times 8 + 9). \\
4478 &= 1 \times 23 + 45 \times (6 \times (7 + 8) + 9). \\
4479 &= (1 + 2) \times 34 + 56 \times 78 + 9. \\
4480 &= (1^2 + 3 + 4) \times (56 + 7 \times 8 \times 9). \\
4481 &= (1 \times 23 + 4 \times 5) \times (6 + 7) \times 8 + 9. \\
4482 &= 1 \times 2 \times 3 \times 45 + 6 \times 78 \times 9. \\
4483 &= 1 + 2 \times 3 \times 45 + 6 \times 78 \times 9. \\
4484 &= (12 + 3) \times 4 + 56 \times (7 + 8 \times 9). \\
4485 &= 12 \times 345 + 6 \times 7 \times 8 + 9. \\
4486 &= 1 + 23 \times (4 + 56 + (7 + 8) \times 9). \\
4487 &= 1 + 2^{(3+4+5)} + 6 \times (7 \times 8 + 9). \\
4488 &= 12 \times (3 + 4 \times 5) + 6 \times 78 \times 9. \\
4489 &= (12 + 3 \times 4 + 56) \times 7 \times 8 + 9. \\
4490 &= 1 + (2 \times 3 \times 4 + 56) \times 7 \times 8 + 9. \\
4491 &= 12 \times 3 + 45 \times (6 \times (7 + 8) + 9). \\
4492 &= 1 \times 2 \times 34 + 56 \times (7 + 8 \times 9). \\
4493 &= 12 \times (3 \times 4 \times 5 \times 6 + 7) + 89. \\
4494 &= 1^2 \times 3 \times (4^5 + 6 \times (7 + 8 \times 9)). \\
4495 &= 1^2 + 3 \times (4^5 + 6 \times (7 + 8 \times 9)). \\
4496 &= 12^3 + 4 \times (5 + 678 + 9). \\
4497 &= 1 + 2 + 3 \times (4^5 + 6 \times (7 + 8 \times 9)). \\
4498 &= (1 + 2 + 3^4 + 7 \times (5 \times 6)) \times (8 + 9). \\
4499 &= (1 + 2) \times (3 + 4) \times 5 \times 6 \times 7 + 89. \\
4500 &= 12 \times (345 + 6 + 7 + 8 + 9). \\
4501 &= 1 + (23 + 4 + 5 + 6 \times 78) \times 9. \\
4502 &= (1 + 2 \times 34) \times 5 \times (6 + 7) + 8 + 9. \\
4503 &= 1^2 + 345 \times (6 + 7) + 8 + 9. \\
4504 &= 123 + 4 + 56 \times 78 + 9. \\
4505 &= 1 + 2 + 345 \times (6 + 7) + 8 + 9. \\
4506 &= 1 + 2^{(3+4)} + 56 \times 78 + 9. \\
4507 &= 1 \times 2 + 3^4 + 56 \times (7 + 8 \times 9). \\
4508 &= 12^3 + 4 \times 5 \times (67 + 8 \times 9). \\
4509 &= 1 \times 2 \times 34 \times 5 \times (6 + 7) + 89. \\
4510 &= 1 \times 2 \times 34 \times 56 + 78 \times 9. \\
4511 &= 1 + 2 \times 34 \times 56 + 78 \times 9. \\
4512 &= 12 \times 34 \times (5 + 6) + 7 + 8 + 9. \\
4513 &= 1 + 2^3 \times (4 + 56 + 7 \times 8 \times 9). \\
4514 &= 12 + 345 \times (6 + 7) + 8 + 9. \\
4515 &= (1^2 + 345) \times (6 + 7) + 8 + 9. \\
4516 &= 1 \times 23 \times 4 + 56 \times (7 + 8 \times 9). \\
4517 &= 12 \times (34 + 5 \times 67) + 89. \\
4518 &= ((1 + 2) \times 34 + 56 \times 7 + 8) \times 9. \\
4519 &= (1^2 + 3^4) \times (5 + 6 \times 7 + 8) + 9. \\
4520 &= (1 \times 2^3)^4 + 5 \times 67 + 89. \\
4521 &= 12 \times 3 \times 4 + 56 \times 78 + 9. \\
4522 &= 12^3 + 4 + 5 \times (6 + 7 \times 8) \times 9. \\
4523 &= 1 \times 2 + 3 \times 4 \times (5 + 6 \times 7) \times 8 + 9. \\
4524 &= (1^{23} + 45 + 6) \times (78 + 9). \\
4525 &= 1 + (2 \times 3 \times 4 + 5) \times (67 + 89). \\
4526 &= (1 + 2) \times 34 + 56 \times (7 + 8 \times 9). \\
4527 &= 12^3 + 45 \times (6 + 7 \times 8) + 9. \\
4528 &= 1 \times (2 + 345) \times (6 + 7) + 8 + 9. \\
4529 &= 1 + (2 + 345) \times (6 + 7) + 8 + 9. \\
4530 &= 12 \times 345 + 6 \times (7 \times 8 + 9). \\
4531 &= (1 + (2 + 3)^4 + 5 + 6) \times 7 + 8 \times 9. \\
4532 &= (1 + 2)^3 \times 4 + 56 \times (7 + 8 \times 9). \\
4533 &= (1 + 23 + 4 + 5 \times 6) \times 78 + 9. \\
4534 &= 1 + 2 \times (3 + 4 \times 5 + 6) \times 78 + 9. \\
4535 &= 1 \times (2 \times 34 + 5) \times (6 + 7 \times 8) + 9. \\
4536 &= 12 \times 3 \times (4 + 5) + 6 \times 78 \times 9. \\
4537 &= 1 + (2 + 34) \times (5 \times 6 + 7 + 89). \\
4538 &= 1 + (2 + 3 \times 4 \times (5 + 6 \times 7)) \times 8 + 9. \\
4539 &= 1 \times 2 \times 3^4 + 56 \times 78 + 9. \\
4540 &= 1 + 2 \times 3^4 + 56 \times 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4471 &= (9 + 8 + 7 + 6) \times 5 + 4321. \\
4472 &= 98 \times 7 + (6 + 5^4) \times 3 \times 2 \times 1. \\
4473 &= (98 + 7 + 65 + 43) \times 21. \\
4474 &= 9 \times 8 + 76 + 5 + 4321. \\
4475 &= 9 + 876 \times 5 + 43 \times 2 \times 1. \\
4476 &= 9 + 876 \times 5 + 43 \times 2 + 1. \\
4477 &= 9 + 87 + 6 + 5^4 \times (3 \times 2 + 1). \\
4478 &= 9 + 8 \times (7 + 6 + 543) + 21. \\
4479 &= 98 + 7 + 6 \times ((5 + 4) \times 3)^2 \times 1. \\
4480 &= (9 + 8 + 7 + 6 + 5) \times 4 \times 32 \times 1. \\
4481 &= (9 + 8 + 7 + 6 + 5) \times 4 \times 32 + 1. \\
4482 &= 9 + 87 + 65 + 4321. \\
4483 &= 9 \times (8 + 7) \times 6 \times 5 + 432 + 1. \\
4484 &= 98 + (7 + 6) \times 5 + 4321. \\
4485 &= 9 + 876 \times 5 + 4 \times (3 + 21). \\
4486 &= 9 \times (8 + 7) + 6 \times 5 + 4321. \\
4487 &= -98 + 7 \times 654 + 3 \times 2 + 1. \\
4488 &= (9 \times 8) \times (7 \times 6 + 5 \times 4) + 3 + 21. \\
4489 &= (9 + 876) \times 5 + 43 + 21. \\
4490 &= 9 \times (8 + 7) + 65 \times (4 + 3 \times 21). \\
4491 &= 98 + 7 + 65 + 4321. \\
4492 &= (9 + 876) \times 5 + 4 + 3 \times 21. \\
4493 &= 9 + 8 + 76 \times 5 + 4^{(3+2+1)}. \\
4494 &= 98 \times 7 \times 6 + 54 \times (3 \times 2 + 1). \\
4495 &= 9 + (8 + 7) \times (6 + 5) + 4321. \\
4496 &= 98 + 7 \times (6 + 5) + 4321. \\
4497 &= 9 \times 8 + 76 \times 54 + 321. \\
4498 &= 9 \times 8 + 7 \times (6 + 5^4) + 3^2 \times 1. \\
4499 &= 98 \times 7 + 6 \times 5^4 + 3 \times 21. \\
4500 &= 98 + 76 + 5 + 4321. \\
4501 &= (9 + 87 + 654) \times 3 \times 2 + 1. \\
4502 &= 9 + 8 + 76 \times (54 + 3 + 2) + 1. \\
4503 &= (9 \times 8 + 7) \times (6 + 5 + 43 + 2 + 1). \\
4504 &= 9 + 8 + 7 \times (6 + 5^4 + 3^2 + 1). \\
4505 &= (9 + 8) \times 7 + 65 + 4321. \\
4506 &= 9 + 87 + 6 \times 5 \times (4 + 3) \times 21. \\
4507 &= 9 \times (8 + 76) + 5^4 \times 3 \times 2 + 1. \\
4508 &= 98 \times (7 + 6 + 5 + 4 + 3 + 21). \\
4509 &= 9 + (8 + 7 \times 6) \times (5 + 4^3 + 21). \\
4510 &= 9 \times (87 + 6) \times 5 + 4 + 321. \\
4511 &= (9 + 876) \times 5 + 43 \times 2 \times 1. \\
4512 &= (9 + 876) \times 5 + 43 \times 2 + 1. \\
4513 &= 9 + 8 \times (76 + 54 \times 3^2 + 1). \\
4514 &= 9 + (876 + 5^4) \times 3 + 2 \times 1. \\
4515 &= 9 \times (8 + 7 + 6) + 5 + 4321. \\
4516 &= (9 \times 87 + 6 \times 5 \times 4) \times (3 + 2) + 1. \\
4517 &= 9 + 876 \times 5 + 4^3 \times 2 \times 1. \\
4518 &= 9 + 876 \times 5 + 4 \times 32 + 1. \\
4519 &= (9 + 8 + 7) \times 6 + 5^4 \times (3 \times 2 + 1). \\
4520 &= 98 + 7 \times (6 + 5^4) + 3 + 2 \times 1. \\
4521 &= 9 \times (8 + 7) + 65 + 4321. \\
4522 &= 9 \times 8 + 7 \times (6 + 5^4) + 32 + 1. \\
4523 &= 98 + 76 \times 54 + 321. \\
4524 &= 98 + 7 \times (6 + 5^4) + 3^2 \times 1. \\
4525 &= 98 + 7 \times (6 + 5^4) + 3^2 + 1. \\
4526 &= 98 \times 7 + 6 \times 5 \times 4 \times 32 \times 1. \\
4527 &= 98 \times 7 + 6 \times 5 \times 4^3 \times 2 + 1. \\
4528 &= 9 \times (87 + 6) \times 5 + (4 + 3)^{(2+1)}. \\
4529 &= (987 + 65) \times 4 + 321. \\
4530 &= (98 \times 7 + 65 + 4) \times 3 \times 2 \times 1. \\
4531 &= (98 \times 7 + 65 + 4) \times 3 \times 2 + 1. \\
4532 &= 9 + 8 + 7 \times (6 \times 54 + 321). \\
4533 &= 9 \times (87 + 6 \times 5) \times 4 + 321. \\
4534 &= 9 + 876 \times 5 + (4 \times 3)^2 + 1. \\
4535 &= 9 \times 87 \times 6 - 54 \times 3 - 2 + 1. \\
4536 &= 9 + 876 \times 5 + (4 + 3) \times 21. \\
4537 &= (9 + 87 + 6 \times 5) \times 4 \times 3^2 + 1. \\
4538 &= 9 \times 87 + 6 \times 5^4 + 3 + 2 \times 1. \\
4539 &= 9 \times 87 + 6 \times 5^4 + 3 + 2 + 1. \\
4540 &= 9 \times 87 + 6 + 5^4 \times 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4541 &= 1 + (2 + 3) \times 4 \times (5 \times 6 \times 7 + 8 + 9). \\
4542 &= 123 \times 4 + 5 \times 6 \times (7 + 8) \times 9. \\
4543 &= 123 + 4 \times 5 \times (6 + 7) \times (8 + 9). \\
4544 &= 1 \times 2 + 3 + (4 + 5 + 6 \times 7) \times 89. \\
4545 &= 1^{234} \times 567 \times 8 + 9. \\
4546 &= 1^{234} + 567 \times 8 + 9. \\
4547 &= 1 + 2^{(3+4+5)} + (6 \times 7 + 8) \times 9. \\
4548 &= 1 \times 2 \times 3^4 \times 5 + 6 \times 7 \times 89. \\
4549 &= 1^{23} \times 4 + 567 \times 8 + 9. \\
4550 &= 1^{23} + 4 + 567 \times 8 + 9. \\
4551 &= 123 + 4 + 56 \times (7 + 8 \times 9). \\
4552 &= 1^2 \times 3 + 4 + 567 \times 8 + 9. \\
4553 &= 1 + 2 \times 34 \times 5 + 6 \times 78 \times 9. \\
4554 &= 1 \times 2 + 3 + 4 + 567 \times 8 + 9. \\
4555 &= 1 + 2 + 3 + 4 + 567 \times 8 + 9. \\
4556 &= 1 + 2 \times 3 + 4 + 567 \times 8 + 9. \\
4557 &= 1^2 \times 345 + 6 \times 78 \times 9. \\
4558 &= 1 + 2^3 + 4 + 567 \times 8 + 9. \\
4559 &= 1 \times 2 + 345 + 6 \times 78 \times 9. \\
4560 &= 1 + 2 + 345 + 6 \times 78 \times 9. \\
4561 &= 1^2 + 3^4 \times 56 + 7 + 8 + 9. \\
4562 &= 1 \times 2 + 3^4 \times 56 + 7 + 8 + 9. \\
4563 &= 1 + 2 + 3^4 \times 56 + 7 + 8 + 9. \\
4564 &= 12 + 3 + 4 + 567 \times 8 + 9. \\
4565 &= 1 \times (2 + 3) \times 4 + 567 \times 8 + 9. \\
4566 &= 1 + (2 + 3) \times 4 + 567 \times 8 + 9. \\
4567 &= 12 \times 34 \times (5 + 6) + 7 + 8 \times 9. \\
4568 &= 12 \times 3 \times 4 + 56 \times (7 + 8 \times 9). \\
4569 &= 12 + 345 + 6 \times 78 \times 9. \\
4570 &= 1 + 2 \times 3 \times 4 + 567 \times 8 + 9. \\
4571 &= 1^2 \times (3 + 4) \times (5 \times 6 + 7 \times 89). \\
4572 &= 1 \times 23 + 4 + 567 \times 8 + 9. \\
4573 &= 1 + 23 + 4 + 567 \times 8 + 9. \\
4574 &= 1 + (23 + 45) \times 67 + 8 + 9. \\
4575 &= 12 \times 34 \times (5 + 6) + 78 + 9. \\
4576 &= 1 \times 2 + 345 \times (6 + 7) + 89. \\
4577 &= 1 \times 2^3 \times 4 + 567 \times 8 + 9. \\
4578 &= 1 + 2^3 \times 4 + 567 \times 8 + 9. \\
4579 &= 1^2 \times 34 + 567 \times 8 + 9. \\
4580 &= 1^2 + 34 + 567 \times 8 + 9. \\
4581 &= 1 \times 2 + 34 + 567 \times 8 + 9. \\
4582 &= 1 + 2 + 34 + 567 \times 8 + 9. \\
4583 &= 12 + (3 + 4) \times (5 \times 6 + 7 \times 89). \\
4584 &= 1^{23} \times 4567 + 8 + 9. \\
4585 &= 1^{23} + 4567 + 8 + 9. \\
4586 &= 12 + 345 \times (6 + 7) + 89. \\
4587 &= 1^2 \times 3 + 4567 + 8 + 9. \\
4588 &= 1^2 + 3 + 4567 + 8 + 9. \\
4589 &= 1 \times 2 + 3 + 4567 + 8 + 9. \\
4590 &= 1 + 2 + 3 + 4567 + 8 + 9. \\
4591 &= 1 + 2 \times 3 + 4567 + 8 + 9. \\
4592 &= 1 \times 2^3 + 4567 + 8 + 9. \\
4593 &= 1 + 2^3 + 4567 + 8 + 9. \\
4594 &= 1^2 + 3 + 45 \times (6 + 7 + 89). \\
4595 &= 1 \times 2 + 3 + 45 \times (6 + 7 + 89). \\
4596 &= 1 + 2 + 3 + 45 \times (6 + 7 + 89). \\
4597 &= 1 + 2 \times 3 + 45 \times (6 + 7 + 89). \\
4598 &= 1 + 2 \times 34 \times 56 + 789. \\
4599 &= 12 + 3 + 4567 + 8 + 9. \\
4600 &= (1 \times 2 + 345) \times (6 + 7) + 89. \\
4601 &= 1^2 \times 3^4 \times 56 + 7 \times 8 + 9. \\
4602 &= 12 + 34 \times (56 + 7 + 8 \times 9). \\
4603 &= 1 \times 2 + 3^4 \times 56 + 7 \times 8 + 9. \\
4604 &= 1 + 2 + 3^4 \times 56 + 7 \times 8 + 9. \\
4605 &= 12 + 3 + 45 \times (6 + 7 + 89). \\
4606 &= 1 \times 2^{(3+4+5)} + 6 + 7 \times 8 \times 9. \\
4607 &= 1 \times 23 + 4567 + 8 + 9. \\
4608 &= 1 + 23 + 4567 + 8 + 9. \\
4609 &= 1234 + 5 \times (67 + 8) \times 9. \\
4610 &= 1 \times 2 + 3 \times 4 \times (5 \times (67 + 8) + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4541 &= 98 \times 7 \times 6 + 5 \times (4^3 + 21). \\
4542 &= 9 \times 87 + 6 \times 5^4 + 3^2 \times 1. \\
4543 &= 9 \times 87 + 6 \times 5^4 + 3^2 + 1. \\
4544 &= (9 + 8 \times 7 + 6) \times (54 + 3^2 + 1). \\
4545 &= 9 + 8 + 7 + 6 + 5 \times 43 \times 21. \\
4546 &= 98 \times 7 \times 6 + 5 \times 43 \times 2 \times 1. \\
4547 &= 98 \times 7 \times 6 + 5 \times 43 \times 2 + 1. \\
4548 &= 9 + 8 + 7 \times 6 \times 5 + 4321. \\
4549 &= 98 + 76 + 5^4 \times (3 \times 2 + 1). \\
4550 &= (9 + 8 \times 7) \times 65 + 4 + 321. \\
4551 &= (9 + 876 + 5^4) \times 3 + 21. \\
4552 &= 9 + 8 \times 7 \times 65 + 43 \times 21. \\
4553 &= 98 \times 7 \times 6 + 5 + 432 \times 1. \\
4554 &= 98 \times 7 \times 6 + 5 + 432 + 1. \\
4555 &= 9 \times (8 + 7 + 6 + 5) + 4321. \\
4556 &= 98 \times 7 + 6 \times 5 \times 43 \times (2 + 1). \\
4557 &= 9 \times 87 + 6 \times 5^4 + 3 + 21. \\
4558 &= ((9 \times 8 \times 7 + 65) \times 4 + 3) \times 2 \times 1. \\
4559 &= 9 \times 8 + 7 \times (6 + 5^4 + 3^2 + 1). \\
4560 &= 9 \times (8 + 7) \times 6 + 5^4 \times 3 \times 2 \times 1. \\
4561 &= 9 \times (8 + 7) \times 6 + 5^4 \times 3 \times 2 + 1. \\
4562 &= 987 + (6 + 5) \times (4 + 321). \\
4563 &= 9 \times 87 + (6 + 54) \times 3 \times 21. \\
4564 &= 9 \times 87 + 6 \times (5^4 + 3 + 2) + 1. \\
4565 &= 9 \times 87 + 6 \times 5^4 + 32 \times 1. \\
4566 &= 9 \times 87 + 6 \times 5^4 + 32 + 1. \\
4567 &= 9 + 8 + 7 \times 65 \times (4 + 3 + 2 + 1). \\
4568 &= 9 + 8 + 7 \times 65 \times (4 + 3 \times 2) + 1. \\
4569 &= 9 + (8 + 76) \times 54 + 3 + 21. \\
4570 &= 9 \times 87 + (6 + 5^4) \times 3 \times 2 + 1. \\
4571 &= (9 + 8) \times (7 + 65 \times 4) + 32 \times 1. \\
4572 &= 9 \times 87 + 6 \times (5^4 + 3) + 21. \\
4573 &= 9 + (8 \times (76 + 5) + 4) \times (3 \times 2 + 1). \\
4574 &= 9 + 8 + 7 \times 6 + 5 \times 43 \times 21. \\
4575 &= 9 \times 8 \times 7 + 6 \times 5^4 + 321. \\
4576 &= (9 + 8 + 7 \times 6 \times 54 + 3) \times 2 \times 1. \\
4577 &= 9 + (8 + 76) \times 54 + 32 \times 1. \\
4578 &= 9 + (8 + 76) \times 54 + 32 + 1. \\
4579 &= 9 + 8 + 76 \times 5 \times 4 \times 3 + 2 \times 1. \\
4580 &= 9 + 8 + 76 \times 5 \times 4 \times 3 + 2 + 1. \\
4581 &= 9 + 876 \times 5 + 4^3 \times (2 + 1). \\
4582 &= 98 + 76 \times (54 + 3 + 2) \times 1. \\
4583 &= 98 + 76 \times (54 + 3 + 2) + 1. \\
4584 &= (9 \times 8 \times 7 + 65 \times 4) \times 3 \times 2 \times 1. \\
4585 &= (9 \times 8 \times 7 + 65 \times 4) \times 3 \times 2 + 1. \\
4586 &= 9 + 8 \times 7 + 6 + 5 \times 43 \times 21. \\
4587 &= 9 \times 8 + 7 \times (6 \times 54 + 321). \\
4588 &= 9 \times (87 + 6) + 5^4 \times 3 \times 2 + 1. \\
4589 &= 9 + (8 + 7 \times (6 + 5 \times 4^3)) \times 2 \times 1. \\
4590 &= (98 + 7 \times 6 + 5^4) \times 3 \times 2 \times 1. \\
4591 &= (98 + 7 \times 6 + 5^4) \times 3 \times 2 + 1. \\
4592 &= (9 + 8) \times (7 + 65 \times 4 + 3) + 2 \times 1. \\
4593 &= 9 \times 87 + 6 \times (5^4 + 3^2 + 1). \\
4594 &= 9 \times 8 + 7 \times (6 + 5 \times 4^3 \times 2 \times 1). \\
4595 &= 9 + 8 + 7 \times (6 \times 54 + 3) \times 2 \times 1. \\
4596 &= 9 \times 87 + 6 \times 5^4 + 3 \times 21. \\
4597 &= (9 \times 8 + 7 + 6) \times 54 + 3 \times 2 + 1. \\
4598 &= 9 + 8 + 76 \times 5 \times 4 \times 3 + 21. \\
4599 &= 98 \times 7 \times 6 + (5 \times 4 + 3) \times 21. \\
4600 &= 9 \times 8 + 7 + 6 + 5 \times 43 \times 21. \\
4601 &= 9 + 8 + 7 \times 654 + 3 + 2 + 1. \\
4602 &= 9 + 8 + 7 \times 654 + 3 \times 2 + 1. \\
4603 &= 9 \times 8 + 7 \times 6 \times 5 + 4321. \\
4604 &= 9 + 8 + 7 \times 654 + 3^2 \times 1. \\
4605 &= 9 + 8 + 7 \times 654 + 3^2 + 1. \\
4606 &= 98 \times (7 + 6 \times 5 + 4 + 3 + 2 + 1). \\
4607 &= 9 + 8 + (7 \times 65 + 4) \times (3^2 + 1). \\
4608 &= 9 + 8 + 76 + 5 \times 43 \times 21. \\
4609 &= (9 + 8 + 7 + 6 \times 5 \times 4) \times 32 + 1. \\
4610 &= 98 \times 7 + 654 \times 3 \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4611 &= 1 \times 234 + 56 \times 78 + 9. \\
4612 &= 1 + 234 + 56 \times 78 + 9. \\
4613 &= 1 \times 2 \times 34 + 567 \times 8 + 9. \\
4614 &= 1 + 2 \times 34 + 567 \times 8 + 9. \\
4615 &= 1^2 \times 3^4 \times 56 + 7 + 8 \times 9. \\
4616 &= 1^2 + 3^4 \times 56 + 7 + 8 \times 9. \\
4617 &= 12 \times 345 + 6 \times 78 + 9. \\
4618 &= 1 + 2 + 3^4 \times 56 + 7 + 8 \times 9. \\
4619 &= 1 \times 2 + 3^4 \times 5 + 6 \times 78 \times 9. \\
4620 &= 12 \times 3 + 4567 + 8 + 9. \\
4621 &= 1^2 + 3 + (45 + 6 \times 78) \times 9. \\
4622 &= (1^2 + 3^4) \times 5 + 6 \times 78 \times 9. \\
4623 &= 1^2 \times 3^4 \times 56 + 78 + 9. \\
4624 &= 1^2 + 3^4 \times 56 + 78 + 9. \\
4625 &= 12 \times 34 + 5 + 6 \times 78 \times 9. \\
4626 &= 1 + 2 + 3^4 \times 56 + 78 + 9. \\
4627 &= 12 + 3^4 \times 56 + 7 + 8 \times 9. \\
4628 &= 1 \times 2 + 3^4 + 567 \times 8 + 9. \\
4629 &= 1 + 2 + 3^4 + 567 \times 8 + 9. \\
4630 &= 1 + 2^{(3+4)} \times 5 \times 6 + 789. \\
4631 &= 1 \times 2 \times (3 + 4 \times 567) + 89. \\
4632 &= 1^2 \times 3^4 \times 56 + 7 + 89. \\
4633 &= 1234 + 5 \times 678 + 9. \\
4634 &= 1 \times 2 + 3^4 \times 56 + 7 + 89. \\
4635 &= 12 + 3^4 \times 56 + 78 + 9. \\
4636 &= 12 + 34 \times (5 + 6 \times 7 + 89). \\
4637 &= 1 \times 23 \times 4 + 567 \times 8 + 9. \\
4638 &= 12 + 3^4 + 567 \times 8 + 9. \\
4639 &= 1^{23} \times 4567 + 8 \times 9. \\
4640 &= 1^{23} + 4567 + 8 \times 9. \\
4641 &= (1 + 23) \times 4 + 567 \times 8 + 9. \\
4642 &= 1^2 \times 3 + 4567 + 8 \times 9. \\
4643 &= 1^2 + 3 + 4567 + 8 \times 9. \\
4644 &= 1 \times 2 + 3 + 4567 + 8 \times 9. \\
4645 &= 1 \times 2 \times 3 + 4567 + 8 \times 9. \\
4646 &= 1 + 2 \times 3 + 4567 + 8 \times 9. \\
4647 &= 1 \times 2^3 + 4567 + 8 \times 9. \\
4648 &= 1 + 2^3 + 4567 + 8 \times 9. \\
4649 &= 1^{23} + 4 \times (5 + (6 + 7) \times 89). \\
4650 &= 12 \times 345 + 6 + 7 \times 8 \times 9. \\
4651 &= 1 + (2 + 3 + 45) \times (6 + 78 + 9). \\
4652 &= (1^2 + 3) \times (4^5 + 67 + 8 \times 9). \\
4653 &= (1 + 2 \times 34) \times 56 + 789. \\
4654 &= 12 + 3 + 4567 + 8 \times 9. \\
4655 &= 1^2 \times 3^4 \times 56 + 7 \times (8 + 9). \\
4656 &= 1^{23} \times 4567 + 89. \\
4657 &= 1^{23} + 4567 + 89. \\
4658 &= 1 \times 234 + 56 \times (7 + 8 \times 9). \\
4659 &= 1^2 \times 3 + 4567 + 89. \\
4660 &= 1^2 + 3 + 4567 + 89. \\
4661 &= 1 \times 2 + 3 + 4567 + 89. \\
4662 &= 1 \times 23 + 4567 + 8 \times 9. \\
4663 &= 1 + 23 + 4567 + 8 \times 9. \\
4664 &= 1 \times 2^3 + 4567 + 89. \\
4665 &= 1 + 2^3 + 4567 + 89. \\
4666 &= (1 + 2)^3 + 4567 + 8 \times 9. \\
4667 &= 12 + 3^4 \times 56 + 7 \times (8 + 9). \\
4668 &= 12 \times (34 + 5 \times (6 + 7 \times 8 + 9)). \\
4669 &= 1234 + 5 \times (678 + 9). \\
4670 &= 12 + 34 \times (5 \times (6 + 7) + 8 \times 9). \\
4671 &= 12 + 3 + 4567 + 89. \\
4672 &= 123 + 4 + 567 \times 8 + 9. \\
4673 &= 1 + 23 \times 4 \times 5 + 6 \times 78 \times 9. \\
4674 &= 1 + 2 + 3^4 \times 56 + (7 + 8) \times 9. \\
4675 &= 12 \times 3 + 4567 + 8 \times 9. \\
4676 &= 1 + (2 + 3)^4 + 5 \times 6 \times (7 + 8) \times 9. \\
4677 &= (12 + 3^4) \times 5 + 6 \times 78 \times 9. \\
4678 &= 1 + 2^{(3 \times 4)} + 5 + 6 \times (7 + 89). \\
4679 &= 1 \times 23 + 4567 + 89. \\
4680 &= 1 + 23 + 4567 + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4611 &= 98 \times 7 + 654 \times 3 \times 2 + 1. \\
4612 &= 9 \times 8 \times 7 + 6 + 5 + 4^{(3 \times 2)} + 1. \\
4613 &= 98 + 7 \times (6 \times 54 + 321). \\
4614 &= 9 + (8 + 7) \times 6 + 5 \times 43 \times 21. \\
4615 &= 98 \times (7 \times 6 + 5) + 4 + 3 + 2 \times 1. \\
4616 &= 98 \times (7 \times 6 + 5) + 4 + 3 + 2 + 1. \\
4617 &= 9 + 87 + 6 + 5 \times 43 \times 21. \\
4618 &= 9 \times (87 + 6) \times 5 + 432 + 1. \\
4619 &= 9 + 8 + 7 \times 654 + 3 + 21. \\
4620 &= 98 + 7 \times (6 + 5 \times 4 \times 32 \times 1). \\
4621 &= 98 \times (7 \times 6 + 5) + 4 \times 3 + 2 + 1. \\
4622 &= (9 + 87 + 6 + 5) \times 43 + 21. \\
4623 &= 9 \times 87 + 6 \times 5 \times 4^3 \times 2 \times 1. \\
4624 &= 9 \times 87 + 6 \times 5 \times 4^3 \times 2 + 1. \\
4625 &= 9 + 8 \times (7 + 6 + 543 + 21). \\
4626 &= 98 + 7 + 6 + 5 \times 43 \times 21. \\
4627 &= 9 + 8 + 7 \times 654 + 32 \times 1. \\
4628 &= 9 + 8 + 7 \times 654 + 32 + 1. \\
4629 &= 98 + 7 \times 6 \times 5 + 4321. \\
4630 &= 98 \times (7 \times 6 + 5) + 4 \times 3 \times 2 \times 1. \\
4631 &= 98 \times (7 \times 6 + 5) + 4 \times 3 \times 2 + 1. \\
4632 &= 9 + 8 + (765 + 4) \times 3 \times 2 + 1. \\
4633 &= 9 \times 8 + 76 \times (54 + 3 \times 2) + 1. \\
4634 &= 98 + (7 + 6 + 5) \times 4 \times 3 \times 21. \\
4635 &= 9 + 876 + 5^4 \times 3 \times 2 \times 1. \\
4636 &= 9 + 876 + 5^4 \times 3 \times 2 + 1. \\
4637 &= 9 + 8 + 7 \times (654 + 3 + 2 + 1). \\
4638 &= (9 \times 8 + 76 + 5^4) \times 3 \times 2 \times 1. \\
4639 &= 98 \times (7 \times 6 + 5) + 4 \times 3 + 21. \\
4640 &= 9 + (8 \times 7 + 6) \times 5 + 4321. \\
4641 &= 9 + 876 \times 5 + 4 \times 3 \times 21. \\
4642 &= 98 \times (7 \times 6 + 5) + 4 + 32 \times 1. \\
4643 &= 98 \times (7 \times 6 + 5) + 4 + 32 + 1. \\
4644 &= 9 + 8 + 7 \times (654 + 3 \times 2 + 1). \\
4645 &= (9 + 8 + 7 + 6 \times 5) \times 43 \times 2 + 1. \\
4646 &= 98 \times 7 + 6 \times 5 \times 4 \times (32 + 1). \\
4647 &= (98 + 7) \times (6 + 5) \times 4 + 3^{(2+1)}. \\
4648 &= 98 + 7 \times 65 \times (4 + 3 + 2 + 1). \\
4649 &= 98 + 7 \times 65 \times (4 + 3 \times 2) + 1. \\
4650 &= 9 \times 8 + 7 \times (6 \times 54 + 3) \times 2 \times 1. \\
4651 &= 98 \times (7 \times 6 + 5) + 43 + 2 \times 1. \\
4652 &= 98 \times (7 \times 6 + 5) + 43 + 2 + 1. \\
4653 &= 9 \times 8 + 76 \times 5 \times 4 \times 3 + 21. \\
4654 &= (((9 + 87) \times 6 + 5) \times 4 + 3) \times 2 \times 1. \\
4655 &= 98 + 7 \times 6 + 5 \times 43 \times 21. \\
4656 &= 9 \times 8 + 7 \times 654 + 3 + 2 + 1. \\
4657 &= 9 \times 8 + 7 \times 654 + 3 \times 2 + 1. \\
4658 &= 9 + 8 + 7 \times 654 + 3 \times 21. \\
4659 &= 9 \times 8 + 7 \times 654 + 3^2 \times 1. \\
4660 &= 98 + 76 \times 5 \times 4 \times 3 + 2 \times 1. \\
4661 &= 98 + 76 \times 5 \times 4 \times 3 + 2 + 1. \\
4662 &= 98 \times 7 \times 6 + 543 + 2 + 1. \\
4663 &= 9 \times 8 + 76 + 5 \times 43 \times 21. \\
4664 &= 9 \times 8 \times 7 + 65 \times (43 + 21). \\
4665 &= 9 + 8 + 7 + (6 + 5 \times 43) \times 21. \\
4666 &= 9 \times 8 \times 7 + 65 \times 4^3 + 2 \times 1. \\
4667 &= 9 \times 8 \times 7 + 65 \times 4^3 + 2 + 1. \\
4668 &= 9 \times 8 \times (7 \times 6 + 5) + 4 \times 321. \\
4669 &= (9 \times (8 \times 7 + 6 \times 5) + 4) \times 3 \times 2 + 1. \\
4670 &= 98 \times (7 \times 6 + 5) + 43 + 21. \\
4671 &= 9 + 8 \times 7 \times 6 + 5 + 4321. \\
4672 &= 9 + (8 + 765 + 4) \times 3 \times 2 + 1. \\
4673 &= 98 \times (7 \times 6 + 5) + 4 + 3 \times 21. \\
4674 &= 9 \times 8 + 7 \times 654 + 3 + 21. \\
4675 &= (9 \times 8 + 7 \times 6) \times (5 + 4 + 32) + 1. \\
4676 &= (9 + 8 \times 7 + 6) \times 5 + 4321. \\
4677 &= (9 + 876) \times 5 + 4 \times 3 \times 21. \\
4678 &= (9 + 87) \times 6 + 5 + 4^{(3 \times 2)} + 1. \\
4679 &= 98 + 76 \times 5 \times 4 \times 3 + 21. \\
4680 &= 98 \times 7 \times 6 + 543 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4681 &= 1 + 2^{(3 \times 4)} + 567 + 8 + 9. \\
4682 &= 1 \times 2 + (3 + 4 + 5) \times 6 \times (7 \times 8 + 9). \\
4683 &= (1 + 2)^3 + 4567 + 89. \\
4684 &= 1^{23} \times 4 + 5 \times (6 + 7) \times 8 \times 9. \\
4685 &= 12 \times 345 + 67 \times 8 + 9. \\
4686 &= 123 \times (4 + 5 \times 6) + 7 \times 8 \times 9. \\
4687 &= 1 + 2 \times (3 + 4 \times 567 + 8 \times 9). \\
4688 &= (1^2 + 3^4) \times 56 + 7 + 89. \\
4689 &= 12 \times 3 \times 4 + 567 \times 8 + 9. \\
4690 &= 1^{23} + (4 + 56) \times 78 + 9. \\
4691 &= 1 + 2 \times 3 + 4 + 5 \times (6 + 7) \times 8 \times 9. \\
4692 &= 12 \times 3 + 4567 + 89. \\
4693 &= 1^2 + 3 + 45 \times (6 + 7) \times 8 + 9. \\
4694 &= 1 \times 2 + 3 + 45 \times (6 + 7) \times 8 + 9. \\
4695 &= (1 + 23 + 45) \times 67 + 8 \times 9. \\
4696 &= 1 + 2 \times 3 + 45 \times (6 + 7) \times 8 + 9. \\
4697 &= (123 + 456 + 7) \times 8 + 9. \\
4698 &= 12 \times 345 + (6 + 7 \times 8) \times 9. \\
4699 &= 12 + 3 + 4 + 5 \times (6 + 7) \times 8 \times 9. \\
4700 &= 1 \times 2 + (3 + 45 + 6) \times (78 + 9). \\
4701 &= 1 + 2 + (3 + 45 + 6) \times (78 + 9). \\
4702 &= 1^2 + 3 + (4 + 5) \times 6 \times (78 + 9). \\
4703 &= 1 \times 2 + 3 + (4 + 5) \times 6 \times (78 + 9). \\
4704 &= 12 + 3 + 45 \times (6 + 7) \times 8 + 9. \\
4705 &= 1 + 2^3 \times (4 + 567 + 8 + 9). \\
4706 &= 1 \times 2^3 + (4 + 5) \times 6 \times (78 + 9). \\
4707 &= 123 + 4567 + 8 + 9. \\
4708 &= 1 + 2 \times 3^4 + 567 \times 8 + 9. \\
4709 &= 123 \times 4 + 5 + 6 \times 78 \times 9. \\
4710 &= 12 + (3 + 45 + 6) \times (78 + 9). \\
4711 &= (1^2 + 3^4) \times 56 + 7 \times (8 + 9). \\
4712 &= (1 + 23 + 45) \times 67 + 89. \\
4713 &= 123 + 45 \times (6 + 7 + 89). \\
4714 &= 1 + (2 + 3^4) \times 56 + 7 \times 8 + 9. \\
4715 &= 12 \times 3^4 + 5 + 6 \times 7 \times 89. \\
4716 &= 12 \times 345 + 6 \times (7 + 89). \\
4717 &= (1^2 + 34 + 5 + 6 + 7) \times 89. \\
4718 &= (1 + 2 \times 3) \times (45 + 6 + 7 \times 89). \\
4719 &= (1 + 2^3 \times 4) \times (56 + 78 + 9). \\
4720 &= 1 \times 2 \times (3 + 4 \times 567 + 89). \\
4721 &= 1 + 2 \times (3 + 4 \times 567 + 89). \\
4722 &= 1^2 + 3 \times 4 \times 56 \times 7 + 8 + 9. \\
4723 &= 1 \times 2 + 3 \times 4 \times 56 \times 7 + 8 + 9. \\
4724 &= 1 + 2 + 3 \times 4 \times 56 \times 7 + 8 + 9. \\
4725 &= 12 \times 3 + 45 \times (6 + 7) \times 8 + 9. \\
4726 &= 12 + 34 + 5 \times (6 + 7) \times 8 \times 9. \\
4727 &= (1 + 2) \times 3 \times 456 + 7 \times 89. \\
4728 &= 12 \times (3 + 4) \times 56 + 7 + 8 + 9. \\
4729 &= 1 + 2^3 \times (456 + (7 + 8) \times 9). \\
4730 &= (12 + 345) \times (6 + 7) + 89. \\
4731 &= (1 + 2 + 3)^4 + 5 \times (678 + 9). \\
4732 &= 1 + (2 \times 3)^4 + 5 \times (678 + 9). \\
4733 &= 12 + 3 \times 4 \times 56 \times 7 + 8 + 9. \\
4734 &= 1^{2345} \times 6 \times 789. \\
4735 &= 1^{2345} + 6 \times 789. \\
4736 &= 1 + (2 + 3^4) \times 56 + 78 + 9. \\
4737 &= (1 \times 2 \times 3 \times 4 + 567) \times 8 + 9. \\
4738 &= 1 + (2 \times 3 \times 4 + 567) \times 8 + 9. \\
4739 &= 1^{234} \times 5 + 6 \times 789. \\
4740 &= 1^{234} + 5 + 6 \times 789. \\
4741 &= 1^{23} + (4 + 56) \times (7 + 8 \times 9). \\
4742 &= (1 + 2 + 3 \times 4 \times 56) \times 7 + 8 + 9. \\
4743 &= 1^{23} \times 4 + 5 + 6 \times 789. \\
4744 &= 1^{23} + 4 + 5 + 6 \times 789. \\
4745 &= 1 + (2 + 3^4) \times 56 + 7 + 89. \\
4746 &= 1^2 \times 3 + 4 + 5 + 6 \times 789. \\
4747 &= 1^2 + 3 + 4 + 5 + 6 \times 789. \\
4748 &= 1 \times 2 + 3 + 4 + 5 + 6 \times 789. \\
4749 &= 1 + 2 + 3 + 4 + 5 + 6 \times 789. \\
4750 &= 1 + 2 \times 3 + 4 + 5 + 6 \times 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4681 &= 98 + 7 \times 654 + 3 + 2 \times 1. \\
4682 &= 98 + 7 \times 654 + 3 + 2 + 1. \\
4683 &= 9 \times 8 + 7 \times 654 + 32 + 1. \\
4684 &= 9 + (8 + (7 + 6) \times 5) \times 4^3 + 2 + 1. \\
4685 &= 98 + 7 \times 654 + 3^2 \times 1. \\
4686 &= 98 + 7 \times 654 + 3^2 + 1. \\
4687 &= 9 \times 8 + (765 + 4) \times 3 \times 2 + 1. \\
4688 &= 98 + (7 \times 65 + 4) \times (3^2 + 1). \\
4689 &= 98 + 76 + 5 \times 43 \times 21. \\
4690 &= 9 \times 8 \times (7 + 6) \times 5 + 4 + 3 + 2 + 1. \\
4691 &= 98 \times (7 \times 6 + 5) + 4^3 + 21. \\
4692 &= 98 \times (7 \times 6 + 5) + 43 \times 2 \times 1. \\
4693 &= 98 \times (7 \times 6 + 5) + 43 \times 2 + 1. \\
4694 &= (9 + 8) \times 76 + 54 \times 3 \times 21. \\
4695 &= (9 + 876 + 54) \times (3 + 2) \times 1. \\
4696 &= (9 + 876 + 54) \times (3 + 2) + 1. \\
4697 &= (9 + 8 \times 76 + 54) \times (3 \times 2 + 1). \\
4698 &= 9 \times (8 + 76 + 5 + 432 + 1). \\
4699 &= 98 + 7 \times (654 + 3) + 2 \times 1. \\
4700 &= 98 + 7 \times 654 + 3 + 21. \\
4701 &= 9 \times 8 \times (7 \times 6 + 5 \times 4 + 3) + 21. \\
4702 &= 98 \times (7 \times 6 + 5) + 4 \times (3 + 21). \\
4703 &= 98 + 7 \times 654 + 3^{(2+1)}. \\
4704 &= (9 + 8 + 76 + 54) \times 32 \times 1. \\
4705 &= (9 + 8 + 76 + 54) \times 32 + 1. \\
4706 &= 9 + 8 \times (7 \times 6 + 5) + 4321. \\
4707 &= 9 \times 87 + 654 \times 3 \times 2 \times 1. \\
4708 &= 98 + 7 \times 654 + 32 \times 1. \\
4709 &= 98 + 7 \times 654 + 32 + 1. \\
4710 &= 9 + 8 \times (7 \times 6 + 543) + 21. \\
4711 &= 98 + 7 \times (654 + 3 + 2 \times 1). \\
4712 &= 9 \times 87 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
4713 &= 9 \times 8 + 7 \times 654 + 3 \times 21. \\
4714 &= 9 + 876 \times 5 + 4 + 321. \\
4715 &= 9 \times 87 \times 6 - 5 + 4 - 3 + 21. \\
4716 &= 9 \times 87 \times 6 + 5 + 4 + 3^2 \times 1. \\
4717 &= 9 \times 87 \times 6 + 5 + 4 + 3^2 + 1. \\
4718 &= 9 + 8 + 76 \times 5 + 4321. \\
4719 &= (98 + 76) \times (5 + 4) \times 3 + 21. \\
4720 &= 9 \times 8 + 7 + (6 + 5 \times 43) \times 21. \\
4721 &= (9 + 8 + 7 \times 65) \times (4 + 3 \times 2) + 1. \\
4722 &= 9 \times 87 \times 6 + (5 + 4 + 3) \times 2 \times 1. \\
4723 &= 9 \times 87 \times 6 + 5 \times 4 + 3 + 2 \times 1. \\
4724 &= 9 \times 87 \times 6 + 5 \times 4 + 3 + 2 + 1. \\
4725 &= 9 \times 87 \times 6 + 5 \times 4 + 3 \times 2 + 1. \\
4726 &= 9 \times (8 + 7 + 6 \times 5) + 4321. \\
4727 &= 98 + (7 + 65) \times 4^3 + 21. \\
4728 &= 9 \times 87 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
4729 &= 9 + 8 + 76 \times (5 \times 4 \times 3 + 2) \times 1. \\
4730 &= 9 + 8 + 76 \times (5 \times 4 \times 3 + 2) + 1. \\
4731 &= 9 \times 87 \times 6 + 5 + 4 + 3 + 21. \\
4732 &= 9 + 876 \times 5 + (4 + 3)^{(2+1)}. \\
4733 &= 9 \times 87 \times 6 + (5 + 4 \times 3) \times 2 + 1. \\
4734 &= 98 + 76 \times (54 + 3 \times 2 + 1). \\
4735 &= 98 \times (7 \times 6 + 5) + 4 \times 32 + 1. \\
4736 &= 9 \times 87 \times 6 + 5 + 4 \times 3 + 21. \\
4737 &= 9 + 87 + (6 + 5 \times 43) \times 21. \\
4738 &= (98 + 7 \times 6 \times 54 + 3) \times 2 \times 1. \\
4739 &= 98 + 7 \times 654 + 3 \times 21. \\
4740 &= 9 \times 87 \times 6 + 5 + 4 + 32 + 1. \\
4741 &= (9 + 8) \times (7 + 6) \times 5 \times 4 + 321. \\
4742 &= 9 \times 87 \times 6 + 5 \times 4 + 3 + 21. \\
4743 &= 987 + 6 + 5^4 \times 3 \times 2 \times 1. \\
4744 &= 987 + 6 + 5^4 \times 3 \times 2 + 1. \\
4745 &= 9 \times 87 \times 6 + (5 \times 4 + 3) \times 2 + 1. \\
4746 &= 987 + 6 \times 5^4 + 3^2 \times 1. \\
4747 &= 987 + 6 \times 5^4 + 3^2 + 1. \\
4748 &= 98 \times 7 \times 6 + 5^4 + 3 \times 2 + 1. \\
4749 &= 9 \times 87 \times 6 + 5 + 43 + 2 + 1. \\
4750 &= 987 + (6 + 5^4 \times 3) \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4751 &= 1^2 \times 3 \times 4 + 5 + 6 \times 789. \\
4752 &= 1 + 2^3 + 4 + 5 + 6 \times 789. \\
4753 &= 1 \times 2 + 3 \times 4 + 5 + 6 \times 789. \\
4754 &= 1 + 2 + 3 \times 4 + 5 + 6 \times 789. \\
4755 &= 1^{23} + 4 \times 5 + 6 \times 789. \\
4756 &= 1 + 2 + (3 + 4) \times (56 + 7 \times 89). \\
4757 &= 1^2 \times 3 + 4 \times 5 + 6 \times 789. \\
4758 &= 12 + 3 + 4 + 5 + 6 \times 789. \\
4759 &= 1 \times 2 + 3 + 4 \times 5 + 6 \times 789. \\
4760 &= 12^3 + 45 \times 67 + 8 + 9. \\
4761 &= 12^3 + 4 + 5 + 6 \times 7 \times 8 \times 9. \\
4762 &= 123 + 4567 + 8 \times 9. \\
4763 &= 12 + 3 \times 4 + 5 + 6 \times 789. \\
4764 &= 1 + 2 \times 345 \times 6 + 7 \times 89. \\
4765 &= 1^2 \times 3 + 4^5 + 6 \times 7 \times 89. \\
4766 &= 1 \times 23 + 4 + 5 + 6 \times 789. \\
4767 &= 1 + 23 + 4 + 5 + 6 \times 789. \\
4768 &= 1 + 2 + 3 + 4^5 + 6 \times 7 \times 89. \\
4769 &= 12 + 3 + 4 \times 5 + 6 \times 789. \\
4770 &= (1 + 2)^3 + 4 + 5 + 6 \times 789. \\
4771 &= 1 + 2^3 + 4^5 + 6 \times 7 \times 89. \\
4772 &= 12^3 + 4 \times 5 + 6 \times 7 \times 8 \times 9. \\
4773 &= 1^2 \times 34 + 5 + 6 \times 789. \\
4774 &= 1^2 + 34 + 5 + 6 \times 789. \\
4775 &= 1 \times 2 + 34 + 5 + 6 \times 789. \\
4776 &= 1 + 2 + 34 + 5 + 6 \times 789. \\
4777 &= 12 + 3 + 4^5 + 6 \times 7 \times 89. \\
4778 &= 1 + 23 + 4 \times 5 + 6 \times 789. \\
4779 &= 123 + 4567 + 89. \\
4780 &= 1 + 234 + 567 \times 8 + 9. \\
4781 &= 12 + (3 + 4) \times 5 + 6 \times 789. \\
4782 &= 1^2 \times 3 + 45 + 6 \times 789. \\
4783 &= 1^2 + 3 + 45 + 6 \times 789. \\
4784 &= 1 \times 2 + 3 + 45 + 6 \times 789. \\
4785 &= 12 + 34 + 5 + 6 \times 789. \\
4786 &= 1 + 2 \times 3 + 45 + 6 \times 789. \\
4787 &= 1 \times 2^3 + 45 + 6 \times 789. \\
4788 &= 12 + 3 \times 4 \times 56 \times 7 + 8 \times 9. \\
4789 &= (1 + 2)^3 + 4^5 + 6 \times 7 \times 89. \\
4790 &= 12 \times 3 + 4 \times 5 + 6 \times 789. \\
4791 &= 12 \times (3 + 4) \times 56 + 78 + 9. \\
4792 &= 1 \times 2 + (3 + 4) \times (5 + 678) + 9. \\
4793 &= 1^2 \times 3 \times 4 \times 56 \times 7 + 89. \\
4794 &= 12 + 3 + 45 + 6 \times 789. \\
4795 &= 1^2 + 3 \times 4 \times 5 + 6 \times 789. \\
4796 &= 1 + 2 + 3 \times 4 \times 56 \times 7 + 89. \\
4797 &= 12^3 + 45 + 6 \times 7 \times 8 \times 9. \\
4798 &= 12 \times 3 + 4^5 + 6 \times 7 \times 89. \\
4799 &= (12 + 3) \times 4 + 5 + 6 \times 789. \\
4800 &= 12 \times (3 + 4) \times 56 + 7 + 89. \\
4801 &= 1 + 2^3 \times 4 \times 5 \times (6 + 7 + 8 + 9). \\
4802 &= 1 \times 23 + 45 + 6 \times 789. \\
4803 &= 1 + 23 + 45 + 6 \times 789. \\
4804 &= 1234 + 5 \times 6 \times 7 \times (8 + 9). \\
4805 &= 123 \times (4 + 5 \times 6) + 7 \times 89. \\
4806 &= 12 + 3 \times 4 \times 5 + 6 \times 789. \\
4807 &= 1 \times 2 \times 34 + 5 + 6 \times 789. \\
4808 &= 1 + 2 \times 34 + 5 + 6 \times 789. \\
4809 &= (1 + 2 + 3 \times 4) \times 5 + 6 \times 789. \\
4810 &= (1 + 2 + 3 + 4) \times (56 \times 7 + 89). \\
4811 &= 1 \times 2 + 3 \times 4 \times (56 \times 7 + 8) + 9. \\
4812 &= 123 + 45 \times (6 + 7) \times 8 + 9. \\
4813 &= 1 + 2 \times (34 + 5) + 6 \times 789. \\
4814 &= (1 + 2 + 3 \times 4 \times 56) \times 7 + 89. \\
4815 &= 12^3 + 45 \times 67 + 8 \times 9. \\
4816 &= 1 \times 2 \times (34 \times 56 + 7 \times 8 \times 9). \\
4817 &= 1 + 2 \times (34 \times 56 + 7 \times 8 \times 9). \\
4818 &= (1 + 23) \times 45 + 6 \times 7 \times 89. \\
4819 &= (1^{23} + 4 + 56) \times (7 + 8 \times 9). \\
4820 &= 1^2 \times 3^4 + 5 + 6 \times 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4751 &= 98 \times 7 \times 6 + 5^4 + 3^2 + 1. \\
4752 &= 9 \times 8 \times 7 \times 6 + 54 \times 32 \times 1. \\
4753 &= 9 \times 8 \times 7 \times 6 + 54 \times 32 + 1. \\
4754 &= 9 \times 87 \times 6 + 5 \times (4 + 3) + 21. \\
4755 &= 9 + 8 + 7 \times (6 + 5^4) + 321. \\
4756 &= 98 \times 7 \times 6 + 5 \times 4^3 \times 2 \times 1. \\
4757 &= 98 \times 7 + 6 \times 5^4 + 321. \\
4758 &= 9 \times 87 \times 6 + 54 + 3 + 2 + 1. \\
4759 &= 9 \times 87 \times 6 + 54 + 3 \times 2 + 1. \\
4760 &= 9 \times 87 \times 6 + 5 \times 4 \times 3 + 2 \times 1. \\
4761 &= 987 + 6 \times 5^4 + 3 + 21. \\
4762 &= 9 \times 87 \times 6 + 54 + 3^2 + 1. \\
4763 &= 9 + 8 + 7 \times (654 + 3 + 21). \\
4764 &= (9 \times 8 + 7) \times (6 + 54) + 3 + 21. \\
4765 &= 98 \times 7 \times 6 + 5^4 + 3 + 21. \\
4766 &= 9 \times 8 \times (7 + 6) \times 5 + 43 \times 2 \times 1. \\
4767 &= 9 \times 87 \times 6 + 5 + 43 + 21. \\
4768 &= 987 + 6 \times (5^4 + 3 + 2) + 1. \\
4769 &= 9 \times 87 \times 6 + 5 + 4^3 + 2 \times 1. \\
4770 &= 987 + 6 \times 5^4 + 32 + 1. \\
4771 &= 9 \times (87 \times 6 + 5) + 4 + 3 + 21. \\
4772 &= (9 \times 8 + 7) \times (6 + 54) + 32 \times 1. \\
4773 &= 9 \times 8 + 76 \times 5 + 4321. \\
4774 &= 98 \times 7 \times 6 + 5^4 + 32 + 1. \\
4775 &= (98 + 7 \times (6 \times 54 + 3)) \times 2 + 1. \\
4776 &= 9 \times 87 \times 6 + 54 + 3 + 21. \\
4777 &= 9 + 8 + 7 + (6 + 5) \times 432 + 1. \\
4778 &= (9 \times 8 + 76 \times 5 \times 4) \times 3 + 2 \times 1. \\
4779 &= 9 \times 87 \times 6 + 5 \times 4 \times 3 + 21. \\
4780 &= 9 \times 87 \times 6 + (5 + 4) \times 3^2 + 1. \\
4781 &= 9 \times 87 \times 6 + 5 \times 4 + 3 \times 21. \\
4782 &= (98 \times (7 + 6) + 5 \times 4^3) \times (2 + 1). \\
4783 &= 9 \times (87 \times 6 + 5) + 4 \times (3^2 + 1). \\
4784 &= 9 \times 87 \times 6 + 54 + 32 \times 1. \\
4785 &= 9 \times 87 \times 6 + 54 + 32 + 1. \\
4786 &= (9 + 8 + 76) \times 5 + 4321. \\
4787 &= 9 + 8 + 7 + (6 + 5) \times (432 + 1). \\
4788 &= 9 \times 87 \times 6 + 5 + 4^3 + 21. \\
4789 &= 9 \times 87 \times 6 + 5 + 43 \times 2 \times 1. \\
4790 &= 9 \times 87 \times 6 + 5 + 43 \times 2 + 1. \\
4791 &= 9 + 8 + 7 + 6 + (5 + 4^3)^2 \times 1. \\
4792 &= 9 + 8 + 7 + 6 + (5 + 4^3)^2 + 1. \\
4793 &= 9 + 8 + 7 \times 65 + 4321. \\
4794 &= (98 + 76 + 5^4) \times 3 \times 2 \times 1. \\
4795 &= 9 + (87 + 6) \times 5 + 4321. \\
4796 &= (98 + 7 \times 6) \times 5 + 4^{(3+2+1)}. \\
4797 &= 987 + 6 \times (5^4 + 3^2 + 1). \\
4798 &= 9 \times 87 \times 6 + 5 \times 4 \times (3 + 2) \times 1. \\
4799 &= 98 + 76 \times 5 + 4321. \\
4800 &= 987 + 6 \times 5^4 + 3 \times 21. \\
4801 &= (98 + (7 + 6) \times 54) \times 3 \times 2 + 1. \\
4802 &= (9 + 8 + 76 + 5) \times (4 + 3)^2 \times 1. \\
4803 &= (9 \times 8 + 7) \times (6 + 54) + 3 \times 21. \\
4804 &= 98 \times 7 \times 6 + 5^4 + 3 \times 21. \\
4805 &= 98 \times (7 + 6 \times 5 + 4 \times 3) + 2 + 1. \\
4806 &= 9 + 8 + 76 \times (54 + 3^2) + 1. \\
4807 &= 9 \times (87 \times 6 + 5) + 43 + 21. \\
4808 &= 9 \times 8 \times (7 + 6) \times 5 + 4 \times 32 \times 1. \\
4809 &= 9 \times 8 \times (7 + 6) \times 5 + 4 \times 32 + 1. \\
4810 &= 9 \times 8 + 7 \times (6 + 5^4) + 321. \\
4811 &= 98 + 76 \times (5 \times 4 \times 3 + 2) + 1. \\
4812 &= 9 \times 87 \times 6 + (54 + 3) \times 2 \times 1. \\
4813 &= 9 \times 87 \times 6 + (54 + 3) \times 2 + 1. \\
4814 &= 98 \times 7 + 6 \times (5^4 + 3 \times 21). \\
4815 &= 9 \times 87 \times 6 + 54 + 3 \times 21. \\
4816 &= (9 + 87 + 6 + 5) \times (43 + 2) + 1. \\
4817 &= 9 + 8 \times 7 + (6 + 5) \times 432 \times 1. \\
4818 &= 9 \times 87 \times 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
4819 &= 9 \times 87 \times 6 + 5 \times 4 \times 3 \times 2 + 1. \\
4820 &= (98 + 76 \times 5 + 4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
4821 &= 1^2 + 3^4 + 5 + 6 \times 789. \\
4822 &= 1 \times 2 + 3^4 + 5 + 6 \times 789. \\
4823 &= 1 + 2 + 3^4 + 5 + 6 \times 789. \\
4824 &= 1^{2345} \times 67 \times 8 \times 9. \\
4825 &= 1^{2345} + 67 \times 8 \times 9. \\
4826 &= 1 + 2^{(3+4)} \times (5 \times 6 + 7) + 89. \\
4827 &= 12 \times 345 + 678 + 9. \\
4828 &= 1 \times (23 + 45) \times (6 + 7 \times 8 + 9). \\
4829 &= 1^{234} \times 5 + 67 \times 8 \times 9. \\
4830 &= 1^{234} + 5 + 67 \times 8 \times 9. \\
4831 &= 1 \times 23 \times 4 + 5 + 6 \times 789. \\
4832 &= 12 + 3^4 + 5 + 6 \times 789. \\
4833 &= 1^{23} \times 4 + 5 + 67 \times 8 \times 9. \\
4834 &= 1^{23} + 4 + 5 + 67 \times 8 \times 9. \\
4835 &= 12 \times (345 + 6) + 7 \times 89. \\
4836 &= 1^2 \times 3 + 4 + 5 + 67 \times 8 \times 9. \\
4837 &= 1^2 + 3 + 4 + 5 + 67 \times 8 \times 9. \\
4838 &= 1 \times 2 + 3 + 4 + 5 + 67 \times 8 \times 9. \\
4839 &= (12 + 3) \times 45 \times 6 + 789. \\
4840 &= 1 + 2 \times 3 + 4 + 5 + 67 \times 8 \times 9. \\
4841 &= 1 \times 2^3 + 4 + 5 + 67 \times 8 \times 9. \\
4842 &= 1 \times 2 \times 345 + 6 + 78 \times 9. \\
4843 &= 1 + 2 \times 345 \times 6 + 78 \times 9. \\
4844 &= 1 + 2 + 3 \times 4 + 5 + 67 \times 8 \times 9. \\
4845 &= 1^{23} + 4 \times 5 + 67 \times 8 \times 9. \\
4846 &= 1 \times 2 + (3 + 4) \times (5 + 678 + 9). \\
4847 &= 1^2 \times 3 + 4 \times 5 + 67 \times 8 \times 9. \\
4848 &= 12 \times 345 + 6 + 78 \times 9. \\
4849 &= 1 \times 2 + 3 + 4 \times 5 + 67 \times 8 \times 9. \\
4850 &= 1 + 2 + 3 + 4 \times 5 + 67 \times 8 \times 9. \\
4851 &= 1 + 2 \times 3 + 4 \times 5 + 67 \times 8 \times 9. \\
4852 &= 1 \times 2^3 + 4 \times 5 + 67 \times 8 \times 9. \\
4853 &= 12 + 3 \times 4 + 5 + 67 \times 8 \times 9. \\
4854 &= 1 \times 2 \times 3 \times 4 \times 5 + 6 \times 789. \\
4855 &= 1 + 2 \times 3 \times 4 \times 5 + 6 \times 789. \\
4856 &= 1 \times 23 + 4 + 5 + 67 \times 8 \times 9. \\
4857 &= 1 + 23 + 4 + 5 + 67 \times 8 \times 9. \\
4858 &= 1 \times 2 \times (3 \times 4 + 5) + 67 \times 8 \times 9. \\
4859 &= 12 + 3 + 4 \times 5 + 67 \times 8 \times 9. \\
4860 &= 12 \times (3 + 4 + 56 + 7) + 8 \times 9. \\
4861 &= 1 \times 2^3 \times 4 + 5 + 67 \times 8 \times 9. \\
4862 &= 1 + 2^3 \times 4 + 5 + 67 \times 8 \times 9. \\
4863 &= 1^2 \times 34 + 5 + 67 \times 8 \times 9. \\
4864 &= 1^2 + 34 + 5 + 67 \times 8 \times 9. \\
4865 &= 1 \times 2 + 34 + 5 + 67 \times 8 \times 9. \\
4866 &= 123 + 4 + 5 + 6 \times 789. \\
4867 &= 1 \times 23 + 4 \times 5 + 67 \times 8 \times 9. \\
4868 &= 1 + 23 + 4 \times 5 + 67 \times 8 \times 9. \\
4869 &= 123 \times 4 + 56 \times 78 + 9. \\
4870 &= 1^{23} + 45 + 67 \times 8 \times 9. \\
4871 &= 1 \times 2 + 3 \times 45 + 6 \times 789. \\
4872 &= 1 + 2 + 3 \times 45 + 6 \times 789. \\
4873 &= 1^2 + 3 + 45 + 67 \times 8 \times 9. \\
4874 &= 1 \times 2 + 3 + 45 + 67 \times 8 \times 9. \\
4875 &= 12 + 34 + 5 + 67 \times 8 \times 9. \\
4876 &= 1 + 2 \times 3 + 45 + 67 \times 8 \times 9. \\
4877 &= 123 + 4 \times 5 + 6 \times 789. \\
4878 &= 1 + 2^3 + 45 + 67 \times 8 \times 9. \\
4879 &= 1 + 2 \times 3 \times (4 + 5) + 67 \times 8 \times 9. \\
4880 &= 12 \times 3 + 4 \times 5 + 67 \times 8 \times 9. \\
4881 &= 12 + 3 \times 45 + 6 \times 789. \\
4882 &= 1 + 2 + 3 + 4 + 56 \times (78 + 9). \\
4883 &= 12 \times 3 \times 4 + 5 + 6 \times 789. \\
4884 &= 12 + 3 + 45 + 67 \times 8 \times 9. \\
4885 &= 123 + 4^5 + 6 \times 7 \times 89. \\
4886 &= 1 \times 2 + 3 \times 4 \times 5 + 67 \times 8 \times 9. \\
4887 &= 1 + 2 + 3 \times 4 \times 5 + 67 \times 8 \times 9. \\
4888 &= (1^2 + 3) \times 4 + 56 \times (78 + 9). \\
4889 &= (12 + 3) \times 4 + 5 + 67 \times 8 \times 9. \\
4890 &= 12 \times 3^4 \times 5 + 6 + 7 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4821 &= 9 + 876 \times 5 + 432 \times 1. \\
4822 &= 9 + 876 \times 5 + 432 + 1. \\
4823 &= 98 \times (7 + 6 \times 5 + 4 \times 3) + 21. \\
4824 &= 9 \times (87 \times 6 + 5 + 4 + 3 + 2 \times 1). \\
4825 &= 9 \times 8 \times 7 + 6 \times 5 \times (4 \times 3)^2 + 1. \\
4826 &= 9 + 8 + 7 \times (654 + 32 + 1). \\
4827 &= 987 + 6 \times 5 \times 4^3 \times 2 \times 1. \\
4828 &= 987 + 6 \times 5 \times 4^3 \times 2 + 1. \\
4829 &= 9 \times 8 \times (7 + 6 + 54) + 3 + 2 \times 1. \\
4830 &= 9 \times (87 \times 6 + 5) + 43 \times 2 + 1. \\
4831 &= 9 \times 87 \times 6 + 5 + 4^3 \times 2 \times 1. \\
4832 &= 9 \times 87 \times 6 + 5 + 4^3 \times 2 + 1. \\
4833 &= 9 \times 8 \times (7 + 6 + 54) + 3^2 \times 1. \\
4834 &= 98 + (7 + 6 \times 5) \times 4^3 \times 2 \times 1. \\
4835 &= 98 + (7 + 6 \times 5) \times 4 \times 32 + 1. \\
4836 &= 9 \times 8 \times 7 + 6 + 5 + 4321. \\
4837 &= 98 \times 7 \times 6 + 5 \times (4 \times 3)^2 + 1. \\
4838 &= 9 \times 87 \times 6 + 5 \times 4 \times (3 \times 2 + 1). \\
4839 &= 9 + 8 + 7 + (6 + 5 + 4) \times 321. \\
4840 &= 9 \times 8 \times 76 - 5^4 - 3 \times 2 - 1. \\
4841 &= 9 + 8 + (7 + 65) \times (4 + 3 \times 21). \\
4842 &= (9 \times 8 \times 7 + 6 \times 5 + 4) \times 3^2 \times 1. \\
4843 &= 9 \times 87 \times 6 + (5 + 4 + 3)^2 + 1. \\
4844 &= 98 + 7 \times (654 + 3 + 21). \\
4845 &= 9 + (8 \times 7 + 6) \times (54 + 3 + 21). \\
4846 &= 98 \times 7 + 65 \times (43 + 21). \\
4847 &= (9 \times 8 + 7 + 6) \times (54 + 3) + 2 \times 1. \\
4848 &= 9 \times 8 + 7 \times 65 + 4321. \\
4849 &= 98 \times 7 + 65 \times 4^3 + 2 + 1. \\
4850 &= 9 + 8 \times (7 + 6) \times 5 + 4321. \\
4851 &= (98 + 76 + 54 + 3) \times 21. \\
4852 &= 9 \times 8 \times 76 - 5^4 + 3 \times 2 - 1. \\
4853 &= 9 \times 87 \times 6 + 5 \times (4 + 3^{(2+1)}). \\
4854 &= 9 \times 87 + 6 \times 5^4 + 321. \\
4855 &= 9 \times 8 \times 7 + 6 \times 5 + 4321. \\
4856 &= 9 \times 8 \times (7 + 6 + 54) + 32 \times 1. \\
4857 &= 9 + 87 \times 6 + 5 + 4321. \\
4858 &= 98 + 7 + (6 + 5) \times 432 + 1. \\
4859 &= 9 \times 8 \times 7 + 65 \times (4 + 3 \times 21). \\
4860 &= 9 + 8 \times 7 \times 6 + 5 \times 43 \times 21. \\
4861 &= 9 \times 8 + 7 \times 6 \times (54 + 3) \times 2 + 1. \\
4862 &= 9 \times 87 \times 6 + 54 \times 3 + 2 \times 1. \\
4863 &= 9 \times 87 \times 6 + 54 \times 3 + 2 + 1. \\
4864 &= 9 + 87 + 6 + (5 + 4^3)^2 + 1. \\
4865 &= 98 + 7 \times (654 + 3^{(2+1)}). \\
4866 &= 9 + (8 + 76) \times 54 + 321. \\
4867 &= 98 \times 7 + 65 \times 4^3 + 21. \\
4868 &= 9 + 8 + 7 \times (6 + (5 + 4) \times 3) \times 21. \\
4869 &= 9 \times 87 \times 6 + (54 + 3) \times (2 + 1). \\
4870 &= 9 + (8 + 7) \times 6 \times (5 + 4) \times 3 \times 2 + 1. \\
4871 &= 9 \times (87 \times 6 + 5) + 4 \times 32 \times 1. \\
4872 &= 9 \times (87 \times 6 + 5) + 4 \times 32 + 1. \\
4873 &= 98 + 7 + 6 + (5 + 4^3)^2 + 1. \\
4874 &= 98 + 7 \times 65 + 4321. \\
4875 &= 9 + (8 + 7) \times 6 \times 54 + 3 \times 2 \times 1. \\
4876 &= (98 + 7 + 6) \times 5 + 4321. \\
4877 &= (9 + 8 \times 7) \times (6 + 5 + 4^3) + 2 \times 1. \\
4878 &= 9 \times 8 \times 7 \times 6 + 5 + 43^2 \times 1. \\
4879 &= 9 \times 87 \times 6 + 5 \times 4 \times 3^2 + 1. \\
4880 &= 9 + 8 \times 7 + (6 + 5 + 4) \times 321. \\
4881 &= 9 \times 87 \times 6 + 54 \times 3 + 21. \\
4882 &= (98 \times 7 + 6 + 5) \times (4 + 3) + 2 + 1. \\
4883 &= 9 \times 87 \times 6 + 5 \times (4 + 32 + 1). \\
4884 &= 9 \times (8 \times 7 + 6) + 5 + 4321. \\
4885 &= (9 + 8 \times 7 + 6 + 5) \times 4^3 + 21. \\
4886 &= 98 + 76 \times (54 + 3^2 \times 1). \\
4887 &= 98 + 76 \times (54 + 3^2) + 1. \\
4888 &= 9 + (87 \times 6 + 5 \times 4) \times 3^2 + 1. \\
4889 &= 9 + 8 \times (7 \times (6 + (5 + 4) \times 3^2) + 1). \\
4890 &= 9 \times 87 + 6 + 5 + 4^{(3+2+1)}.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4891 &= 12 + 3 + 4 + 56 \times (78 + 9). \\
4892 &= 1 \times 23 + 45 + 67 \times 8 \times 9. \\
4893 &= 1 + 23 + 45 + 67 \times 8 \times 9. \\
4894 &= 1 \times 2^3 \times 4 \times 5 + 6 \times 789. \\
4895 &= 1 + 2^3 \times 4 \times 5 + 6 \times 789. \\
4896 &= 12 + 3 \times 4 + 56 \times (78 + 9). \\
4897 &= 1 \times 2 \times 34 + 5 + 67 \times 8 \times 9. \\
4898 &= 1 + 2 \times 34 + 5 + 67 \times 8 \times 9. \\
4899 &= 1 \times 23 + 4 + 56 \times (78 + 9). \\
4900 &= 1 + 23 + 4 + 56 \times (78 + 9). \\
4901 &= 1 \times 2 \times 3^4 + 5 + 6 \times 789. \\
4902 &= 123 + 45 + 6 \times 789. \\
4903 &= 1 + 2 \times 345 + 6 \times 78 \times 9. \\
4904 &= 1^2 \times 34 \times 5 + 6 \times 789. \\
4905 &= 12 \times 3 + 45 + 67 \times 8 \times 9. \\
4906 &= 1 \times 2 + 34 \times 5 + 6 \times 789. \\
4907 &= 1 + 2 + 34 \times 5 + 6 \times 789. \\
4908 &= 1 \times 234 \times 5 + 6 \times 7 \times 89. \\
4909 &= 1 + 234 \times 5 + 6 \times 7 \times 89. \\
4910 &= 1^2 \times 3^4 + 5 + 67 \times 8 \times 9. \\
4911 &= 1^2 + 3^4 + 5 + 67 \times 8 \times 9. \\
4912 &= 1 \times 2 + 3^4 + 5 + 67 \times 8 \times 9. \\
4913 &= 1 + 2 + 3^4 + 5 + 67 \times 8 \times 9. \\
4914 &= 1 \times (2 + 34) \times 5 + 6 \times 789. \\
4915 &= 1 + 234 + 5 \times (6 + 7) \times 8 \times 9. \\
4916 &= 12 + 34 \times 5 + 6 \times 789. \\
4917 &= 12 + 34 \times (5 + 6 + 7) \times 8 + 9. \\
4918 &= 12 + 34 + 56 \times (78 + 9). \\
4919 &= 12 \times 3^4 \times 5 + 6 \times 7 + 8 + 9. \\
4920 &= 1 \times 2 \times (3 + 45) + 67 \times 8 \times 9. \\
4921 &= 1 \times 23 \times 4 + 5 + 67 \times 8 \times 9. \\
4922 &= 1 + 23 \times 4 + 5 + 67 \times 8 \times 9. \\
4923 &= (1^2 \times 3 + 4 + 56) \times 78 + 9. \\
4924 &= 1^2 + (3 + 4 + 56) \times 78 + 9. \\
4925 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 7 \times 8 + 9. \\
4926 &= 1 + 2 \times 3^4 \times 5 \times 6 + 7 \times 8 + 9. \\
4927 &= 123 - 4 \times 5 + 67 \times 8 \times 9. \\
4928 &= 12^3 + 4 \times (5 + 6 + 789). \\
4929 &= 1 \times 2 \times 345 \times 6 + 789. \\
4930 &= 1 + 2 \times 345 \times 6 + 789. \\
4931 &= 12 \times 3^4 \times 5 + 6 + 7 \times 8 + 9. \\
4932 &= 12 \times 3 \times 4 \times 5 + 6 \times 78 \times 9. \\
4933 &= 1 + (2 + 34) \times (5 \times (6 + 7) + 8 \times 9). \\
4934 &= (12 \times 3 + 4) \times 5 + 6 \times 789. \\
4935 &= 12 \times 345 + 6 + 789. \\
4936 &= (1 + 2 + 3)^4 + 56 \times (7 \times 8 + 9). \\
4937 &= 12^3 + 456 \times 7 + 8 + 9. \\
4938 &= 1 \times 2 \times 3 \times (4 + 5 \times 6 + 789). \\
4939 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 7 + 8 \times 9. \\
4940 &= 1 + 2 \times 3^4 \times 5 \times 6 + 7 + 8 \times 9. \\
4941 &= 1 \times 23 \times (4 + 5) + 6 \times 789. \\
4942 &= 1 + 23 \times (4 + 5) + 6 \times 789. \\
4943 &= 12 \times 3 \times 4 \times 5 \times 6 + 7 \times 89. \\
4944 &= 12 \times 3^4 \times 5 + 67 + 8 + 9. \\
4945 &= 12 \times 3^4 \times 5 + 6 + 7 + 8 \times 9. \\
4946 &= 1 + 2^{(3 \times 4)} + 56 \times (7 + 8) + 9. \\
4947 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 78 + 9. \\
4948 &= 1 + 2 \times 3^4 \times 5 \times 6 + 78 + 9. \\
4949 &= (1 + 2 \times 3 \times 4) \times 5 + 67 \times 8 \times 9. \\
4950 &= 12 \times 345 + 6 \times (7 + 8) \times 9. \\
4951 &= (1 + 2 \times 345 + 6) \times 7 + 8 \times 9. \\
4952 &= 1 \times 2 \times (3 + 4 \times (5 + 6) \times 7 \times 8 + 9). \\
4953 &= 12 \times 34 + 567 \times 8 + 9. \\
4954 &= 1^2 + 3^4 + 56 \times (78 + 9). \\
4955 &= 1 \times 2 + 3^4 + 56 \times (78 + 9). \\
4956 &= 123 + 4 + 5 + 67 \times 8 \times 9. \\
4957 &= 1 + 2 \times 3^4 \times 5 \times 6 + 7 + 89. \\
4958 &= 1 + 2^{(3+4)} + 5 + 67 \times 8 \times 9. \\
4959 &= 1^2 \times 3 \times 45 + 67 \times 8 \times 9. \\
4960 &= 1^2 + 3 \times 45 + 67 \times 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4891 &= (9 \times 8 + 7 \times 6) \times 5 + 4321. \\
4892 &= 9 + 8 + (7 + 6) \times (54 + 321). \\
4893 &= 9 + (8 + 7) \times 6 \times 54 + 3 + 21. \\
4894 &= 9 \times 8 + 7 + (6 + 5 + 4) \times 321. \\
4895 &= 9 \times 87 \times 6 + 5 + 4^3 \times (2 + 1). \\
4896 &= 9 \times 8 \times (7 \times 6 + 5 \times 4 + 3 \times 2 \times 1). \\
4897 &= ((9 + 8 + 7) \times 6 + 5 + 4) \times 32 + 1. \\
4898 &= 9 + 8 \times 76 \times 5 + 43^2 + 1. \\
4899 &= 9 + 8 \times 76 \times 5 + 43^2 + 1. \\
4900 &= 98 + 7 \times (654 + 32) \times 1. \\
4901 &= 9 \times 8 \times 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
4902 &= 9 \times 8 \times 7 \times 6 + 5^4 \times 3 + 2 + 1. \\
4903 &= (9 \times 87 + 6 \times 5 + 4) \times 3 \times 2 + 1. \\
4904 &= (9 + (8 + 7 + 6) \times 5) \times 43 + 2 \times 1. \\
4905 &= (9 + 8 \times 7) \times 6 + 5 \times 43 \times 21. \\
4906 &= 9 + 8 \times (7 + 65) + 4321. \\
4907 &= 98 + 7 \times (654 + 32 + 1). \\
4908 &= 9 \times 8 \times 7 \times 6 + (5^4 + 3) \times (2 + 1). \\
4909 &= 9 \times 8 + 76 + (5 + 4^3)^2 \times 1. \\
4910 &= 98 \times (7 + 6 \times 5) + 4 \times 321. \\
4911 &= 987 + 654 \times 3 \times 2 \times 1. \\
4912 &= 987 + 654 \times 3 \times 2 + 1. \\
4913 &= (9 + 8) \times (7 + 6 \times 5 + 4 \times 3 \times 21). \\
4914 &= (98 + 76 + 5 \times 4 \times 3) \times 21. \\
4915 &= 9 \times 87 \times 6 + 5 \times 43 + 2 \times 1. \\
4916 &= 9 + 8 + 7 \times 654 + 321. \\
4917 &= (9 + 87 + 6) \times (5 + 43) + 21. \\
4918 &= 9 \times (8 \times 7 \times 6 + 5) + 43^2 \times 1. \\
4919 &= 9 \times (8 \times 7 \times 6 + 5) + 43^2 + 1. \\
4920 &= 98 + 7 + (6 + 5 + 4) \times 321. \\
4921 &= (98 + 7 \times 6) \times 5 \times (4 + 3) + 21. \\
4922 &= 98 + (7 + 65) \times (4 + 3 \times 21). \\
4923 &= 9 \times 87 \times 6 + 5 \times (43 + 2 \times 1). \\
4924 &= 9 \times 87 \times 6 + 5 \times (43 + 2) + 1. \\
4925 &= (987 + 654) \times 3 + 2 \times 1. \\
4926 &= (987 + 654) \times 3 + 2 + 1. \\
4927 &= 9 \times 8 \times 76 - 543 - 2 \times 1. \\
4928 &= 9 \times 87 \times 6 + 5 \times (43 + 2 + 1). \\
4929 &= 987 + 6 \times (5^4 + 32 \times 1). \\
4930 &= 987 + 6 \times (5^4 + 32) + 1. \\
4931 &= 98 \times (7 \times 6 + 5) + 4 + 321. \\
4932 &= 9 + (8 + 7) \times 6 \times 54 + 3 \times 21. \\
4933 &= 9 + 8 \times 7 \times 65 + 4 \times 321. \\
4934 &= 9 \times 87 \times 6 + 5 \times 43 + 21. \\
4935 &= (9 + 8 \times 76) \times 5 + 43^2 + 1. \\
4936 &= 98 + 76 + (5 + 4^3)^2 + 1. \\
4937 &= 9 + 8 \times (76 + 54 \times (3^2 + 1)). \\
4938 &= 9 + (87 + 6) \times (5 \times 4 + 32 + 1). \\
4939 &= 9 \times (87 + 6) + 5 + 4^{(3 \times 2)} + 1. \\
4940 &= (9 + (8 + 7) \times 65 + 4) \times (3 + 2) \times 1. \\
4941 &= 9 \times (87 + 6 \times 5 + 432 \times 1). \\
4942 &= 9 \times (87 + (6 \times 5 + 432)) + 1. \\
4943 &= 9 + 8 \times 76 + 5 + 4321. \\
4944 &= (9 + 8 + 7) \times (6 + 5 \times 4 \times (3^2 + 1)). \\
4945 &= 9 \times 87 + 65 \times 4^3 + 2 \times 1. \\
4946 &= 9 + 8 \times 7 \times (6 + 5) + 4321. \\
4947 &= 987 + 6 \times 5 \times 4 \times (32 + 1). \\
4948 &= 9 + 8 + 7 \times (6 + 5) \times 4^3 + 2 + 1. \\
4949 &= (9 + 8) \times (76 + 5 \times 43) + 2 \times 1. \\
4950 &= (9 + 8) \times ((7 + 65) \times 4 + 3) + 2 + 1. \\
4951 &= (9 + 87) \times 6 + 5^4 \times (3 \times 2 + 1). \\
4952 &= (9 + 8 \times 7 \times (6 + 5) \times 4 + 3) \times 2 \times 1. \\
4953 &= 9 \times (8 + 7) \times 6 \times 5 + 43 \times 21. \\
4954 &= -9 + 8 + 7 \times 6 + (5 + 4 \times 3)^{(2+1)}. \\
4955 &= 9 \times 87 \times 6 + 5 + 4 \times 3 \times 21. \\
4956 &= (98 + 7) \times 6 + 5 + 4321. \\
4957 &= 9 + 8 + 76 \times 5 \times (4 + 3^2) \times 1. \\
4958 &= 9 + 8 + 76 \times 5 \times (4 + 3^2) + 1. \\
4959 &= 98 + 765 + 4^{(3+2+1)}. \\
4960 &= (9 + 87 \times 6 + 5 \times 4) \times 3^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
4961 &= 1 \times 2 + 3 \times 45 + 67 \times 8 \times 9. \\
4962 &= 12 \times 3^4 \times 5 + 6 + 7 + 89. \\
4963 &= 1 \times (2 \times 34 + 5) \times 67 + 8 \times 9. \\
4964 &= (12 + 34) \times 5 + 6 \times 789. \\
4965 &= 12 + 3^4 + 56 \times (78 + 9). \\
4966 &= 1 \times 2 + 34 \times (5 + 6 + (7 + 8) \times 9). \\
4967 &= 123 + 4 \times 5 + 67 \times 8 \times 9. \\
4968 &= 12 \times 3 \times (45 + 6 + 78 + 9). \\
4969 &= 1 + 2 \times 34 \times (5 + 67) + 8 \times 9. \\
4970 &= 1 \times 2 \times (3 + 4) \times 5 \times (6 + 7 \times 8 + 9). \\
4971 &= 12 + 3 \times 45 + 67 \times 8 \times 9. \\
4972 &= 1^2 + 3 \times (4 \times 56 \times 7 + 89). \\
4973 &= 1 \times 234 + 5 + 6 \times 789. \\
4974 &= 1 + 234 + 5 + 6 \times 789. \\
4975 &= (1 + 2 \times 34 + 5) \times 67 + 8 + 9. \\
4976 &= 12 + 34 \times (5 + 6 + (7 + 8) \times 9). \\
4977 &= 1234 + 5 + 6 \times 7 \times 89. \\
4978 &= 1^2 + (3 + 4 + 56) \times (7 + 8 \times 9). \\
4979 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 7 \times (8 + 9). \\
4980 &= 1 \times (2 \times 34 + 5) \times 67 + 89. \\
4981 &= 1 + (2 \times 34 + 5) \times 67 + 89. \\
4982 &= (1 + 2) \times 3^4 + 5 + 6 \times 789. \\
4983 &= 12 + 3 \times (4 \times 56 \times 7 + 89). \\
4984 &= 1 \times 2^3 \times 4 \times 5 + 67 \times 8 \times 9. \\
4985 &= 1 + 2^3 \times 4 \times 5 + 67 \times 8 \times 9. \\
4986 &= 1 \times 2 \times (345 + 6) \times 7 + 8 \times 9. \\
4987 &= 1 + 2 \times (345 + 6) \times 7 + 8 \times 9. \\
4988 &= 12^3 + 4 \times (5 + 6 \times (7 + 8) \times 9). \\
4989 &= 12 + (3 + 4 + 56) \times (7 + 8 \times 9). \\
4990 &= 1 \times 2 \times (3^4 \times 5 \times 6 + 7 \times 8 + 9). \\
4991 &= 12 \times 3^4 \times 5 + 6 \times 7 + 89. \\
4992 &= 123 + 45 + 67 \times 8 \times 9. \\
4993 &= 1 + (23 + 4 + 5) \times (67 + 89). \\
4994 &= 1^2 \times 34 \times 5 + 67 \times 8 \times 9. \\
4995 &= 1^2 + 34 \times 5 + 67 \times 8 \times 9. \\
4996 &= 1 \times 2 + 34 \times 5 + 67 \times 8 \times 9. \\
4997 &= 1 + 2 + 34 \times 5 + 67 \times 8 \times 9. \\
4998 &= (1^2 + 3 + 45) \times (6 + 7 + 89). \\
4999 &= 12 \times 3^4 \times 5 + 67 + 8 \times 9. \\
5000 &= 1 \times 2 + (3 \times 4 + 5 \times 6) \times 7 \times (8 + 9). \\
5001 &= 12 \times (345 + 6) + 789. \\
5002 &= 1^2 + (34 + 5 \times 6) \times 78 + 9. \\
5003 &= 1 \times 2 \times (345 + 6) \times 7 + 89. \\
5004 &= 1 \times 2 \times 3 \times 45 + 6 \times 789. \\
5005 &= 1 + 2 \times 3 \times 45 + 6 \times 789. \\
5006 &= 12 + 34 \times 5 + 67 \times 8 \times 9. \\
5007 &= 1^2 \times 3 + (4 \times 5 + 67 \times 8) \times 9. \\
5008 &= 1^2 + 3 + (4 \times 5 + 67 \times 8) \times 9. \\
5009 &= 12^3 + 456 \times 7 + 89. \\
5010 &= 12 \times (3 + 4 \times 5) + 6 \times 789. \\
5011 &= 1 \times 23 \times (4 + 5 \times 6 \times 7) + 89. \\
5012 &= 1 + 23 \times (4 + 5 \times 6 \times 7) + 89. \\
5013 &= 12 + (34 + 5 \times 6) \times 78 + 9. \\
5014 &= 1234 + 5 \times (6 + 78) \times 9. \\
5015 &= 1^2 \times ((3 + 45) \times 6 + 7) \times (8 + 9). \\
5016 &= 12 \times 3^4 \times 5 + 67 + 89. \\
5017 &= (1 \times 234 + 56 \times 7) \times 8 + 9. \\
5018 &= (1^2 + 3)^4 \times 5 + 6 \times 7 \times 89. \\
5019 &= 123 + (45 + 6) \times (7 + 89). \\
5020 &= -1 + (2 + 3) \times 4^2 - 6 \times (7 + 8) - 9. \\
5021 &= -1 + 2 \times 3^4 \times 5 + 6 \times 78 \times 9. \\
5022 &= 12 \times 3 \times 4 \times 5 \times 6 + 78 \times 9. \\
5023 &= 1 + 2 \times 3^4 \times 5 + 6 \times 78 \times 9. \\
5024 &= (12 \times 3 + 4) \times 5 + 67 \times 8 \times 9. \\
5025 &= 1^2 \times 3 + (4 + 5) \times (6 + 7 \times 8) \times 9. \\
5026 &= 1^2 + 3 + (4 + 5) \times (6 + 7 \times 8) \times 9. \\
5027 &= (1 + 2 \times 3^4) \times 5 + 6 \times 78 \times 9. \\
5028 &= 12 \times (3 \times 4 + 5) + 67 \times 8 \times 9. \\
5029 &= 1 + (234 + 5) \times (6 + 7 + 8) + 9. \\
5030 &= (1 + 2 \times 34 + 5) \times 67 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
4961 &= 9 \times (8 \times 7 \times 6 + 5 \times 43) + 2 \times 1. \\
4962 &= 98 + 76 \times (54 + 3^2 + 1). \\
4963 &= (9 \times 87 + (6 + 5) \times 4) \times 3 \times 2 + 1. \\
4964 &= 9 \times 87 + 65 \times 4^3 + 21. \\
4965 &= 9 \times (8 + 7 \times 6) + 5 \times 43 \times 21. \\
4966 &= 9 + 8 + 7 \times (6 + 5) \times 4^3 + 21. \\
4967 &= (98 + 76) \times 5 + 4^{(3 \times 2)} + 1. \\
4968 &= 9 + 87 \times (6 + 5 + 43 + 2 + 1). \\
4969 &= 9 \times 87 \times 6 + 54 \times (3 + 2) + 1. \\
4970 &= 9 \times 8 \times (7 \times 6 + (5 + 4) \times 3) + 2 \times 1. \\
4971 &= 9 \times 8 + 7 \times 654 + 321. \\
4972 &= (9 \times 8 + 76 \times 5) \times (4 + 3 \times 2 + 1). \\
4973 &= 98 + (7 + 6) \times (54 + 321). \\
4974 &= (987 + 6) \times 5 + 4 + 3 + 2 \times 1. \\
4975 &= (987 + 6) \times 5 + 4 + 3 + 2 + 1. \\
4976 &= (987 + 6) \times 5 + 4 + 3 \times 2 + 1. \\
4977 &= 9 + 8 \times (76 + 543 + 2 \times 1). \\
4978 &= 9 + 8 \times (76 + 5) + 4321. \\
4979 &= (987 + 6) \times 5 + 4 + 3^2 + 1. \\
4980 &= (987 + 6) \times 5 + 4 \times 3 + 2 + 1. \\
4981 &= (9 + 8) \times ((7 + 65) \times 4 + 3 + 2 \times 1). \\
4982 &= ((9 + 8 \times 76 + 5) \times 4 + 3) \times 2 \times 1. \\
4983 &= ((9 + 8 \times 76 + 5) \times 4 + 3) \times 2 + 1. \\
4984 &= (9 + 8 \times 76 + 5^4 \times 3) \times 2 \times 1. \\
4985 &= (9 + 8 \times (7 \times (6 + 5) \times 4 + 3) \times 2 \times 1). \\
4986 &= 9 \times (8 \times 7 \times 6 + 5 \times 43 + 2 + 1). \\
4987 &= 9 \times 87 \times 6 + (5 + 4) \times 32 + 1. \\
4988 &= 9 \times 87 \times 6 + (5 + 4 \times 3)^2 + 1. \\
4989 &= (987 + 6) \times 5 + 4 \times 3 \times 2 \times 1. \\
4990 &= (987 + 6) \times 5 + 4 \times 3 \times 2 + 1. \\
4991 &= (98 + 7 + 6 + 5) \times 43 + 2 + 1. \\
4992 &= (9 + 87 + 6 + 54) \times 32 \times 1. \\
4993 &= 9 + 8 \times 7 \times 65 + 4^3 \times 21. \\
4994 &= 9 + 8 \times 7 \times (65 + 4 \times 3 \times 2) + 1. \\
4995 &= (98 + 7 + 6) \times 5 \times (4 + 3 + 2) \times 1. \\
4996 &= (98 + 7 + 6) \times 5 \times (4 + 3 + 2) + 1. \\
4997 &= 98 + 7 \times 654 + 321. \\
4998 &= (987 + 6) \times 5 + 4 \times 3 + 21. \\
4999 &= (98 + 7) \times 6 \times 5 + 43^2 \times 1. \\
5000 &= (98 + 7) \times 6 \times 5 + 43^2 + 1. \\
5001 &= 9 + (87 + 65 + 4) \times 32 \times 1. \\
5002 &= (987 + 6) \times 5 + 4 + 32 + 1. \\
5003 &= 9 \times 8 + 7 \times (6 + 5) \times 4^3 + 2 + 1. \\
5004 &= 98 \times (7 \times 6 + 5 + 4) + 3 + 2 + 1. \\
5005 &= 9 \times 8 \times (7 + 6) \times 5 + 4 + 321. \\
5006 &= 98 \times 7 + 6 \times 5 \times (4 \times 3)^2 \times 1. \\
5007 &= 98 \times 7 + 6 \times 5 \times (4 \times 3)^2 + 1. \\
5008 &= 98 \times (7 \times 6 + 5 + 4) + 3^2 + 1. \\
5009 &= (98 + 7 + 6 + 5) \times 43 + 21. \\
5010 &= (987 + 6) \times 5 + 43 + 2 \times 1. \\
5011 &= (987 + 6) \times 5 + 43 + 2 + 1. \\
5012 &= (98 + 76 + 5) \times (4 + 3 + 21). \\
5013 &= (98 + 7 \times 65 + 4) \times 3^2 \times 1. \\
5014 &= (98 + 7 \times 65 + 4) \times 3^2 + 1. \\
5015 &= (9 \times 8 + 7 + 6) \times (54 + 3 + 2 \times 1). \\
5016 &= 9 \times (8 + 7) \times (6 \times 5 + 4 + 3) + 21. \\
5017 &= (9 + 8 \times 7 + 6 + 5) \times (4^3 + 2) + 1. \\
5018 &= 98 \times 7 + 6 + 5 + 4321. \\
5019 &= (9 + 8 + 7 \times 6 \times 5 + 4 \times 3) \times 21. \\
5020 &= 9 \times 87 \times 6 + 5 \times 4^3 + 2 \times 1. \\
5021 &= 9 \times 87 \times 6 + 5 \times 4^3 + 2 + 1. \\
5022 &= 9 \times 87 \times 6 + 54 \times 3 \times 2 \times 1. \\
5023 &= 9 \times 87 \times 6 + 54 \times 3 \times 2 + 1. \\
5024 &= 98 \times 7 \times 6 + 5 + 43 \times 21. \\
5025 &= 9 \times 8 \times 7 + 6 + 5 \times 43 \times 21. \\
5026 &= 98 + 7 \times (6 + 5) \times (43 + 21). \\
5027 &= 9 \times (8 \times 7 + 6) \times (5 + 4) + 3 + 2 \times 1. \\
5028 &= 9 + 87 \times 6 \times (5 + 4) + 321. \\
5029 &= (987 + 6) \times 5 + 43 + 21. \\
5030 &= 98 \times (7 \times 6 + 5 + 4) + 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5031 &= 1 \times 23 \times (4 + 5) + 67 \times 8 \times 9. \\
5032 &= 1 + 23 \times (4 + 5) + 67 \times 8 \times 9. \\
5033 &= 12 \times (345 + 67) + 89. \\
5034 &= (12 + 3) \times 4 \times 5 + 6 \times 789. \\
5035 &= 1 + 2 \times 3^4 + 56 \times (78 + 9). \\
5036 &= 1 + 2 + (3 + 4) \times (5 + 6 \times 7 \times (8 + 9)). \\
5037 &= 123 \times 4 + 567 \times 8 + 9. \\
5038 &= 1 + 2^{(3 \times 4)} + 5 + (6 + 7) \times 8 \times 9. \\
5039 &= 1 \times (2 \times 3)^4 + 5 + 6 \times 7 \times 89. \\
5040 &= 1^2 \times 3^4 \times 56 + 7 \times 8 \times 9. \\
5041 &= 1^2 + 3^4 \times 56 + 7 \times 8 \times 9. \\
5042 &= 1 \times 2 + 3^4 \times 56 + 7 \times 8 \times 9. \\
5043 &= 1 + 2 + 3^4 \times 56 + 7 \times 8 \times 9. \\
5044 &= -1 + (2 + 3) \times 4^5 - 6 - 78 + 9. \\
5045 &= 1 \times 23 + (4 + 5) \times (6 + 7 \times 8) \times 9. \\
5046 &= (1 + 2 \times 3 + 45 + 6) \times (78 + 9). \\
5047 &= (1 + 2 \times 34 + 5) \times 67 + 89. \\
5048 &= 1 - 2 + 3 \times 4 \times 5 \times (6 + 78) + 9. \\
5049 &= (1 + 2 \times 3) \times 45 + 6 \times 789. \\
5050 &= 1 + (2 + 3) \times 45 + 67 \times 8 \times 9. \\
5051 &= 1 \times 2 + (34 + 56) \times 7 \times 8 + 9. \\
5052 &= 12 + 3^4 \times 56 + 7 \times 8 \times 9. \\
5053 &= 1 + 2 \times (3^4 \times 5 \times 6 + 7 + 89). \\
5054 &= (12 + 34) \times 5 + 67 \times 8 \times 9. \\
5055 &= 1 + 2 \times (34 \times 56 + 7 \times 89). \\
5056 &= 1^2 \times (34 + 5 \times 6) \times (7 + 8 \times 9). \\
5057 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 + 8 + 9. \\
5058 &= 1 + 2 \times 3 \times 4 \times 5 \times 6 \times 7 + 8 + 9. \\
5059 &= 1 + 2 + (34 + 5 \times 6) \times (7 + 8 \times 9). \\
5060 &= 123 \times (4 + 5 \times 6 + 7) + 8 + 9. \\
5061 &= 12 + (34 + 56) \times 7 \times 8 + 9. \\
5062 &= 1^2 + 3 \times (4 + 5 \times 6 \times 7 \times 8) + 9. \\
5063 &= 1 \times 234 + 5 + 67 \times 8 \times 9. \\
5064 &= 12 \times 34 \times 5 + 6 \times 7 \times 8 \times 9. \\
5065 &= (1 \times 2 + 3) \times (4 \times 56 + 789). \\
5066 &= (1 + 234 + 56 + 7) \times (8 + 9). \\
5067 &= (123 \times 4 + 56 + 7 + 8) \times 9. \\
5068 &= 12 + (34 + 5 \times 6) \times (7 + 8 \times 9). \\
5069 &= 1 \times 23 \times 4 \times (5 + 6 \times 7 + 8) + 9. \\
5070 &= (12 + 3 \times 4 \times 5 + 6) \times (7 \times 8 + 9). \\
5071 &= 1^2 + 3 \times (4 \times 5 + 6) \times (7 \times 8 + 9). \\
5072 &= (1 + 2) \times 3^4 + 5 + 67 \times 8 \times 9. \\
5073 &= (1 + 2 + 3 + 4 + 5 + 6 \times 7) \times 89. \\
5074 &= 1 \times 2 \times 34 \times 5 + 6 \times 789. \\
5075 &= 1 + 2 \times 34 \times 5 + 6 \times 789. \\
5076 &= 12 \times 345 + (6 + 7) \times 8 \times 9. \\
5077 &= 1 + 2 + (3^4 + 5) \times (6 \times 7 + 8 + 9). \\
5078 &= 12 + 34 \times (5 + 6 \times (7 + 8 + 9)). \\
5079 &= 1^2 \times 345 + 6 \times 789. \\
5080 &= 1^2 + 345 + 6 \times 789. \\
5081 &= 1 \times 2 + 345 + 6 \times 789. \\
5082 &= 1 + 2 + 345 + 6 \times 789. \\
5083 &= 1 + 2 \times 3 \times (4 \times 56 + 7 \times 89). \\
5084 &= 1^2 + (3 + 4 \times 5) \times (6 + 7) \times (8 + 9). \\
5085 &= (1 \times 23 \times 4 + 5 + 6 \times 78) \times 9. \\
5086 &= 12 + (3^4 + 5) \times (6 \times 7 + 8 + 9). \\
5087 &= 1 \times 23 \times 4 \times 56 - 7 \times 8 - 9. \\
5088 &= 12 \times 34 + 5 \times (6 + 7) \times 8 \times 9. \\
5089 &= 1 + (2^3 + 4) \times (5 \times 67 + 89). \\
5090 &= 1 \times 2 + 3 \times 4 \times (5 \times 67 + 89). \\
5091 &= 12 + 345 + 6 \times 789. \\
5092 &= 1 + 2 \times 3 + 45 \times ((6 + 7) \times 8 + 9). \\
5093 &= (1 + 2)^3 \times 4 \times (5 + 6 \times 7) + 8 + 9. \\
5094 &= 1 \times 2^3 \times 45 + 6 \times 789. \\
5095 &= 1 + 2^3 \times 45 + 6 \times 789. \\
5096 &= (1^2 + 3^4) \times 56 + 7 \times 8 \times 9. \\
5097 &= 12^3 + 4 \times 56 \times (7 + 8) + 9. \\
5098 &= 1 \times 2 \times (3^4 \times 5 \times 6 + 7 \times (8 + 9)). \\
5099 &= (12 \times 3 \times 4 \times 5 + 6) \times 7 + 8 + 9. \\
5100 &= (12 + 3 + 45) \times (6 + 7 + 8 \times 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5031 &= (987 + 6) \times 5 + 4^3 + 2 \times 1. \\
5032 &= (987 + 6) \times 5 + 4 + 3 \times 21. \\
5033 &= 98 \times 7 + (65 + 4) \times 3 \times 21. \\
5034 &= 9 \times (87 \times 6 + 5 \times (4 + 3)) + 21. \\
5035 &= 9 + (87 + 6 + 5^4) \times (3 \times 2 + 1). \\
5036 &= 9 + 8 + 7 \times (654 + 3 \times 21). \\
5037 &= 98 \times 7 + 6 \times 5 + 4321. \\
5038 &= 98 + 76 \times 5 \times (4 + 3^2 \times 1). \\
5039 &= 9 \times 87 \times 6 + 5 \times 4 + 321. \\
5040 &= (98 + 7) \times (6 + 5 + 4 + 32 + 1). \\
5041 &= 9 \times (8 + 7 + 65) + 4321. \\
5042 &= 9 + (87 + 6 \times 5) \times 43 + 2 \times 1. \\
5043 &= 9 + (87 + 6 \times 5) \times 43 + 2 + 1. \\
5044 &= 9 \times 8 \times 76 + 5 - 432 - 1. \\
5045 &= (9 + (8 + 7 \times 6) \times 5 \times 4) \times (3 + 2) \times 1. \\
5046 &= 9 + 87 \times 6 + 5 \times 43 \times 21. \\
5047 &= 98 + 7 \times (6 + 5) \times 4^3 + 21. \\
5048 &= 9 + (8 + 76) \times 5 \times 4 \times 3 - 2 + 1. \\
5049 &= 9 + 8 \times 7 \times 6 \times (5 + 4 + 3 + 2 + 1). \\
5050 &= (987 + 6) \times 5 + 4^3 + 21. \\
5051 &= (987 + 6) \times 5 + 43 \times 2 \times 1. \\
5052 &= (987 + 6) \times 5 + 43 \times 2 + 1. \\
5053 &= 98 + 7 \times 6 + (5 + 4 \times 3)^2 + 1. \\
5054 &= (9 + 8 + 76) \times 54 + 32 \times 1. \\
5055 &= 9 + (87 + 6) \times 54 + 3 + 21. \\
5056 &= 9 + 87 \times (6 + 5 \times 4 + 32) + 1. \\
5057 &= 9 + 8 + 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
5058 &= 987 + 6 \times 5^4 + 321. \\
5059 &= (9 \times 87 + 6 + 54) \times 3 \times 2 + 1. \\
5060 &= 98 \times 7 + 6 \times ((5 + 4) \times 3)^2 \times 1. \\
5061 &= (9 \times 8 + 76) \times 5 + 4321. \\
5062 &= 98 \times 7 \times 6 + 5^4 + 321. \\
5063 &= 98 \times 7 + 6 \times (5 + 4)^3 + 2 + 1. \\
5064 &= 9 \times (8 + 76) \times 5 + 4 \times 321. \\
5065 &= 9 + 8 \times (76 \times 5 + 4 \times 3 \times 21). \\
5066 &= (987 + 6 + 5 \times 4) \times (3 + 2) + 1. \\
5067 &= 98 \times 7 + 6 + 5^4 \times (3 \times 2 + 1). \\
5068 &= 9 \times (87 \times 6 + 5) + 4 + 321. \\
5069 &= (9 + (8 + 76) \times 5 \times 4) \times 3 + 2 \times 1. \\
5070 &= 9 + (8 + 76) \times 5 \times 4 \times 3 + 21. \\
5071 &= (9 + 8 \times 7) \times (65 + 4 + 3^2) + 1. \\
5072 &= 98 \times 7 + 65 + 4321. \\
5073 &= 9 \times 87 \times 6 + 54 + 321. \\
5074 &= 9 \times 87 + 65 \times (4^3 + 2) + 1. \\
5075 &= (9 + 8 + 7 \times 6 \times 5 \times 4 \times 3) \times 2 + 1. \\
5076 &= 9 \times (87 \times 6 + 5 + 4 + 32 + 1). \\
5077 &= 9 \times 8 + 7 \times 65 \times (4 + 3 \times 2 + 1). \\
5078 &= 98 \times 7 + 6 \times ((5 + 4)^3 + 2 + 1). \\
5079 &= ((9 + 8 \times 7) \times (6 + 5 \times 4) + 3) \times (2 + 1). \\
5080 &= 9 + (8 + 7) \times 65 + 4^{(3+2+1)}. \\
5081 &= 98 \times 7 + 6 \times (5 + 4)^3 + 21. \\
5082 &= 9 \times (8 + 76) + 5 + 4321. \\
5083 &= (9 + 8) \times (7 + 65 \times 4 + 32 \times 1). \\
5084 &= (9 + 8) \times (7 + (65 \times 4 + 32)) + 1. \\
5085 &= (9 + 8 + 76) \times 54 + 3 \times 21. \\
5086 &= 9 \times (87 + 6 + 5 \times 4) \times (3 + 2) + 1. \\
5087 &= 98 + 76 + (5 + 4 \times 3)^2 + 1. \\
5088 &= 9 \times (87 + 6) \times 5 + 43 \times 21. \\
5089 &= 9 + 8 \times (7 + 6 \times 5 \times 4) \times (3 + 2 \times 1). \\
5090 &= 9 + 8 \times (7 + 6 \times 5 \times 4) \times (3 + 2) + 1. \\
5091 &= (9 + 87) \times 6 + 5 \times 43 \times 21. \\
5092 &= (9 + 8 \times 7 + 6 + 5) \times (4 + 3 \times 21). \\
5093 &= (987 + 6) \times 5 + 4 \times 32 \times 1. \\
5094 &= (987 + 6) \times 5 + 4 \times 32 + 1. \\
5095 &= 9 \times (8 \times 7 + 6 \times 5) + 4321. \\
5096 &= 98 \times 7 + 6 \times 5 \times (4 + 3) \times 21. \\
5097 &= (9 + (8 + 7) \times 6 + 5) \times (4 + 3)^2 + 1. \\
5098 &= 98 \times (7 + (6 + 5 + 4) \times 3) + 2 \times 1. \\
5099 &= 9 + 8 + 7 \times 6 \times (5 \times 4 \times 3 \times 2 + 1). \\
5100 &= 9 \times (87 \times 6 + 5 + 4) + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5101 &= 1^2 + 34 \times 5 \times (6 + 7 + 8 + 9). \\
5102 &= 1 \times 2 + 34 \times 5 \times (6 + 7 + 8 + 9). \\
5103 &= 1 + 2 + 34 \times 5 \times (6 + 7 + 8 + 9). \\
5104 &= 1 \times 2^3 \times (4 + 5 + 6 + 7 + 89). \\
5105 &= (1^2 + 34 + 56) \times 7 \times 8 + 9. \\
5106 &= 1 \times 234 + 56 \times (78 + 9). \\
5107 &= 1 + 234 + 56 \times (78 + 9). \\
5108 &= 12^3 + 4 \times (56 + 789). \\
5109 &= 12 \times 3 \times 4 \times 5 \times 6 + 789. \\
5110 &= 1 + (23 + 45) \times (67 + 8) + 9. \\
5111 &= 12 \times 34 \times (5 + 6) + 7 \times 89. \\
5112 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
5113 &= 1 + 2 \times 3 \times 4 \times 5 \times 6 \times 7 + 8 \times 9. \\
5114 &= (1 + 2 + 3 \times 4) \times 5 \times 67 + 89. \\
5115 &= 123 \times (4 + 5 \times 6 + 7) + 8 \times 9. \\
5116 &= 12^3 + 4 + (5 + 6 \times 7) \times 8 \times 9. \\
5117 &= (1 + 23 + 45 \times 6 + 7) \times (8 + 9). \\
5118 &= 1 + (2 + (3 + 4) \times 5 + 6) \times 7 \times (8 + 9). \\
5119 &= 1 + 2 \times 3 \times (4 + 56 \times (7 + 8) + 9). \\
5120 &= 1 \times (2 + 3 + 4) \times 567 + 8 + 9. \\
5121 &= 1 + (2 + 3 + 4) \times 567 + 8 + 9. \\
5122 &= 1 \times 2 + 3^4 \times (56 + 7) + 8 + 9. \\
5123 &= 1 + 2 + 3^4 \times (56 + 7) + 8 + 9. \\
5124 &= (12 + 3) \times 4 \times 5 + 67 \times 8 \times 9. \\
5125 &= 1^2 + (3 + 4) \times (5 \times 6 + 78 \times 9). \\
5126 &= (1 + 2 \times 3)^4 + 5 \times (67 \times 8 + 9). \\
5127 &= 123 + (4 \times 5 + 67 \times 8) \times 9. \\
5128 &= (1^2 + 3)^4 + 56 \times (78 + 9). \\
5129 &= 1 \times 2 \times 3 \times 4 \times 5 \times 6 \times 7 + 89. \\
5130 &= 1 + 2 \times 3 \times 4 \times 5 \times 6 \times 7 + 89. \\
5131 &= 12^3 + 4 + 5 \times 678 + 9. \\
5132 &= 123 \times (4 + 5 \times 6 + 7) + 89. \\
5133 &= 1^2 \times 3 \times (4^5 + 678 + 9). \\
5134 &= 1^2 + 3 \times (4^5 + 678 + 9). \\
5135 &= 1 \times 2 + 3 \times (4^5 + 678 + 9). \\
5136 &= 1 + 2 + 3 \times (4^5 + 678 + 9). \\
5137 &= 1 + 2 \times 3 + 45 \times (6 \times 7 + 8 \times 9). \\
5138 &= 1 \times 2^3 + 45 \times (6 \times 7 + 8 \times 9). \\
5139 &= 1^2 \times 3^4 \times 5 + 6 \times 789. \\
5140 &= 1^2 + 3^4 \times 5 + 6 \times 789. \\
5141 &= 1 \times 2 + 3^4 \times 5 + 6 \times 789. \\
5142 &= 1 + 2 + 3^4 \times 5 + 6 \times 789. \\
5143 &= 1 + 2 \times 3 \times (4 \times 5 \times 6 \times 7 + 8 + 9). \\
5144 &= 1 \times 2^3 \times (4 + 567 + 8 \times 9). \\
5145 &= 12 + 3 + 45 \times (6 \times 7 + 8 \times 9). \\
5146 &= 1^2 + 3 \times (4 + 5 \times 6 \times 7) \times 8 + 9. \\
5147 &= 12 \times 34 + 5 + 6 \times 789. \\
5148 &= 12 \times (345 + 67 + 8 + 9). \\
5149 &= 1 + (2 + 34) \times (56 + 78 + 9). \\
5150 &= 1 + (2 + 3^4) \times 5 + 6 \times 789. \\
5151 &= 12 + 3^4 \times 5 + 6 \times 789. \\
5152 &= 1 \times (2 + 3^4) \times 56 + 7 \times 8 \times 9. \\
5153 &= 1 + (2 + 3^4) \times 56 + 7 \times 8 \times 9. \\
5154 &= 12 \times (3 + 4) \times 5 + 6 \times 789. \\
5155 &= 12 \times 3^4 + (5 + 6 \times 7) \times 89. \\
5156 &= (1 + 2) \times 3 \times (4 + 567) + 8 + 9. \\
5157 &= 12 \times (345 + 6 + 78) + 9. \\
5158 &= 1 + (2 + 34 + 5 \times 6) \times 78 + 9. \\
5159 &= 1^2 \times 3^4 \times 56 + 7 \times 89. \\
5160 &= 1^2 + 3^4 \times 56 + 7 \times 89. \\
5161 &= 1 \times 2 + 3^4 \times 56 + 7 \times 89. \\
5162 &= 1 + 2 + 3^4 \times 56 + 7 \times 89. \\
5163 &= 1^{23} + (45 + 6 + 7) \times 89. \\
5164 &= 1 \times 2 \times 34 \times 5 + 67 \times 8 \times 9. \\
5165 &= 1 + 2 \times 34 \times 5 + 67 \times 8 \times 9. \\
5166 &= 1^2 + 3 + (45 + 6 + 7) \times 89. \\
5167 &= 12^3 + 4 + 5 \times (678 + 9). \\
5168 &= 1^2 \times 34 \times (56 + 7 + 89). \\
5169 &= 1^2 \times 345 + 67 \times 8 \times 9. \\
5170 &= 1^2 + 345 + 67 \times 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5101 &= (9 + 87 + 6) \times 5 \times (4 + 3 \times 2) + 1. \\
5102 &= (9 \times 8 + 7 + 6) \times 5 \times 4 \times 3 + 2 \times 1. \\
5103 &= 9 + 8 + 765 + 4321. \\
5104 &= 9 \times 87 + 6 \times 5 \times (4 \times 3)^2 + 1. \\
5105 &= (987 + 6 \times 5 + 4) \times (3 + 2) \times 1. \\
5106 &= (987 + 6 \times 5 + 4) \times (3 + 2) + 1. \\
5107 &= (98 + 7 + 6) \times (5 \times 4 + 3) \times 2 + 1. \\
5108 &= (9 \times 8 + 7) \times 65 + 4 - 32 + 1. \\
5109 &= (987 + 6) \times 5 + (4 \times 3)^2 \times 1. \\
5110 &= (987 + 6) \times 5 + (4 \times 3)^2 + 1. \\
5111 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 \times 3 \times 2 - 1. \\
5112 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
5113 &= 9 \times 8 + 7 \times 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
5114 &= 987 + 6 \times 5 + 4^{(3 \times 2)} + 1. \\
5115 &= 9 \times 87 + 6 + 5 + 4321. \\
5116 &= -9 \times 8 \times 7 - 6 + 5^4 \times 3^2 + 1. \\
5117 &= 98 + 7 \times (654 + 3 \times 21). \\
5118 &= 9 + 8 \times (7 + 6 + 5^4) + 3 + 2 \times 1. \\
5119 &= (9 \times 8 + 7 \times 6 + 5) \times 43 + 2 \times 1. \\
5120 &= (98 + 7 \times 6 + 5 \times 4) \times 32 \times 1. \\
5121 &= (9 \times 8 + 7 + 6) \times 5 \times 4 \times 3 + 21. \\
5122 &= 9 \times (8 + 76 + 5) + 4321. \\
5123 &= 9 \times 87 \times 6 + 5 \times (4^3 + 21). \\
5124 &= 9 \times (8 + 76) \times 5 + 4^3 \times 21. \\
5125 &= (98 \times (7 + 6) + 5) \times 4 + 3^2 \times 1. \\
5126 &= (98 \times (7 + 6) + 5) \times 4 + 3^2 + 1. \\
5127 &= 9 \times 87 \times 6 + 5 \times 43 \times 2 - 1. \\
5128 &= 9 \times 87 \times 6 + 5 \times 43 \times 2 \times 1. \\
5129 &= 9 \times 87 \times 6 + 5 \times 43 \times 2 + 1. \\
5130 &= 9 \times 87 + (65 + 4) \times 3 \times 21. \\
5131 &= 9 + (8 + 7 + 65) \times 4^3 + 2 \times 1. \\
5132 &= 9 + 8 \times 76 + 5 \times 43 \times 21. \\
5133 &= 9 \times 87 \times 6 + 5 \times (43 \times 2 + 1). \\
5134 &= 9 \times 87 + 6 \times 5 + 4321. \\
5135 &= 9 \times 87 \times 6 + 5 + 432 \times 1. \\
5136 &= 9 \times 87 \times 6 + 5 + 432 + 1. \\
5137 &= 9 + 8 \times (7 + 6 + 5^4) + 3 + 21. \\
5138 &= 98 + 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1. \\
5139 &= 98 + 7 \times 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
5140 &= (98 \times (7 + 6) + 5) \times 4 + 3 + 21. \\
5141 &= 9 + (8 + 7) \times 6 \times (54 + 3) + 2 \times 1. \\
5142 &= 9 + 87 \times (6 + 5 \times 4 + 32 + 1). \\
5143 &= (9 + 8 + 7 \times 6 \times 5 \times 4) \times 3 \times 2 + 1. \\
5144 &= (9 \times 8 + 7) \times 65 + 4 + 3 + 2 \times 1. \\
5145 &= 9 \times 8 \times (7 + 6 + 54) + 321. \\
5146 &= (9 \times 8 + 7) \times 65 + 4 + 3 \times 2 + 1. \\
5147 &= 987 + 65 \times (43 + 21). \\
5148 &= 987 + 65 + 4^{(3+2+1)}. \\
5149 &= 987 + 65 \times 4^3 + 2 \times 1. \\
5150 &= 987 + 65 \times 4^3 + 2 + 1. \\
5151 &= 9 + 8 + 7 + 6 + 5 \times 4(3 + 2) + 1. \\
5152 &= (98 + 7 + 6 + 5^4) \times (3 \times 2 + 1). \\
5153 &= 9 + 8 \times (7 \times 6 \times 5 + 432 + 1). \\
5154 &= 9 + (8 + 7 + 6) \times 5 \times (4 + 3)^2 \times 1. \\
5155 &= 9 + (8 \times 7 + 6) \times (5 \times 4 + 3 \times 21). \\
5156 &= (9 \times 8 + 7) \times 65 + 4 \times (3 + 2) + 1. \\
5157 &= 9 \times (87 \times 6 + 5 + 43 + 2 + 1). \\
5158 &= 9 \times 8 + 765 + 4321. \\
5159 &= (9 \times 8 + 7) \times 65 + 4 \times 3 \times 2 \times 1. \\
5160 &= 9 \times 87 + 6 \times (5 + 4)^3 + 2 + 1. \\
5161 &= 9 + 8 \times 7 \times (6 + 54 + 32) \times 1. \\
5162 &= 9 + 8 \times 7 \times (6 + 54 + 32) + 1. \\
5163 &= 9 \times (87 + 6) + 5 + 4321. \\
5164 &= 9 \times 87 + 6 + 5^4 \times (3 \times 2 + 1). \\
5165 &= 9 + 8 + 7 \times (6 + (5 + 4)^3) + 2 + 1. \\
5166 &= 9 + 8 \times (7 \times 6 \times 5 + 4) \times 3 + 21. \\
5167 &= ((9 \times 8 + 7 \times 6) \times 5 + 4) \times 3^2 + 1. \\
5168 &= 987 + 65 \times 4^3 + 21. \\
5169 &= 9 \times 87 + 65 + 4321. \\
5170 &= 9 \times 87 + 6 \times ((5 + 4)^3 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5171 &= 12 + 3^4 \times 56 + 7 \times 89. \\
5172 &= 12 \times (3 + 4 + 5 \times 67 + 89). \\
5173 &= 12 + (3^4 + 5 + 6) \times 7 \times 8 + 9. \\
5174 &= (12 + 3) \times (4 + 5 \times 67) + 89. \\
5175 &= (1 \times 2 + 3 + 4) \times 567 + 8 \times 9. \\
5176 &= 1 \times 23 \times 4 \times 56 + 7 + 8 + 9. \\
5177 &= 1 + 23 \times 4 \times 56 + 7 + 8 + 9. \\
5178 &= 1 + 2 + 3^4 \times (56 + 7) + 8 \times 9. \\
5179 &= 1^{23} \times 4 + (567 + 8) \times 9. \\
5180 &= 12 + 34 \times (56 + 7 + 89). \\
5181 &= 12 + 345 + 67 \times 8 \times 9. \\
5182 &= 1^2 \times 3 + 4 + (567 + 8) \times 9. \\
5183 &= 1^2 + 3 + 4 + (567 + 8) \times 9. \\
5184 &= 1 \times 2^3 \times 45 + 67 \times 8 \times 9. \\
5185 &= 1 + 2^3 \times 45 + 67 \times 8 \times 9. \\
5186 &= 1 + 23 + (45 + 6 + 7) \times 89. \\
5187 &= 12 + 3^4 \times (56 + 7) + 8 \times 9. \\
5188 &= 1^2 + 3 \times 4 + (567 + 8) \times 9. \\
5189 &= 12 \times 3^4 + 5 + 6 \times 78 \times 9. \\
5190 &= 12 \times 34 \times (5 + 6) + 78 \times 9. \\
5191 &= 1^2 \times 3 + 4 + (5 + 67) \times 8 \times 9. \\
5192 &= 1^2 \times 3^4 \times (56 + 7) + 89. \\
5193 &= 1 + (2 + 3 + 4) \times 567 + 89. \\
5194 &= 1 \times 23 \times 4 \times 5 + 6 \times 789. \\
5195 &= 1 + 23 \times 4 \times 5 + 6 \times 789. \\
5196 &= 12 \times (3^4 + 5 \times 67 + 8 + 9). \\
5197 &= 1 + 2^3 + 4 + (5 + 67) \times 8 \times 9. \\
5198 &= 12 \times 3 + 4 + (45 + 6 + 7) \times 89. \\
5199 &= (12 + 3^4) \times 5 + 6 \times 789. \\
5200 &= 1 + 2 \times 3 \times 4 + (567 + 8) \times 9. \\
5201 &= 12 \times (34 + 56 \times 7) + 89. \\
5202 &= 12 \times (34 + 5) + 6 \times 789. \\
5203 &= 1 + 23 + 4 + (567 + 8) \times 9. \\
5204 &= 12 + 3^4 \times (56 + 7) + 89. \\
5205 &= 12 \times 3^4 \times 5 + 6 \times 7 \times 8 + 9. \\
5206 &= (1 + 2)^3 + 4 + (567 + 8) \times 9. \\
5207 &= 1 \times 23 + 4 \times (5 + 6 + 7) \times 8 \times 9. \\
5208 &= 1 + 2^3 \times 4 + (567 + 8) \times 9. \\
5209 &= 1234 + 5 \times (6 + 789). \\
5210 &= 1^2 + 34 + (567 + 8) \times 9. \\
5211 &= 1 \times 23 + 4 + (5 + 67) \times 8 \times 9. \\
5212 &= 1 + 2 + 34 + (567 + 8) \times 9. \\
5213 &= 1 + 2 \times (34 + 56 + 78 \times 9). \\
5214 &= (1 + 23) \times 4 \times 5 + 6 \times 789. \\
5215 &= 1^2 + 3 + 4 + (567 + 8) \times 9. \\
5216 &= 1 \times 2 + 3 + (4 + 567 + 8) \times 9. \\
5217 &= 1 \times 23 \times 4 \times 56 + 7 \times 8 + 9. \\
5218 &= 1 + 23 \times 4 \times 56 + 7 \times 8 + 9. \\
5219 &= 1 \times 2^3 + (4 + 567 + 8) \times 9. \\
5220 &= 12 \times 3 + 4 \times (5 + 6 + 7) \times 8 \times 9. \\
5221 &= 12 + 34 + (567 + 8) \times 9. \\
5222 &= 1 \times (2 + 3) \times 4^5 + 6 + 7 + 89. \\
5223 &= 1 + (2 + 3) \times 4^5 + 6 + 7 + 89. \\
5224 &= 12 \times 3 + 4 + (5 + 67) \times 8 \times 9. \\
5225 &= 1 \times 2 + 3 + (4 + 56) \times (78 + 9). \\
5226 &= 12 + 3 + (4 + 567 + 8) \times 9. \\
5227 &= 1 + 2 \times 3 + (4 + 56) \times (78 + 9). \\
5228 &= (1 + 2) \times 3 \times (4 + 567) + 89. \\
5229 &= 1^2 \times 3^4 \times 5 + 67 \times 8 \times 9. \\
5230 &= 1^2 + 3^4 \times 5 + 67 \times 8 \times 9. \\
5231 &= 123 \times 4 + 5 + 6 \times 789. \\
5232 &= 1 + 23 \times 4 \times 56 + 7 + 8 \times 9. \\
5233 &= 1^2 + 3 + 4 + (45 + 67 \times 8) \times 9. \\
5234 &= 1 \times 23 + (4 + 567 + 8) \times 9. \\
5235 &= 1 + 23 + (4 + 567 + 8) \times 9. \\
5236 &= 1^{23} \times 4^5 + 6 \times 78 \times 9. \\
5237 &= 1^{23} + 4^5 + 6 \times 78 \times 9. \\
5238 &= 1^2 \times 3^4 \times 56 + 78 \times 9. \\
5239 &= 1 \times 23 \times 4 \times 56 + 78 + 9. \\
5240 &= 1 + 23 \times 4 \times 56 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5171 &= (9 \times 8 + 7) \times 65 + 4 + 32 \times 1. \\
5172 &= (9 \times 8 + 7) \times 65 + 4 + 32 + 1. \\
5173 &= (9 \times 8 + 7 \times 6 + 5^4) \times (3 \times 2 + 1). \\
5174 &= 98 + (7 \times 6 + 5) \times 4 \times 3^{(2+1)}. \\
5175 &= 9 + (8 + 76 + 54 \times 3) \times 21. \\
5176 &= 9 \times (87 \times 6 + 5) + 432 + 1. \\
5177 &= 9 + 8 + 7 \times (6 + (5 + 4)^3 + 2) + 1. \\
5178 &= 9 \times 87 + 6 \times (5 + 4)^3 + 21. \\
5179 &= 9 + 8 + 7 \times 6 + 5 \times 4(3 + 2) \times 1. \\
5180 &= (9 \times 8 + 7) \times 65 + 43 + 2 \times 1. \\
5181 &= (9 \times 8 + 7) \times 65 + 43 + 2 + 1. \\
5182 &= (9 \times 8 + 76) \times 5 \times (4 + 3) + 2 \times 1. \\
5183 &= (9 \times 8 + 76) \times 5 \times (4 + 3) + 2 + 1. \\
5184 &= 98 + 765 + 4321. \\
5185 &= 9 \times 87 \times 6 + 54 \times 3^2 + 1. \\
5186 &= (9 + 87) \times (6 + 5 + 43) + 2 \times 1. \\
5187 &= (9 \times 8 + 7 + 6 + 54 \times 3) \times 21. \\
5188 &= (98 \times 7 + 6) \times 5 + (4 \times 3)^{(2+1)}. \\
5189 &= 9 \times (87 \times 6 + 54) + 3 + 2 \times 1. \\
5190 &= 9 + (8 + 7) \times 6 \times 54 + 321. \\
5191 &= (98 + 76) \times 5 + 4321. \\
5192 &= 9 + 8 \times 7 + 6 + 5 \times 4(3 + 2) + 1. \\
5193 &= 9 \times (87 \times 6 + 54) + 3^2 \times 1. \\
5194 &= 9 \times (87 \times 6 + 54) + 3^2 + 1. \\
5195 &= 9 \times 8 \times (7 + 65) + 4 + 3 \times 2 + 1. \\
5196 &= (9 + 8 \times 7 \times 6 \times 5 + 43) \times (2 + 1). \\
5197 &= 9 \times 8 \times (7 + 65) + 4 + 3^2 \times 1. \\
5198 &= 9 \times 8 \times (7 + 65) + 4 + 3^2 + 1. \\
5199 &= (9 \times 8 + 7) \times 65 + 43 + 21. \\
5200 &= (9 + 8 \times 7) \times (65 + 4 \times 3 + 2 + 1). \\
5201 &= (9 \times 8 + 76) \times 5 \times (4 + 3) + 21. \\
5202 &= 98 \times 7 \times 6 + 543 \times 2 \times 1. \\
5203 &= 98 \times 7 \times 6 + 543 \times 2 + 1. \\
5204 &= 9 + 8 + (76 + 5) \times 4^3 + 2 + 1. \\
5205 &= 9 \times 8 \times (7 + 65) + 4 \times (3 + 2) + 1. \\
5206 &= 9 \times 8 + 7 + 6 + 5 \times 4(3 + 2) + 1. \\
5207 &= 98 \times 7 + 6 + 5 \times 43 \times 21. \\
5208 &= 9 \times (87 \times 6 + 54) + 3 + 21. \\
5209 &= 9 + 8 + 7 + (65 + 4 + 3)^2 + 1. \\
5210 &= 9 + 8 \times (76 + 54) \times (3 + 2) + 1. \\
5211 &= 9 + 876 + 5 + 4321. \\
5212 &= 9 \times 8 \times (7 + 65) + 4 + 3 + 21. \\
5213 &= 9 + 8 + 76 + 5 \times 4(3 + 2) \times 1. \\
5214 &= 9 + 8 + 76 + 5 \times 4(3 + 2) + 1. \\
5215 &= 9 + (8 \times 7 + 65) \times 43 + 2 + 1. \\
5216 &= 9 \times (87 \times 6 + 54) + 32 \times 1. \\
5217 &= (987 + 6) \times 5 + 4 \times 3 \times 21. \\
5218 &= 9 + 8 + 76 + 5 \times (4(3 + 2) + 1). \\
5219 &= 9 + (8 + 7) \times 6 + 5 \times 4(3 + 2) \times 1. \\
5220 &= 9 \times (87 + 6 + 54 \times 3^2 + 1). \\
5221 &= 9 \times 8 \times (7 + 65) + 4 + 32 + 1. \\
5222 &= 9 + 8 + (76 + 5) \times 4^3 + 21. \\
5223 &= 9 + 87 + 6 + 5 \times 4(3 + 2) + 1. \\
5224 &= 9 \times 8 \times (7 + 65) + 4 \times (3^2 + 1). \\
5225 &= 9 + 8 \times (7 + 6 \times 54 + 321). \\
5226 &= 9 \times (8 \times (7 + 65) + 4) + 3 \times 2 \times 1. \\
5227 &= 9 \times 87 \times 6 + (5 \times 4 + 3)^2 \times 1. \\
5228 &= 9 \times 87 \times 6 + (5 \times 4 + 3)^2 + 1. \\
5229 &= (9 \times 87 + 6) \times 5 + 4 \times 321. \\
5230 &= 9 \times (87 \times 6 + 54 + 3 + 2) + 1. \\
5231 &= 98 + 7 + 6 + 5 \times 4(3 + 2) \times 1. \\
5232 &= 98 + 7 + 6 + 5 \times 4(3 + 2) + 1. \\
5233 &= 9 + (8 \times 7 + 65) \times 43 + 21. \\
5234 &= 9 + 87 \times (6 + 54) + 3 + 2 \times 1. \\
5235 &= 9 + 87 \times (6 + 54) + 3 + 2 + 1. \\
5236 &= 9 + 87 \times (6 + 54) + 3 \times 2 + 1. \\
5237 &= (98 + 7 \times 6 \times 5 \times 4 \times 3) \times 2 + 1. \\
5238 &= 9 \times (87 \times 6 + 54 + 3 + 2 + 1). \\
5239 &= 9 + 87 \times (6 + 54) + 3^2 + 1. \\
5240 &= 9 \times (87 \times 6 + 5 \times 4 \times 3) + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5241 &= 12 + 3^4 \times 5 + 67 \times 8 \times 9. \\
5242 &= 1 + 2 + 3 + 4^5 + 6 \times 78 \times 9. \\
5243 &= 1 + 2 \times 3 + 4^5 + 6 \times 78 \times 9. \\
5244 &= 12 \times (3 + 4) \times 5 + 67 \times 8 \times 9. \\
5245 &= 1 + 2^3 + 4^5 + 6 \times 78 \times 9. \\
5246 &= 1 + (2 + 3) \times 4^5 + 6 + 7 \times (8 + 9). \\
5247 &= 1 \times 23 \times 45 + 6 \times 78 \times 9. \\
5248 &= 1 + 23 \times 45 + 6 \times 78 \times 9. \\
5249 &= 1 + 23 \times 4 \times 56 + 7 + 89. \\
5250 &= 12 + 3^4 \times 56 + 78 \times 9. \\
5251 &= 12 + 3 + 4^5 + 6 \times 78 \times 9. \\
5252 &= 1 \times 23 + (45 + 67 \times 8) \times 9. \\
5253 &= 123 + 45 \times (6 \times 7 + 8 \times 9). \\
5254 &= 1 + 2 \times 34 \times (5 + 6) \times 7 + 8 + 9. \\
5255 &= (1^2 + 3^4) \times (56 + 7) + 89. \\
5256 &= 12 \times (345 + 6 + 78 + 9). \\
5257 &= 1 + 2^3 \times (4 + 5 \times 6 + 7 \times 89). \\
5258 &= 1 \times 2 + 3^4 + (567 + 8) \times 9. \\
5259 &= 1 \times 23 + 4^5 + 6 \times 78 \times 9. \\
5260 &= 1 + 23 + 4^5 + 6 \times 78 \times 9. \\
5261 &= 1 \times (2 + 3) \times 4^5 + 6 + (7 + 8) \times 9. \\
5262 &= 1 + (2 + 3) \times 4^5 + 6 + (7 + 8) \times 9. \\
5263 &= (1 + 2)^3 + 4^5 + 6 \times 78 \times 9. \\
5264 &= (1 \times 2 + 3) \times 4^5 + 6 \times (7 + 8 + 9). \\
5265 &= (1 + 2 + 3 + 4 + 567 + 8) \times 9. \\
5266 &= 1^2 + 3^4 + (5 + 67) \times 8 \times 9. \\
5267 &= 1 \times 23 \times 4 + (567 + 8) \times 9. \\
5268 &= 12 + 3^4 + (567 + 8) \times 9. \\
5269 &= 1 \times (2 + 3) \times (4^5 + 6) + 7 \times (8 + 9). \\
5270 &= (1 \times 2 + 3 \times 4 \times 5) \times (6 + 7 + 8 \times 9). \\
5271 &= 1 \times 23 \times 4 \times 56 + 7 \times (8 + 9). \\
5272 &= 12 \times 3 + 4^5 + 6 \times 78 \times 9. \\
5273 &= (12 + 3^4) \times 56 + 7 \times 8 + 9. \\
5274 &= (1 + 2)^3 \times 4 \times 5 + 6 \times 789. \\
5275 &= 1^2 + (345 + 6) \times (7 + 8) + 9. \\
5276 &= 1 \times (2 + 3) \times 4^5 + 67 + 89. \\
5277 &= 12 \times 34 \times (5 + 6) + 789. \\
5278 &= 12 + 3^4 \times 5 \times (6 + 7) - 8 + 9. \\
5279 &= 12 \times 345 + 67 \times (8 + 9). \\
5280 &= 12 \times 34 + 56 \times (78 + 9). \\
5281 &= (1 \times 23 \times 4 + 567) \times 8 + 9. \\
5282 &= 1^2 \times 3^4 \times 5 \times (6 + 7) + 8 + 9. \\
5283 &= 1^2 \times (3 \times 4 + 567 + 8) \times 9. \\
5284 &= 1 \times 23 \times 4 \times 5 + 67 \times 8 \times 9. \\
5285 &= 1 + 23 \times 4 \times 5 + 67 \times 8 \times 9. \\
5286 &= 12 + (345 + 6) \times (7 + 8) + 9. \\
5287 &= 1 \times 23 \times 4 \times 56 + (7 + 8) \times 9. \\
5288 &= 1 + 23 \times 4 \times 56 + (7 + 8) \times 9. \\
5289 &= (1 + 23 \times 4) \times 5 + 67 \times 8 \times 9. \\
5290 &= 1 + 2 \times (34 \times 5 + 6) \times (7 + 8) + 9. \\
5291 &= (1 + 2 + 34) \times (56 + 78 + 9). \\
5292 &= 12 \times 3 \times (45 + 6 + 7 + 89). \\
5293 &= (1 + 2 + 34 + 5 \times 6) \times (7 + 8 \times 9). \\
5294 &= (1^2 + 3^4) \times 56 + 78 \times 9. \\
5295 &= (12 + 3^4) \times 56 + 78 + 9. \\
5296 &= 1 + (2 + 3) \times (45 \times 6 + 789). \\
5297 &= 12 \times 345 + (6 + 7) \times 89. \\
5298 &= 1 \times 2 \times (34 + 5) \times 67 + 8 \times 9. \\
5299 &= 1 + 2 \times (34 + 5) \times 67 + 8 \times 9. \\
5300 &= (1 \times 2 + 3) \times (4 + (5 + 6) \times (7 + 89)). \\
5301 &= (1 \times 2 + 3 \times 4 + 567 + 8) \times 9. \\
5302 &= 123 + 4 + (567 + 8) \times 9. \\
5303 &= 1 + 2^{(3 \times 4)} + (56 + 78) \times 9. \\
5304 &= (12 + 3^4) \times 56 + 7 + 89. \\
5305 &= 1 + 2 \times (3 \times 4 + 5) \times (67 + 89). \\
5306 &= 1^2 \times (3 + 4) \times (56 + 78 \times 9). \\
5307 &= 123 + 4 \times (5 + 6 + 7) \times 8 \times 9. \\
5308 &= 1 \times 2 \times 34 \times (5 + 6) \times 7 + 8 \times 9. \\
5309 &= 12 \times (3 + 4 + 56) \times 7 + 8 + 9. \\
5310 &= 12 \times (3 + 45) + 6 \times 789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5241 &= 9 + 8 \times (7 + 6 + 5 \times 4 \times 32 + 1). \\
5242 &= 9 + (8 + 7 \times 6 \times 5) \times 4 \times 3 \times 2 + 1. \\
5243 &= 9 \times 87 \times 6 + 543 + 2 \times 1. \\
5244 &= 9 \times 87 \times 6 + 543 + 2 + 1. \\
5245 &= (9 + 8) \times 7 \times (6 + 5) \times 4 + 3^2 \times 1. \\
5246 &= (9 + 8) \times 7 \times (6 + 5) \times 4 + 3^2 + 1. \\
5247 &= 9 \times (87 \times 6 + 54) + 3 \times 21. \\
5248 &= 9 \times 8 \times (7 + 65) + 43 + 21. \\
5249 &= 9 + 8 \times 7 + (65 + 4 + 3)^2 \times 1. \\
5250 &= (9 + 87 + 654) \times (3 \times 2 + 1). \\
5251 &= (9 \times 8) \times (7 + 65) + 4 + 3 \times 21. \\
5252 &= 9 \times (8 \times (7 + 65) + 4) + 32 \times 1. \\
5253 &= 9 + 87 \times (6 + 54) + 3 + 21. \\
5254 &= 9 + (87 \times 6 \times 5 + 4 \times 3) \times 2 + 1. \\
5255 &= 9 \times 8 \times 76 - 5 \times 43 - 2 \times 1. \\
5256 &= 9 \times (87 + 65 + 432 \times 1). \\
5257 &= 9 \times 8 \times 7 + (6 + 5) \times 432 + 1. \\
5258 &= 9 \times 8 + (76 + 5) \times 4^3 + 2 \times 1. \\
5259 &= 9 \times 8 + (76 + 5) \times 4^3 + 2 + 1. \\
5260 &= 98 + 7 \times 6 + 5 \times 4(3 + 2) \times 1. \\
5261 &= 9 + 87 \times (6 + 54) + 32 \times 1. \\
5262 &= 9 \times 87 \times 6 + 543 + 21. \\
5263 &= (9 \times 8 + 7) \times 65 + 4^3 \times 2 \times 1. \\
5264 &= 98 \times 7 + 654 \times (3 \times 2 + 1). \\
5265 &= 9 \times (87 + 65 + 432 + 1). \\
5266 &= (9 + 87 \times 6 + 54) \times 3^2 + 1. \\
5267 &= 9 + 8 + 7 \times 6 \times 5 \times (4 \times 3 \times 2 + 1). \\
5268 &= 9 \times 8 + 76 + 5 \times 4(3 + 2) \times 1. \\
5269 &= 9 \times 8 \times (7 + 65) + 4^3 + 21. \\
5270 &= 9 \times 8 \times (7 + 65) + 43 \times 2 \times 1. \\
5271 &= 9 \times (8 + 76) + 5 \times 43 \times 21. \\
5272 &= 9 \times 8 \times 7 + 6 + (5 + 4^3)^2 + 1. \\
5273 &= 9 + 8 \times 7 \times (6 \times 5 + 43 + 21). \\
5274 &= 9 \times (87 \times 6 + 54 + 3^2 + 1). \\
5275 &= 9 + 8 \times 7 \times (6 \times 5 + 4^3) + 2 \times 1. \\
5276 &= 9 + 8 \times 7 \times (6 \times 5 + 4^3) + 2 + 1. \\
5277 &= 9 \times 8 + (76 + 5) \times 4^3 + 21. \\
5278 &= 987 + 65 \times (4^3 + 2) + 1. \\
5279 &= 9 + (87 \times 6 + 5) \times (4 + 3 + 2 + 1). \\
5280 &= (9 + 87 + 65 + 4) \times 32 \times 1. \\
5281 &= (9 + 87 + 65 + 4) \times 32 + 1. \\
5282 &= 9 + 8 + 76 \times (5 + 4^3) + 21. \\
5283 &= 9 \times (8 \times (7 + 65) + 4) + 3 \times 21. \\
5284 &= 98 + (76 + 5) \times 4^3 + 2 \times 1. \\
5285 &= 98 + (76 + 5) \times 4^3 + 2 + 1. \\
5286 &= (9 + (8 + 7 \times 6 \times 5) \times 4) \times 3 \times 2 \times 1. \\
5287 &= 9 + 87 \times (6 + 5) + 4321. \\
5288 &= 98 \times 76 - 5 \times 432 \times 1. \\
5289 &= (9 \times 87 + 6) \times 5 + 4^3 \times 21. \\
5290 &= (987 + 6) \times 5 + 4 + 321. \\
5291 &= (9 + 8 \times (7 + 6) \times 5) \times (4 + 3 \times 2) + 1. \\
5292 &= 9 + 876 \times 5 + 43 \times 21. \\
5293 &= 9 + 87 \times 6 + (5 + 4^3)^2 + 1. \\
5294 &= 9 + 8 \times 7 \times (6 \times 5 + 4^3) + 21. \\
5295 &= 98 + 76 + 5 \times 4(3 + 2) + 1. \\
5296 &= (98 \times 7 + 654 \times 3) \times 2 \times 1. \\
5297 &= (98 \times 7 + 654 \times 3) \times 2 + 1. \\
5298 &= (9 + 8) \times 7 \times 6 \times 5 + (4 \times 3)^{(2+1)}. \\
5299 &= (9 + 8) \times 7 \times (6 + 5) \times 4 + 3 \times 21. \\
5300 &= (9 \times 8 \times 7 + 6 + 5 \times 4) \times (3^2 + 1). \\
5301 &= 9 + (8 + 7 + 65 + 4) \times 3 \times 21. \\
5302 &= 9 + 8 \times (7 + 654) + 3 + 2 \times 1. \\
5303 &= 98 + (76 + 5) \times 4^3 + 21. \\
5304 &= 9 \times 87 + 6 + 5 \times 43 \times 21. \\
5305 &= 9 + (8 + 7) \times 65 + 4321. \\
5306 &= 9 + 8 \times (7 + 654) + 3^2 \times 1. \\
5307 &= 987 + 6 \times 5 \times (4 \times 3)^2 \times 1. \\
5308 &= 987 + 6 \times 5 \times (4 \times 3)^2 + 1. \\
5309 &= (98 \times 7 + 6) \times 5 + 43^2 \times 1. \\
5310 &= (98 \times 7 + 6) \times 5 + 43^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5311 &= 123 + 4 + (5 + 67) \times 8 \times 9. \\
5312 &= 1 \times 2^{(3+4)} + (5 + 67) \times 8 \times 9. \\
5313 &= 1^2 \times (3 \times 4 + 56) \times 78 + 9. \\
5314 &= 1 + 23 \times (4 + 5 \times 6 \times 7 + 8 + 9). \\
5315 &= 1 \times 2 \times (34 + 5) \times 67 + 89. \\
5316 &= 12 \times (34 + 56 \times 7 + 8 + 9). \\
5317 &= (1 + 2^3 + 4) \times (56 \times 7 + 8 + 9). \\
5318 &= 12 + (3 + 4) \times (56 + 78 \times 9). \\
5319 &= 123 \times (4 + 5) + 6 \times 78 \times 9. \\
5320 &= (1^2 + 34) \times (56 + 7 + 89). \\
5321 &= 123 \times 4 + 5 + 67 \times 8 \times 9. \\
5322 &= (1 + 2 \times 3 \times 4) \times 5 \times 6 \times 7 + 8 \times 9. \\
5323 &= -1 \times 2 + 3^4 \times 56 + 789. \\
5324 &= 1 - 2 + 3^4 \times 56 + 789. \\
5325 &= 1^2 \times 3^4 \times 56 + 789. \\
5326 &= 1^2 + 3^4 \times 56 + 789. \\
5327 &= 1 \times 2 + 3^4 \times 56 + 789. \\
5328 &= 1 + 2 + 3^4 \times 56 + 789. \\
5329 &= 1 + (2^3 \times 4 + 5) \times 6 \times (7 + 8 + 9). \\
5330 &= 1 \times 23 \times (4 \times 56 + 7) + 8 + 9. \\
5331 &= 1 + 23 \times (4 \times 56 + 7) + 8 + 9. \\
5332 &= 12^3 + 4 + (56 \times 7 + 8) \times 9. \\
5333 &= 1 - 23 + 4^5 \times 6 - 789. \\
5334 &= 123 + (4 + 567 + 8) \times 9. \\
5335 &= 1 + 2 \times (3 + (4 \times (5 + 67) + 8) \times 9). \\
5336 &= 1 \times 2^3 \times (4 \times (5 + 6) + 7 \times 89). \\
5337 &= 12 + 3^4 \times 56 + 789. \\
5338 &= 1 + 2 \times 3^4 + (567 + 8) \times 9. \\
5339 &= 1 \times 2 + 3^4 \times 5 \times (6 + 7) + 8 \times 9. \\
5340 &= (1 + 2^3 + 4 + 5 + 6 \times 7) \times 89. \\
5341 &= 1 \times (2 + 3) \times 4^5 + (6 + 7) \times (8 + 9). \\
5342 &= 1 \times 2 + 3 + (45 \times (6 + 7) + 8) \times 9. \\
5343 &= (12 + 3^4) \times 56 + (7 + 8) \times 9. \\
5344 &= 1 + 2 + (3^4 + 5) \times (6 + 7 \times 8) + 9. \\
5345 &= 12 \times 3 \times 4 \times (5 \times 6 + 7) + 8 + 9. \\
5346 &= (123 + 456 + 7 + 8) \times 9. \\
5347 &= 1 + 2 \times 3^4 + (5 + 67) \times 8 \times 9. \\
5348 &= 1 \times 2 + 3 \times (4 \times 5 \times 6 + 78) \times 9. \\
5349 &= 12 \times 3^4 + 56 \times 78 + 9. \\
5350 &= (1 \times 2 + 3^4) \times 56 + 78 \times 9. \\
5351 &= 1 + (2 + 3^4) \times 56 + 78 \times 9. \\
5352 &= 123 + (45 + 67 \times 8) \times 9. \\
5353 &= 12 + (3^4 + 5) \times (6 + 7 \times 8) + 9. \\
5354 &= 1^2 \times 3^4 \times 5 \times (6 + 7) + 89. \\
5355 &= 1^2 + 3^4 \times 5 \times (6 + 7) + 89. \\
5356 &= 1^2 + (34 + 5 + 6) \times 7 \times (8 + 9). \\
5357 &= 1 + 2 + 3^4 \times 5 \times (6 + 7) + 89. \\
5358 &= 12 \times 3 \times 45 + 6 \times 7 \times 89. \\
5359 &= 123 + 4^5 + 6 \times 78 \times 9. \\
5360 &= 1 \times 23 + (45 \times (6 + 7) + 8) \times 9. \\
5361 &= 123 \times 4 + (5 + 67 \times 8) \times 9. \\
5362 &= 1 + 2 \times 3 \times 4^5 + 6 - 789. \\
5363 &= (1 \times 2 + 3^4 \times 5) \times (6 + 7) + 8 \times 9. \\
5364 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 7 \times 8 \times 9. \\
5365 &= 1 + 2 \times 3^4 \times 5 \times 6 + 7 \times 8 \times 9. \\
5366 &= 12 + 3^4 \times 5 \times (6 + 7) + 89. \\
5367 &= 12 + (34 + 5 + 6) \times 7 \times (8 + 9). \\
5368 &= -1 + 2345 + 6 \times 7 \times 8 \times 9. \\
5369 &= 1 \times 2345 + 6 \times 7 \times 8 \times 9. \\
5370 &= 1 + 2345 + 6 \times 7 \times 8 \times 9. \\
5371 &= (1 \times 2 + 34 + 5) \times (6 \times 7 + 89). \\
5372 &= 12^3 + 4 + 56 \times (7 \times 8 + 9). \\
5373 &= 12 \times 3 + (45 \times (6 + 7) + 8) \times 9. \\
5374 &= 1 \times 2^{(3+4)} \times 5 + 6 \times 789. \\
5375 &= 1 + 2^{(3+4)} \times 5 + 6 \times 789. \\
5376 &= 12 \times (3 + 4) \times (5 + 6 \times 7 + 8 + 9). \\
5377 &= 1 + (2 + 3 + 45 + 6) \times (7 + 89). \\
5378 &= 1 \times 2 \times (3 + (4 + 5 \times 6) \times (7 + 8 \times 9)). \\
5379 &= 1^2 \times 3 + 4 \times 56 \times (7 + 8 + 9). \\
5380 &= 1^{23} \times 4 + 56 \times (7 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5311 &= 9 \times 8 \times (7 + 6) + 5^4 \times (3 \times 2 + 1). \\
5312 &= 9 \times 8 \times (7 + 65) + 4 \times 32 \times 1. \\
5313 &= 98 \times 7 \times 6 + (54 + 3) \times 21. \\
5314 &= 9 \times (8 + 7 + 6) + 5 \times (4^3 + 2) + 1). \\
5315 &= 9 + (87 \times 6 \times 5 + 43) \times 2 \times 1. \\
5316 &= 9 \times 8 + 76 \times (5 + 43 + 21). \\
5317 &= (9 \times (87 + 6 + 5) + 4) \times 3 \times 2 + 1. \\
5318 &= 9 \times 8 + 76 \times (5 + 4^3) + 2 \times 1. \\
5319 &= 987 + 6 + 5 + 4321. \\
5320 &= 9 + (876 + 5 + 4) \times 3 \times 2 + 1. \\
5321 &= 9 + 8 \times (7 + 654) + 3 + 21. \\
5322 &= 9 \times 8 + 7 \times 6 \times 5 \times (4 \times 3 \times 2 + 1). \\
5323 &= 9 + 8 \times (7 + 654 + 3) + 2 \times 1. \\
5324 &= (9 + 87 \times 6 \times 5 + 43) \times 2 \times 1. \\
5325 &= 9 \times (8 + 7) \times 6 + 5 \times 43 \times 21. \\
5326 &= 9 + 87 \times (65 - 4) + 3^2 + 1. \\
5327 &= 98 \times 7 + (6 + 5 \times 43) \times 21. \\
5328 &= 9 \times 87 \times 6 + 5^4 + 3 + 2 \times 1. \\
5329 &= 9 \times 87 \times 6 + 5^4 + 3 + 2 + 1. \\
5330 &= 9 \times 87 \times 6 + 5^4 + 3 \times 2 + 1. \\
5331 &= 9 + (87 + 6) \times (54 + 3) + 21. \\
5332 &= 9 \times 87 \times 6 + 5^4 + 3^2 \times 1. \\
5333 &= 9 \times 87 \times 6 + 5^4 + 3^2 + 1. \\
5334 &= 987 + (65 + 4) \times 3 \times 21. \\
5335 &= ((9 + 87 \times 6) \times 5 + 4 \times 3) \times 2 + 1. \\
5336 &= (98 + 7 + 6 + 5) \times (43 + 2 + 1). \\
5337 &= 9 + 8 + 76 \times 5 \times (4 + 3) \times 2 \times 1. \\
5338 &= 987 + 6 \times 5 + 4321. \\
5339 &= 9 \times 87 \times 6 + 5 \times 4^3 \times 2 + 1. \\
5340 &= (9 \times 8 \times 7 + 6 \times 5) \times (4 + 3 \times 2) \times 1. \\
5341 &= 9 \times (8 + 76 \times 5) + 43^2 \times 1. \\
5342 &= 987 + 65 \times (4 + 3 \times 21). \\
5343 &= (9 + 8 + 76) \times 54 + 321. \\
5344 &= 987 + (6 + 5 \times 4 \times 3)^2 + 1. \\
5345 &= 98 + 76 \times (5 + 4^3) + 2 + 1. \\
5346 &= 9 \times (87 \times 6 + 5 + 4 + 3 \times 21). \\
5347 &= 9 \times 87 \times 6 + 5^4 + 3 + 21. \\
5348 &= 98 + 7 \times 6 \times 5 \times (4 \times 3 \times 2 + 1). \\
5349 &= (98 + 7 + 6) \times (5 + 43) + 21. \\
5350 &= 9 + 8 \times (7 \times 6 + 5^4) + 3 + 2 \times 1. \\
5351 &= (9 + (8 + 7) \times 6) \times 54 + 3 + 2 \times 1. \\
5352 &= 9 + (87 + 6) \times 54 + 321. \\
5353 &= 9 + 8 \times (7 + 654 + 3 \times 2 + 1). \\
5354 &= 9 + 8 \times (7 + 6 \times 54 + 3) \times 2 + 1. \\
5355 &= 9 \times 87 \times 6 + 5^4 + 32 \times 1. \\
5356 &= 9 \times 87 \times 6 + 5^4 + 32 + 1. \\
5357 &= 9 + (87 \times 6 \times 5 + 4^3) \times 2 \times 1. \\
5358 &= 9 \times 87 \times 6 + 5 \times 4 \times (32 + 1). \\
5359 &= 9 - 87 + 6 + 5432 - 1. \\
5360 &= 9 + 8 \times (7 + 654) + 3 \times 21. \\
5361 &= 9 \times 87 + 654 \times (3 \times 2 + 1). \\
5362 &= 987 + 6 \times ((5 + 4) \times 3)^2 + 1. \\
5363 &= 987 + 6 \times (5 + 4)^3 + 2 \times 1. \\
5364 &= 987 + 6 \times (5 + 4)^3 + 2 + 1. \\
5365 &= (9 + 876 + 5 + 4) \times 3 \times 2 + 1. \\
5366 &= (9 + 87 \times 6 \times 5 + 4^3) \times 2^1. \\
5367 &= (9 + 87 \times 6 \times 5 + 4^3) \times 2 + 1. \\
5368 &= 987 + 6 + 5^4 \times (3 \times 2 + 1). \\
5369 &= 9 + 8 \times (7 + 654 + 3^2 \times 1). \\
5370 &= (9 + (8 + 7) \times 6) \times 54 + 3 + 21. \\
5371 &= 9 + 8 \times (7 \times 6 + 5^4 + 3) \times 2 \times 1. \\
5372 &= 98 \times 7 \times 6 + (5^4 + 3) \times 2 \times 1. \\
5373 &= 987 + 65 + 4321. \\
5374 &= 9 + 8 + 765 \times (4 + 3) + 2^1. \\
5375 &= 9 + 8 + 765 \times (4 + 3) + 2 + 1. \\
5376 &= 98 \times 7 \times 6 + 5 \times 4 \times 3 \times 21. \\
5377 &= (9 + 87) \times (6 + 5) + 4321. \\
5378 &= 9 + 8 \times 76 + (5 + 4^3)^2 \times 1. \\
5379 &= 9 + 8 \times 76 + (5 + 4^3)^2 + 1. \\
5380 &= (9 \times 8 \times 7 + 6 \times 5 + 4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
5381 &= (1^2 + 3^4) \times 56 + 789. \\
5382 &= 1 \times 234 \times 5 + 6 \times 78 \times 9. \\
5383 &= 1 + 234 \times 5 + 6 \times 78 \times 9. \\
5384 &= 1^2 + 3 + 4 + 56 \times (7 + 89). \\
5385 &= (12 \times 3 + 4 + 56) \times 7 \times 8 + 9. \\
5386 &= 1 \times 2 \times (34 \times 56 + 789). \\
5387 &= 1 + 2 \times (34 \times 56 + 789). \\
5388 &= 1 \times 2^3 + 4 + 56 \times (7 + 89). \\
5389 &= 1 + 2^3 + 4 + 56 \times (7 + 89). \\
5390 &= 1 \times 2 + 3 \times 4 + 56 \times (7 + 89). \\
5391 &= 12 + 3 + 4 \times 56 \times (7 + 8 + 9). \\
5392 &= 1 \times 2 \times (3 + 4 + 5 \times 67 \times 8 + 9). \\
5393 &= 1 + 2 \times (3 + 4 + 5 \times 67 \times 8 + 9). \\
5394 &= (12 \times 3 + 4 \times 5 + 6) \times (78 + 9). \\
5395 &= 12 + 3 + 4 + 56 \times (7 + 89). \\
5396 &= 12 \times 3^4 + 56 \times (7 + 8 \times 9). \\
5397 &= 1 + (2 + 3) \times 4 + 56 \times (7 + 89). \\
5398 &= -123 + 4^5 \times 6 - 7 \times 89. \\
5399 &= 1 \times 23 + 4 \times 56 \times (7 + 8 + 9). \\
5400 &= 12 \times (3 + 45) + 67 \times 8 \times 9. \\
5401 &= 1 + 2 \times 3 \times 4 + 56 \times (7 + 89). \\
5402 &= 1 \times 23 \times (4 \times 56 + 7) + 89. \\
5403 &= 1 \times 23 + 4 + 56 \times (7 + 89). \\
5404 &= 1 + 23 + 4 + 56 \times (7 + 89). \\
5405 &= 12 \times 3^4 \times 5 + 67 \times 8 + 9. \\
5406 &= 12 \times (3 + 4) \times 56 + 78 \times 9. \\
5407 &= 1 + (2^3 + 45) \times (6 + 7 + 89). \\
5408 &= 1 \times 2^3 \times 4 + 56 \times (7 + 89). \\
5409 &= 1 \times 234 + (567 + 8) \times 9. \\
5410 &= 1 + 234 + (567 + 8) \times 9. \\
5411 &= 1^2 + 34 + 56 \times (7 + 89). \\
5412 &= 1 \times 2 + 34 + 56 \times (7 + 89). \\
5413 &= 1 + 2 + 34 + 56 \times (7 + 89). \\
5414 &= 1 \times 2 \times (34 \times (5 + 6) \times 7 + 89). \\
5415 &= (1 \times 2 + 3) \times (4^5 + 6 \times 7 + 8 + 9). \\
5416 &= 12 \times 3 + 4 + 56 \times (7 + 89). \\
5417 &= 1234 + (5 + 6 \times 7) \times 89. \\
5418 &= (1 \times 23 + 4 + 567 + 8) \times 9. \\
5419 &= 1 + 234 + (5 + 67) \times 8 \times 9. \\
5420 &= 1 + (2 + 3) \times (4^5 + 6 \times 7) + 89. \\
5421 &= 12 + 3 \times 4 \times 5 \times 6 \times (7 + 8) + 9. \\
5422 &= 12 + 34 + 56 \times (7 + 89). \\
5423 &= 1 \times 2 + (34 + 5) \times (67 + 8 \times 9). \\
5424 &= 1 \times 2 \times 345 + 6 \times 789. \\
5425 &= 1 + 2 \times 345 + 6 \times 789. \\
5426 &= 1 \times 2 + (3 + 45) \times ((6 + 7) \times 8 + 9). \\
5427 &= (1 + 23 + 4 + 567 + 8) \times 9. \\
5428 &= (12 + 34) \times (5 + (6 + 7) \times 8 + 9). \\
5429 &= (1^2 \times 3 + 45 + 6 + 7) \times 89. \\
5430 &= (1 + 2 \times 3)^4 + 5 + 6 \times 7 \times 8 \times 9. \\
5431 &= (1^2 + 3)^4 + (567 + 8) \times 9. \\
5432 &= (1^2 + 3 + 4) \times (56 + 7 \times 89). \\
5433 &= 12 + (34 + 5) \times (67 + 8 \times 9). \\
5434 &= 1 \times 2 + 3 + ((4 + 5) \times 6 + 7) \times 89. \\
5435 &= 1 + 2 + 3 + ((4 + 5) \times 6 + 7) \times 89. \\
5436 &= 123 \times 4 \times (5 + 6) + 7 + 8 + 9. \\
5437 &= 1 \times (2 + 3^4) \times 56 + 789. \\
5438 &= 1 + (2 + 3^4) \times 56 + 789. \\
5439 &= 1 + 2 + 3^4 \times (5 + 6 + 7 \times 8) + 9. \\
5440 &= 1 \times 2 \times 34 \times (56 + 7 + 8 + 9). \\
5441 &= 1 + 2 \times 34 \times (56 + 7 + 8 + 9). \\
5442 &= 1 \times 2 \times (3 + (4 \times 56 + 78) \times 9). \\
5443 &= 1 + 2 \times (3 + (4 \times 56 + 78) \times 9). \\
5444 &= 1 \times 2 \times 34 + 56 \times (7 + 89). \\
5445 &= (1 \times 2 + 3 \times 45 + 6 \times 78) \times 9. \\
5446 &= 1 \times 2 \times (34 + 5 \times 67 \times 8 + 9). \\
5447 &= 1 + 2 \times (34 + 5 \times 67 \times 8 + 9). \\
5448 &= 12 \times (34 + 5 \times 6) \times 7 + 8 \times 9. \\
5449 &= (1^2 + 3 \times 4 \times 56 + 7) \times 8 + 9. \\
5450 &= 1 + 2 \times 34 \times (5 + 67 + 8) + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5381 &= 987 \times 6 - 543 + 2 \times 1. \\
5382 &= 987 + 6 \times (5 + 4)^3 + 21. \\
5383 &= 9 \times (8 + 76 + 5 \times 43) \times 2 + 1. \\
5384 &= (9 + 8) \times 76 - 5 + 4^3 \times 2 + 1. \\
5385 &= 9 + (876 + 5 \times 4) \times 3 \times 2 \times 1. \\
5386 &= 9 + (876 + 5 \times 4) \times 3 \times 2 + 1. \\
5387 &= (9 \times 8 + 7) \times 65 + 4 \times 3 \times 21. \\
5388 &= -9 + 8 - 7 \times 6 + 5432 - 1. \\
5389 &= (9 + 8) \times (7 \times (6 + 5 + 4) \times 3 + 2 \times 1). \\
5390 &= 98 \times (7 + 6 + 5 + 4 + 32 + 1). \\
5391 &= 9 + (87 + 6 \times 5) \times (43 + 2 + 1). \\
5392 &= 9 \times 8 + 76 \times 5 \times (4 + 3) \times 2 \times 1. \\
5393 &= 9 + 8 + 765 \times (4 + 3) + 21. \\
5394 &= 9 + 8 \times 7 + (6 \times 5 + 43)^2 \times 1. \\
5395 &= 9 + 8 \times 7 + (6 \times 5 + 43)^2 + 1. \\
5396 &= ((9 + 87 \times 6) \times 5 + 43) \times 2 \times 1. \\
5397 &= (987 + 6) \times 5 + 432 \times 1. \\
5398 &= (987 + 6) \times 5 + 432 + 1. \\
5399 &= 9 \times 8 \times (76 + 5) - 432 - 1. \\
5400 &= 9 + 876 + 5 \times 43 \times 21. \\
5401 &= (9 + 8 + 7 + 6) \times 5 \times 4 \times 3^2 + 1. \\
5402 &= 9 \times (8 + 7 \times 6) \times (5 + 4 + 3) + 2 \times 1. \\
5403 &= 9 + (8 \times 7 + 6) \times (54 + 32 + 1). \\
5404 &= 987 + (6 + 5^4) \times (3 \times 2 + 1). \\
5405 &= 98 \times 7 \times 6 + 5 + 4 \times 321. \\
5406 &= 9 + (8 + 7 + 6) \times (5 + 4 \times 3 \times 21). \\
5407 &= (9 \times 87 + 6 \times 5 \times 4^3) \times 2 + 1. \\
5408 &= 9 + 8 \times (7 \times 6 + 5^4) + 3 \times 21. \\
5409 &= 9 + (8 + 7) \times 6 \times (54 + 3 + 2 + 1). \\
5410 &= 9 \times (8 \times 7 + 65) + 4321. \\
5411 &= 9 + (8 + 7) \times 6 \times 5 \times 4 \times 3 + 2 \times 1. \\
5412 &= 98 \times 7 \times 6 + 54 \times (3 + 21). \\
5413 &= 9 + 876 \times 5 + 4^3 \times 2 \times 1. \\
5414 &= 9 + 876 \times 5 + 4^3 \times 2 + 1. \\
5415 &= 9 + ((8 + 7 \times 6) \times 54 + 3) \times 2 \times 1. \\
5416 &= 9 + ((8 + 7 \times 6) \times 54 + 3) \times 2 + 1. \\
5417 &= 9 + 8 \times (7 + 6) \times (5 \times 4 + 32 \times 1). \\
5418 &= 98 + 76 \times 5 \times (4 + 3^2 + 1). \\
5419 &= 98 + 76 \times 5 \times (4 + 3) \times 2 + 1. \\
5420 &= (9 + 87 + 6 \times 5) \times 43 + 2 \times 1. \\
5421 &= (9 + 87 + 6 \times 5) \times 43 + 2 + 1. \\
5422 &= 9 + (8 + 765) \times (4 + 3) + 2 \times 1. \\
5423 &= 9 + (8 + 765) \times (4 + 3) + 2 + 1. \\
5424 &= 9 \times 87 + (6 + 5 \times 43) \times 21. \\
5425 &= 9 + 8 \times (7 \times 6 + 5^4 + 3^2 + 1). \\
5426 &= (9 + 8) \times (7 + 6) \times 5 + 4321. \\
5427 &= (9 \times 8 + 76 \times 5) \times 4 \times 3 + 2 + 1. \\
5428 &= (9 + 8 + 7 \times 6) \times (5 + 43 \times 2 + 1). \\
5429 &= 9 \times 8 + 765 \times (4 + 3) + 2 \times 1. \\
5430 &= 9 + (8 + 7) \times 6 \times 5 \times 4 \times 3 + 21. \\
5431 &= (9 + 876 + 5 \times 4) \times 3 \times 2 + 1. \\
5432 &= (9 \times (8 + 7 + 6) + 5) \times (4 + 3 + 21). \\
5433 &= 9 \times 87 \times 6 + 5 \times (4 + 3) \times 21. \\
5434 &= 9 + 8 \times (7 + 6 + 5^4) + 321. \\
5435 &= 98 + 7 + (6 \times 5 + 43)^2 + 1. \\
5436 &= 9 \times 8 \times (7 + 65) + 4 \times 3 \times 21. \\
5437 &= (98 \times (7 + 6) + 5) \times 4 + 321. \\
5438 &= 98 \times 7 + (6 + 5) \times 432 \times 1. \\
5439 &= 98 \times 7 + (6 + 5) \times 432 + 1. \\
5440 &= (9 + 8 + 7 \times 6 + 5) \times (4^3 + 21). \\
5441 &= 9 + (8 + 765) \times (4 + 3) + 21. \\
5442 &= 9 + 8 \times 7 \times (6 + 5 + 43 \times 2) + 1. \\
5443 &= -9 + 8 + 7 + 6 + 5432 - 1. \\
5444 &= 98 + (76 + 5) \times (4^3 + 2) \times 1. \\
5445 &= (9 \times 8 + 76 \times 5) \times 4 \times 3 + 21. \\
5446 &= 9 \times (87 + 6 \times 5 + 4) \times (3 + 2) + 1. \\
5447 &= 9 \times (8 \times 7 + 6 + 543) + 2 \times 1. \\
5448 &= 9 \times 8 + 765 \times (4 + 3) + 21. \\
5449 &= (9 + 8 + 7 \times 6 \times 5) \times 4 \times 3 \times 2 + 1. \\
5450 &= (9 + 876) \times 5 + 4^3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5451 &= 1234 + 5 + 6 \times 78 \times 9. \\
5452 &= 1 + 23 \times (4 \times (5 \times 6 + 7) + 89). \\
5453 &= 12 + (3 \times 4 \times 56 + 7) \times 8 + 9. \\
5454 &= 12 \times 3 \times 4 \times 5 + 6 \times 789. \\
5455 &= (1 + 23) \times 4 \times 56 + 7 + 8 \times 9. \\
5456 &= (1 + 2)^3 + ((4 + 5) \times 6 + 7) \times 89. \\
5457 &= 1^2 \times 3^4 + 56 \times (7 + 89). \\
5458 &= 1^2 + 3^4 + 56 \times (7 + 89). \\
5459 &= 1 \times 2 + 3^4 + 56 \times (7 + 89). \\
5460 &= 12 \times (3 + 4) + 56 \times (7 + 89). \\
5461 &= 1 + 2 \times (3 \times 4 + 5 \times 6) \times (7 \times 8 + 9). \\
5462 &= 1 \times 2 + (3 + 4) \times 5 \times (67 + 89). \\
5463 &= (1 + 23) \times 4 \times 56 + 78 + 9. \\
5464 &= 1 \times 2^3 \times (4 + 56 + 7 \times 89). \\
5465 &= 12 \times (34 + 5 \times 6) \times 7 + 89. \\
5466 &= 1 + (2 + 3) \times 4^5 + 6 \times 7 \times 8 + 9. \\
5467 &= 1 \times (2 + 3^4) \times 5 \times (6 + 7) + 8 \times 9. \\
5468 &= 1 \times 23 \times 4 + 56 \times (7 + 89). \\
5469 &= 12 + 3^4 + 56 \times (7 + 89). \\
5470 &= 1 + (2 + 3 \times 4 + 56) \times 78 + 9. \\
5471 &= 1 \times 2 \times (3 + 4) \times 56 \times 7 - 8 - 9. \\
5472 &= (1^2 + 3 \times 4 + 56 + 7) \times 8 \times 9. \\
5473 &= 1 + (2 + 34) \times (56 + 7 + 89). \\
5474 &= 1^2 \times 34 \times (5 + 67 + 89). \\
5475 &= 12^3 + 4 + 5 + 6 \times 7 \times 89. \\
5476 &= 1^2 + 3 + (4 + 5 + 67) \times 8 \times 9. \\
5477 &= 123 \times 4 \times (5 + 6) + 7 \times 8 + 9. \\
5478 &= (1 + 2) \times 34 + 56 \times (7 + 89). \\
5479 &= 1 \times 2 \times (3 + 4 \times (5 + 678)) + 9. \\
5480 &= 1 \times 2^3 + (4 + 5 + 67) \times 8 \times 9. \\
5481 &= 1^2 \times (34 + 567 + 8) \times 9. \\
5482 &= 1 + 2 \times (3 + 4 + 5 \times 67) \times 8 + 9. \\
5483 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 7 \times 89. \\
5484 &= 1 + 2 \times 3^4 \times 5 \times 6 + 7 \times 89. \\
5485 &= 1 + (2 + 3^4) \times 5 \times (6 + 7) + 89. \\
5486 &= 12 + 34 \times (5 + 67 + 89). \\
5487 &= 12 + 3 + (4 + 5 + 67) \times 8 \times 9. \\
5488 &= 1 \times 2 \times (3 + 4 \times (5 + 678) + 9). \\
5489 &= 12 \times 3^4 \times 5 + 6 + 7 \times 89. \\
5490 &= 1 \times 2 \times (3 + 4 \times 56 + 78) \times 9. \\
5491 &= 1234 + (5 + 6 \times 78) \times 9. \\
5492 &= 1 + 23 \times (4 + 5 \times 6) \times 7 + 8 + 9. \\
5493 &= 12 \times (3 + 4) \times 56 + 789. \\
5494 &= 1 \times (2 + 3)^4 + (5 + 67 \times 8) \times 9. \\
5495 &= 1 \times 23 + (4 + 5 + 67) \times 8 \times 9. \\
5496 &= 12 \times (34 + 5 \times 67 + 89). \\
5497 &= 1 \times (2 + 3)^4 + 56 \times (78 + 9). \\
5498 &= 1 + (2 + 3)^4 + 56 \times (78 + 9). \\
5499 &= (12 + 3) \times 45 + 67 \times 8 \times 9. \\
5500 &= 1 \times (2 \times 3 + 4) \times (5 + 67 \times 8 + 9). \\
5501 &= 1 + (2 \times 3 + 4) \times (5 + 67 \times 8 + 9). \\
5502 &= (1 + 2 + 34 + 5) \times (6 \times 7 + 89). \\
5503 &= 123 + 4 + 56 \times (7 + 89). \\
5504 &= 1 \times 2^{(3+4)} + 56 \times (7 + 89). \\
5505 &= 1 \times 2^3 \times (4 + 5 + 678) + 9. \\
5506 &= 1 + 2 \times (3 + 4) \times 56 \times 7 + 8 + 9. \\
5507 &= 1 + 23 \times (4 \times 56 + 7 + 8) + 9. \\
5508 &= (1 + 2 + 34 + 567 + 8) \times 9. \\
5509 &= 1 + 2 \times 3 \times (4 + 5) \times (6 + 7 + 89). \\
5510 &= (12 + 3^4 \times 5) \times (6 + 7) + 89. \\
5511 &= 12^3 + 45 + 6 \times 7 \times 89. \\
5512 &= 12^3 + 4 + 5 \times (6 + 78) \times 9. \\
5513 &= (1 + 2 + 3)^4 + 5 + 6 \times 78 \times 9. \\
5514 &= 1 \times 2 \times 345 + 67 \times 8 \times 9. \\
5515 &= 1 + 2 \times 345 + 67 \times 8 \times 9. \\
5516 &= (12 \times 3 + 45) \times 67 + 89. \\
5517 &= 12 \times 3^4 + 567 \times 8 + 9. \\
5518 &= (1 + 2 \times 3 \times 4 + 5 \times 6 + 7) \times 89. \\
5519 &= 1^{23} + (4 \times 5 + 6 \times 7) \times 89. \\
5520 &= 12 \times 3 \times 4 + 56 \times (7 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5451 &= 9 \times (8 + 7 \times 65) + 4 \times 321. \\
5452 &= 9 + (8 + 7 \times (6 + 5)) \times 4^3 + 2 + 1. \\
5453 &= 98 + (76 + 5 + 4) \times 3 \times 21. \\
5454 &= 98 \times 7 + 6 + (5 + 4^3)^2 + 1. \\
5455 &= 98 + 765 \times (4 + 3) + 2 \times 1. \\
5456 &= 98 + 765 \times (4 + 3) + 2 + 1. \\
5457 &= (9 \times 8 + 7) \times (65 + 4) + 3 + 2 + 1. \\
5458 &= (9 \times 8 + 7) \times (65 + 4) + 3 \times 2 + 1. \\
5459 &= 9 + (8 + 7 \times 6 \times 5) \times (4 \times 3 \times 2 + 1). \\
5460 &= (9 \times 8 + 7) \times 65 + 4 + 321. \\
5461 &= (9 \times 8 + 7) \times (65 + 4) + 3^2 + 1. \\
5462 &= 9 + 8 + 7 + 6 + 5432^1. \\
5463 &= 9 + 8 + 7 + 6 + 5432 + 1. \\
5464 &= 9 \times (8 + 7) + (6 \times 5 + 43)^2 \times 1. \\
5465 &= 98 \times 7 \times 6 + 5 + 4^3 \times 21. \\
5466 &= 9 + 8 \times 7 \times 6 + 5 \times 4^3 + 2 + 1. \\
5467 &= ((98 + 7) \times (6 + 5 \times 4) + 3) \times 2 + 1. \\
5468 &= 9 \times 8 + 76 \times (5 + 4^3 + 2) \times 1. \\
5469 &= 9 \times (87 + 6) \times 5 + 4 \times 321. \\
5470 &= 9 + 8 \times 7 \times 6 + 5 \times (4^3 + 2) + 1). \\
5471 &= 9 \times (8 \times 7 + 6) + (5 + 4 \times 3)^2 + 1). \\
5472 &= 9 \times (8 \times 7 + 6 + 543 + 2 + 1). \\
5473 &= 9 + 8 \times (7 \times 6 + 5 \times 4 \times 32 + 1). \\
5474 &= 98 + 765 \times (4 + 3) + 21. \\
5475 &= 98 \times (7 + 6 \times 5) + 43^2 \times 1. \\
5476 &= 98 \times (7 + 6 \times 5) + 43^2 + 1. \\
5477 &= 9 \times (87 + 65) \times 4 + 3 + 2 \times 1. \\
5478 &= 9 \times (87 + 65) \times 4 + 3 \times 2 \times 1. \\
5479 &= 9 + 8 + 7 \times 65 \times 4 \times 3 + 2 \times 1. \\
5480 &= 9 + 8 + 7 \times 65 \times 4 \times 3 + 2 + 1. \\
5481 &= 9 \times (87 \times 6 + 54 + 32 + 1). \\
5482 &= 9 + (87 + 65) \times 4 \times 3^2 + 1. \\
5483 &= (9 \times 8 + 7) \times (65 + 4) + 32 \times 1. \\
5484 &= (9 \times 8 + 7) \times (65 + 4) + 32 + 1. \\
5485 &= 9 + (8 \times 7 + 6 + 5 + 4 + 3)^2 \times 1. \\
5486 &= 9 \times 8 \times 76 + 5 + 4 + 3 + 2 \times 1. \\
5487 &= 9 \times 8 \times 76 + 5 + 4 + 3 \times 2 \times 1. \\
5488 &= 9 \times 8 \times 76 + 5 + 4 + 3 \times 2 + 1. \\
5489 &= 9 + 8 \times (7 + 654 + 3 + 21). \\
5490 &= 9 \times 8 \times 76 + 5 + 4 + 3^2 \times 1. \\
5491 &= 9 + 8 + 7 \times 6 + 5432 \times 1. \\
5492 &= 9 + 8 + 7 \times 6 + 5432 + 1. \\
5493 &= 9 + 87 \times (6 + 54 + 3) + 2 + 1. \\
5494 &= 98 + 76 \times (5 + 4^3 + 2 \times 1). \\
5495 &= 98 + 76 \times (5 + 4^3 + 2) + 1. \\
5496 &= 9 \times 8 \times (7 + 65 + 4) + 3 + 21. \\
5497 &= 9 \times 8 \times 76 + 5 \times 4 + 3 + 2 \times 1. \\
5498 &= 9 \times 8 \times 76 + 5 \times 4 + 3 + 2 + 1. \\
5499 &= 9 \times 8 \times 76 + 5 \times 4 + 3 \times 2 + 1. \\
5500 &= ((9 + 8) \times 7 + 6) \times (5 \times 4 + 3 + 21). \\
5501 &= 9 \times 8 \times 76 + 5 \times 4 + 3^2 \times 1. \\
5502 &= 9 \times 8 \times 76 + 5 + 4 \times 3 \times 2 + 1. \\
5503 &= 9 + 8 \times 7 + 6 + 5432 \times 1. \\
5504 &= 9 + 8 \times 7 + 6 + 5432 + 1. \\
5505 &= 9 \times 8 \times 76 + 5 + 4 + 3 + 21. \\
5506 &= 9 \times 8 \times 76 + (5 + 4 \times 3) \times 2 \times 1. \\
5507 &= 9 \times 8 \times 76 + (5 + 4 \times 3) \times 2 + 1. \\
5508 &= 987 + 6 + 5 \times 43 \times 21. \\
5509 &= 9 \times 8 \times (7 + 65) + 4 + 321. \\
5510 &= 9 \times 8 \times 76 + 5 + 4 \times 3 + 21. \\
5511 &= 9 \times (8 + 7 \times 65) + 4^3 \times 21. \\
5512 &= 9 + (876 + 5^4 \times 3) \times 2 + 1. \\
5513 &= (9 + 87 + 6) \times 54 + 3 + 2 \times 1. \\
5514 &= 9 \times 8 \times 76 + 5 + 4 + 32 + 1. \\
5515 &= (9 + 87 + 6) \times 54 + 3 \times 2 + 1. \\
5516 &= 9 \times 8 \times 76 + 5 \times 4 + 3 + 21. \\
5517 &= 9 \times 8 + 7 + 6 + 5432 \times 1. \\
5518 &= 9 \times 8 + 7 + 6 + 5432 + 1. \\
5519 &= 9 \times 8 \times 76 + 5 \times 4 + 3^{(2+1)}. \\
5520 &= 9 \times 8 \times 76 + (5 + 4) \times 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5521 &= 1^2 \times 3 + (4 \times 5 + 6 \times 7) \times 89. \\
5522 &= 1^2 + 3 + (4 \times 5 + 6 \times 7) \times 89. \\
5523 &= (1^{2345} + 6) \times 789. \\
5524 &= 1 + 2 + 3 + (4 \times 5 + 6 \times 7) \times 89. \\
5525 &= 1 + 2 \times 3 + (4 \times 5 + 6 \times 7) \times 89. \\
5526 &= 1 \times 2^3 + (4 \times 5 + 6 \times 7) \times 89. \\
5527 &= (1 \times 2 + 3) \times (4^3 + 67) + 8 \times 9. \\
5528 &= 1 + (2 + 3) \times (4^3 + 67) + 8 \times 9. \\
5529 &= (1 + 2 \times 34) \times (5 + 67 + 8) + 9. \\
5530 &= 1 \times (2 + 3 \times 4 + 56) \times (7 + 8 \times 9). \\
5531 &= 123 \times 4 \times (5 + 6) + 7 \times (8 + 9). \\
5532 &= 12 \times (3 + 456) + 7 + 8 + 9. \\
5533 &= 12 + 3 + (4 \times 5 + 6 \times 7) \times 89. \\
5534 &= -1 - 2 - 3 - 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5535 &= (12 + 3 \times 45 + 6 \times 78) \times 9. \\
5536 &= (1^2 + 3 + 4) \times (5 + 678 + 9). \\
5537 &= (12 + 3 \times 4 \times 56 + 7) \times 8 + 9. \\
5538 &= 1 \times 2 \times 3^4 + 56 \times (7 + 89). \\
5539 &= 1 + 2 \times 3^4 + 56 \times (7 + 89). \\
5540 &= 1 \times 2 \times (3^4 + 5 \times 67 \times 8 + 9). \\
5541 &= 1 \times 23 + (4 \times 5 + 6 \times 7) \times 89. \\
5542 &= 1 + 23 + (4 \times 5 + 6 \times 7) \times 89. \\
5543 &= 1 + 2 \times (3 + 4 \times (5 + 678 + 9)). \\
5544 &= 12 \times 3 \times 4 \times 5 + 67 \times 8 \times 9. \\
5545 &= 1 + 2 \times 3^4 \times 5 + 6 \times 789. \\
5546 &= 1 \times 23 \times (4 + 5 \times 6) \times 7 + 8 \times 9. \\
5547 &= 12 \times 3^4 \times 5 + 678 + 9. \\
5548 &= 1^{23} \times 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5549 &= 1^{23} + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5550 &= (1 + 2 + 34) \times 5 \times (6 + 7 + 8 + 9). \\
5551 &= 1^2 \times 3 + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5552 &= 1^2 + 3 + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5553 &= (12 \times 3 + 45 + 67 \times 8) \times 9. \\
5554 &= 12 \times 3 + (4 \times 5 + 6 \times 7) \times 89. \\
5555 &= 1 \times 2 + 3 \times (4 \times 56 + 7) \times 8 + 9. \\
5556 &= 1 + 2 + 3 \times (4 \times 56 + 7) \times 8 + 9. \\
5557 &= 1 + 2 \times 3 \times (4 \times 56 + 78 \times 9). \\
5558 &= 1 \times 2 + 3 \times 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5559 &= 1 + 2 + 3 \times 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5560 &= 1 \times (2 + 3 \times 4) \times 56 \times 7 \times 8 \times 9. \\
5561 &= (123 + 4 + 567) \times 8 + 9. \\
5562 &= 1 \times 2 \times 3^4 \times 5 \times 6 + 78 \times 9. \\
5563 &= 1 + 2 \times 3^4 \times 5 \times 6 + 78 \times 9. \\
5564 &= 1 + 23 \times (4 + 5 \times 6) \times 7 + 89. \\
5565 &= 123 \times 45 + 6 + 7 + 8 + 9. \\
5566 &= (12 + 34) \times (56 + 7 \times 8 + 9). \\
5567 &= (1 + (2 + 3 \times 4) \times 56) \times 7 + 8 \times 9. \\
5568 &= (12 \times 3^4) \times 5 + 6 + 78 \times 9. \\
5569 &= 1 + 2^3 \times (4 + 5 + 678 + 9). \\
5570 &= 1 \times 2 + 3 \times 4 \times (56 \times 7 + 8 \times 9). \\
5571 &= 1 \times 23 + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5572 &= 1 + 23 + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5573 &= 12 \times (3 + 456) + 7 \times 8 + 9. \\
5574 &= 12 \times 3^4 \times 5 + 6 \times 7 \times (8 + 9). \\
5575 &= 1 + 2 \times 3 \times (4 \times 5 \times 6 \times 7 + 89). \\
5576 &= 1 \times 2^3 \times 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5577 &= 1 \times 2 \times (3 + 4) \times 56 \times 7 + 89. \\
5578 &= 1 + 2 \times (3 + 4) \times 56 \times 7 + 89. \\
5579 &= 1^2 + 34 + (5 + 6) \times 7 \times 8 \times 9. \\
5580 &= (12 + 3 + 45) \times (6 + 78 + 9). \\
5581 &= 1^2 + 3 \times 4 \times 5 \times (6 + 78 + 9). \\
5582 &= 1 \times 2 + 3 \times 4 \times 5 \times (6 + 78 + 9). \\
5583 &= 1 + 2 + 3 \times 4 \times 5 \times (6 + 78 + 9). \\
5584 &= 12 \times 3 + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5585 &= (1 \times 2 + 3) \times (4^3 + 6 + 78 + 9). \\
5586 &= 1 + (2 + 3) \times (4^3 + 6 + 78 + 9). \\
5587 &= 12 \times (3 + 456) + 7 + 8 \times 9. \\
5588 &= 1 \times 2^3 + (4 + (5 + 6) \times 7 \times 8) \times 9. \\
5589 &= (12 + 34 + 567 + 8) \times 9. \\
5590 &= 12 + 34 + (5 + 6) \times 7 \times 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5521 &= (9 + 876 + 5^4 \times 3) \times 2 + 1. \\
5522 &= 9 \times 8 \times 76 + 5 + 43 + 2 \times 1. \\
5523 &= 9 \times 8 \times 76 + 5 + 43 + 2 + 1. \\
5524 &= 9 \times 8 \times 76 + 5 \times 4 + 32 \times 1. \\
5525 &= 9 + 8 + 76 + 5432 \times 1. \\
5526 &= 9 + 8 + 76 + 5432 + 1. \\
5527 &= 9 \times 8 \times 76 + 5 + (4 + 3)^2 + 1. \\
5528 &= 9 \times 8 \times 76 + 5 \times (4 + 3) + 21. \\
5529 &= 9 \times (87 + 6) \times 5 + 4^3 \times 21. \\
5530 &= (9 \times 8 + 7) \times (6 + 54 + 3^2 + 1). \\
5531 &= 9 \times 8 \times 76 + 54 + 3 + 2 \times 1. \\
5532 &= 9 \times 8 \times 76 + 54 + 3 + 2 + 1. \\
5533 &= 9 \times 8 \times 76 + 54 + 3 \times 2 + 1. \\
5534 &= 9 + 87 + 6 + 5432 \times 1. \\
5535 &= 9 + 87 + 6 + 5432 + 1. \\
5536 &= 9 \times 87 + (6 + 5) \times 432 + 1. \\
5537 &= 98 + 7 \times (6 \times 5 + 4 + 3) \times 21. \\
5538 &= 9 \times 8 \times 76 + 5 \times (4 + 3^2) + 1. \\
5539 &= 9 \times 8 \times 76 + 5 + 4^3 - 2 \times 1. \\
5540 &= (9 + 87 + 6) \times 54 + 32 \times 1. \\
5541 &= 9 \times 8 \times 76 + 5 + 43 + 21. \\
5542 &= 9 \times 8 \times 76 + 5 \times (4 + 3) \times 2 \times 1. \\
5543 &= 98 + 7 + 6 + 5432 \times 1. \\
5544 &= 98 + 7 + 6 + 5432 + 1. \\
5545 &= 9 + 8 \times (7 + 6) + 5432 \times 1. \\
5546 &= 9 + 8 \times (7 + 6) + 5432 + 1. \\
5547 &= 9 \times 8 + 7 \times 6 + 5432 + 1. \\
5548 &= 9 \times (8 \times 76 + 5) + 4 + 3^{(2+1)}. \\
5549 &= 9 + 8 + 7 + 65 \times (4^3 + 21). \\
5550 &= 9 \times 8 \times 76 + 54 + 3 + 21. \\
5551 &= 9 \times 87 + 6 + (5 + 4^3)^2 + 1. \\
5552 &= 9 \times 8 \times 76 - 5 + 43 \times 2 - 1. \\
5553 &= 9 \times 8 \times 76 + 5 \times 4 \times 3 + 21. \\
5554 &= 9 \times 8 \times 76 + (5 + 4) \times 3^2 + 1. \\
5555 &= 9 \times 8 \times 76 + 5 \times 4 + 3 \times 21. \\
5556 &= 9 \times (8 + 7) \times (6 + 5 \times (4 + 3)) + 21. \\
5557 &= (9 + 8) \times 7 + 6 + 5432 \times 1. \\
5558 &= 9 \times 8 \times 76 + 54 + 32 \times 1. \\
5559 &= 9 \times 8 \times 76 + 54 + 32 + 1. \\
5560 &= 98 + 7 \times 65 \times 4 \times 3 + 2 \times 1. \\
5561 &= 98 + 7 \times 65 \times 4 \times 3 + 2 + 1. \\
5562 &= 9 \times 8 \times 76 + 5 + 4^3 + 21. \\
5563 &= 9 \times 8 \times 76 + 5 + 43 \times 2 \times 1. \\
5564 &= 9 \times 8 \times 76 + 5 + 43 \times 2 + 1. \\
5565 &= 987 + 654 \times (3 \times 2 + 1). \\
5566 &= 9 \times (8 \times 76 + 5) + (4 + 3)^2 \times 1. \\
5567 &= 9 + (8 + 7 \times 65) \times 4 \times 3 + 2 \times 1. \\
5568 &= (9 \times 8 + 7) \times 65 + 432 + 1. \\
5569 &= (98 + 7 + 65 + 4) \times 32 + 1. \\
5570 &= 98 + 76 \times (5 + 4 + 3 \times 21). \\
5571 &= (9 + 87 + 6) \times 54 + 3 \times 21. \\
5572 &= 98 + 7 \times 6 + 5432 \times 1. \\
5573 &= 98 + 7 \times 6 + 5432 + 1. \\
5574 &= 98 \times 7 \times 6 + 54 \times 3^{(2+1)}. \\
5575 &= 98 \times 7 \times 6 + (5 + 4)^3 \times 2 + 1. \\
5576 &= (9 + 8 + 7) \times 6 + 5432 \times 1. \\
5577 &= (9 + 8 + 7) \times 6 + 5432 + 1. \\
5578 &= (9 + (8 + 76) \times 5) \times (4 + 3^2) + 1. \\
5579 &= 98 + 7 \times 65 \times 4 \times 3 + 21. \\
5580 &= 9 \times 8 + 76 + 5432 \times 1. \\
5581 &= 9 \times 8 + 76 + 5432 + 1. \\
5582 &= (9 + 8 + 76) \times 5 \times 4 \times 3 + 2 \times 1. \\
5583 &= 9 \times 8 \times (7 + 6) \times 5 + 43 \times 21. \\
5584 &= 9 \times (8 \times 76 + 5) + 4 + 3 \times 21. \\
5585 &= 9 \times (8 \times 76 + 5 + 4) + 32 \times 1. \\
5586 &= 98 \times (7 + 6 + 5 \times 4 + 3 + 21). \\
5587 &= 9 \times 8 \times 76 + (54 + 3) \times 2 + 1. \\
5588 &= 9 + 8 \times 7 + (65 \times 4 + 3) \times 21. \\
5589 &= 9 \times 8 \times 76 + 54 + 3 \times 21. \\
5590 &= 9 + (876 + 54) \times 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5591 &= 1 + 2 - 3^4 + 5678 - 9. \\
5592 &= 12 + 3 \times 4 \times 5 \times (6 + 78 + 9). \\
5593 &= 1 \times 2^3 \times (4 \times 5 + 678) + 9. \\
5594 &= 123 \times 45 + 6 \times 7 + 8 + 9. \\
5595 &= 12 \times (3 + 456) + 78 + 9. \\
5596 &= 1 + 2 \times (3 + 45 \times (6 + 7 \times 8)) + 9. \\
5597 &= 1 \times (2 + 3) \times 4^5 + 6 \times 78 + 9. \\
5598 &= 1 + (2 + 3) \times 4^5 + 6 \times 78 + 9. \\
5599 &= 1 + (2 + 34 \times (5 + 6 + 7) + 8) \times 9. \\
5600 &= 1^2 \times (3 + 4) \times (5 + 6 + 789). \\
5601 &= 1^2 + (3 + 4) \times (5 + 6 + 789). \\
5602 &= 1 \times 2 + (3 + 4) \times (5 + 6 + 789). \\
5603 &= 1 + 2 + (3 + 4) \times (5 + 6 + 789). \\
5604 &= 12 \times (3 + 456) + 7 + 89. \\
5605 &= (12 + 3 + 4) \times 5 \times (6 \times 7 + 8 + 9). \\
5606 &= 123 \times 45 + 6 + 7 \times 8 + 9. \\
5607 &= 1^{234} \times (56 + 7) \times 89. \\
5608 &= 1^2 + (3 + 4) \times (5 + 6 + 78) \times 9. \\
5609 &= 12 \times (3 + 456 + 7) + 8 + 9. \\
5610 &= 1 \times 234 + 56 \times (7 + 89). \\
5611 &= 1234 + 56 \times 78 + 9. \\
5612 &= 12 + (3 + 4) \times (5 + 6 + 789). \\
5613 &= 1 + 2 \times 34 + (5 + 6) \times 7 \times 8 \times 9. \\
5614 &= 1^2 \times 3 + 4 + (56 + 7) \times 89. \\
5615 &= 1 \times (2 + 3) \times (4^5 + 6 \times (7 + 8) + 9). \\
5616 &= (123 + 4 + 5) \times 6 \times 7 + 8 \times 9. \\
5617 &= 1 + 2 \times 3 \times (4 \times 5 + 6 + 78) \times 9. \\
5618 &= 1 \times 2 + (34 + 5) \times 6 \times (7 + 8 + 9). \\
5619 &= 123 \times 45 + 67 + 8 + 9. \\
5620 &= 123 \times 45 + 6 + 7 + 8 \times 9. \\
5621 &= 1 \times 2 + 34 \times (5 + 6) \times (7 + 8) + 9. \\
5622 &= 12 + 34 \times (5 \times 6 + (7 + 8) \times 9). \\
5623 &= (1^2 + 3) \times 4 + (56 + 7) \times 89. \\
5624 &= (1 + 2 + 34) \times (56 + 7 + 89). \\
5625 &= (123 \times 4 + 5 \times 6 \times 7) \times 8 + 9. \\
5626 &= 1^2 + (3 + 4 + 5) \times 6 \times 78 + 9. \\
5627 &= 1 \times 2 + (3 + 4 + 5) \times 6 \times 78 + 9. \\
5628 &= 123 \times 45 + 6 + 78 + 9. \\
5629 &= 1^2 + 3 + 45 \times (6 + 7 \times (8 + 9)). \\
5630 &= (1 \times 2 + 3) \times 4^5 + 6 + 7 \times 8 \times 9. \\
5631 &= 1 + (2 + 3) \times 4^5 + 6 + 7 \times 8 \times 9. \\
5632 &= (1^2 + 3)^4 + 56 \times (7 + 89). \\
5633 &= (123 + 4 + 5) \times 6 \times 7 + 89. \\
5634 &= 1 \times 2 \times 3^4 \times 5 + 67 \times 8 \times 9. \\
5635 &= 1 + 2 \times 3^4 \times 5 + 67 \times 8 \times 9. \\
5636 &= 1 \times 23 \times 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5637 &= 123 \times 45 + 6 + 7 + 89. \\
5638 &= (1 + 2)^3 + 4 + (56 + 7) \times 89. \\
5639 &= (1 + 2 \times 3^4) \times 5 + 67 \times 8 \times 9. \\
5640 &= 12 \times (345 + 6 + 7 \times (8 + 9)). \\
5641 &= 123 + (4 \times 5 + 6 \times 7) \times 89. \\
5642 &= (1 \times 2 + 3) \times 4^5 + 6 \times (78 + 9). \\
5643 &= 12 \times (3 + 456) + (7 + 8) \times 9. \\
5644 &= (1 + 2 \times 3 \times (4 + 5) \times 6 + 7) \times (8 + 9). \\
5645 &= (1 + 2^{(3+4)} + 5) \times 6 \times 7 + 8 + 9. \\
5646 &= (1 + 2) \times 34 + (5 + 6) \times 7 \times 8 \times 9. \\
5647 &= 1 + 2 \times (3 + 4 \times 5 \times (6 + (7 + 8) \times 9)). \\
5648 &= 123 \times 45 + (6 + 7) \times 8 + 9. \\
5649 &= 123 \times 45 + 6 \times 7 + 8 \times 9. \\
5650 &= 1 + 2 \times 3^4 \times 5 \times 6 + 789. \\
5651 &= 1 + (2 + 3 + 45) \times ((6 + 7) \times 8 + 9). \\
5652 &= 12 \times 3^4 + 5 \times (6 + 7) \times 8 \times 9. \\
5653 &= 12 + 34 + (56 + 7) \times 89. \\
5654 &= (1 \times 2 + 3) \times (4^5 + 6) + 7 \times 8 \times 9. \\
5655 &= 12 \times 3^4 \times 5 + 6 + 789. \\
5656 &= 1 \times 23 \times 4 \times 56 + 7 \times 8 \times 9. \\
5657 &= 1 + 23 \times 4 \times 56 + 7 \times 8 \times 9. \\
5658 &= 1234 + 56 \times (7 + 8 \times 9). \\
5659 &= 1 + (2^{(3+4)} + 5) \times 6 \times 7 + 8 \times 9. \\
5660 &= 123 \times 45 + 6 + 7 \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5591 &= 9 + (87 + 6) \times 5 \times 4 \times 3 + 2 \times 1. \\
5592 &= 9 \times 8 \times 76 + 5 \times 4 \times 3 \times 2 \times 1. \\
5593 &= 9 \times 8 \times 76 + 5 \times 4 \times 3 \times 2 + 1. \\
5594 &= (9 + 8) \times 7 \times (6 + 5 + 4 + 32) + 1. \\
5595 &= 9 \times 8 + 7 \times (65 \times 4 + 3) \times (2 + 1). \\
5596 &= (9 + 8) \times (7 \times 6 + 5) \times (4 + 3) + 2 + 1. \\
5597 &= 9 \times 8 \times 76 + 5 \times (4 \times 3 \times 2 + 1). \\
5598 &= 9 \times (8 \times 76 + 5 + 4 + 3 + 2 \times 1). \\
5599 &= (9 + 8 \times 76 + 5) \times (4 + 3 + 2) + 1. \\
5600 &= 98 \times (7 + 6) + 5 + 4321. \\
5601 &= (9 + 8 + 76) \times 5 \times 4 \times 3 + 21. \\
5602 &= 9 \times 8 + 7 + (65 \times 4 + 3) \times 21. \\
5603 &= 9 \times (8 \times 76 + 5) + 43 \times 2 \times 1. \\
5604 &= 9 \times (8 \times 76 + 5) + 43 \times 2 + 1. \\
5605 &= 9 \times 8 \times 76 + 5 + 4 \times 32 \times 1. \\
5606 &= 9 \times 87 \times 6 + 5 + 43 \times 21. \\
5607 &= 98 + 76 + 5432 + 1. \\
5608 &= 9 \times 8 \times 7 \times (6 + 5) + 43 + 21. \\
5609 &= 9 \times 8 \times 76 + 5 + 4 \times (32 + 1). \\
5610 &= 9 \times (87 + 6 \times 5 \times 4) \times 3 + 21. \\
5611 &= 9 \times 8 \times 7 \times (6 + 5) + 4 + 3 \times 21. \\
5612 &= 9 \times 8 \times 76 + 5 \times (4 + 3 + 21). \\
5613 &= 9 \times (8 \times 76 + 5) + 4 \times (3 + 21). \\
5614 &= 9 + 8 + 7 + 65 \times 43 \times 2 \times 1. \\
5615 &= 9 + 8 + 7 + 65 \times 43 \times 2 + 1. \\
5616 &= 9 \times 8 \times (7 + 65) + 432 \times 1. \\
5617 &= 9 \times 8 \times (7 + 65) + 432 + 1. \\
5618 &= 9 + 8 \times (7 + 654) + 321. \\
5619 &= 9 + 87 + (65 \times 4 + 3) \times 21. \\
5620 &= 9 + 8 + (7 + 6) \times (5 \times 43 \times 2 + 1). \\
5621 &= 9 \times (8 + 7 + 6) + 5432 \times 1. \\
5622 &= 9 \times (8 + 7 + 6) + 5432 + 1. \\
5623 &= 9 + 8 \times (76 + 5^4) + 3 \times 2 \times 1. \\
5624 &= 9 \times 8 \times 76 + 5 + (4 + 3) \times 21. \\
5625 &= 9 + 8 \times (7 + 6) \times (5 + 4) \times 3 \times 2 \times 1. \\
5626 &= 9 + 8 \times (76 + 5^4) + 3^2 \times 1. \\
5627 &= 9 + 8 \times (76 + 5^4) + 3^2 + 1. \\
5628 &= 987 + (6 + 5 \times 43) \times 21. \\
5629 &= 9 + (8 + 7 + 65 \times 43) \times 2 \times 1. \\
5630 &= 9 + 8 \times (7 + 6) \times 54 + 3 + 2 \times 1. \\
5631 &= 9 + 8 \times (7 + 6) \times 54 + 3 \times 2 \times 1. \\
5632 &= 9 + 8 \times (7 + 6) \times 54 + 3 \times 2 + 1. \\
5633 &= 9 + (87 + 65) \times (4 + 32 + 1). \\
5634 &= (9 + 876 + 54) \times 3 \times 2 \times 1. \\
5635 &= (9 + 876 + 54) \times 3 \times 2 + 1. \\
5636 &= 9 \times 8 \times 76 + 54 \times 3 + 2 \times 1. \\
5637 &= 9 \times 8 \times 76 + 54 \times 3 + 2 + 1. \\
5638 &= (9 + 8 + 7 + 65 \times 43) \times 2 \times 1. \\
5639 &= (9 + 8 + 7 + 65 \times 43) \times 2 + 1. \\
5640 &= 9 \times 8 \times 7 \times (6 + 5) + 4 \times (3 + 21). \\
5641 &= 9 + 8 \times (76 + 5^4) + 3 + 21. \\
5642 &= (9 + 8) \times 7 + (65 \times 4 + 3) \times 21. \\
5643 &= 9 + 8 \times (76 + 5^4 + 3) + 2 \times 1. \\
5644 &= 9 \times 87 \times 6 + 5^4 + 321. \\
5645 &= 9 \times (8 \times 76 + 5) + 4^3 \times 2 \times 1. \\
5646 &= 9 \times (87 \times 6 + 5) + 43 \times 21. \\
5647 &= 9 + 876 + (5 + 4^3)^2 + 1. \\
5648 &= -9 + 87 \times 65 - 4 + 3 \times 2 \times 1. \\
5649 &= 9 + 8 \times (76 \times 5 + 4 + 321). \\
5650 &= 9 + 8 \times (76 + 5^4) + 32 + 1. \\
5651 &= (9 + 8) \times (7 + 6 \times 54) + 3 + 21. \\
5652 &= 9 \times 8 \times 76 + 5 \times 4 \times 3^2 \times 1. \\
5653 &= 9 \times 8 \times 76 + 5 \times 4 \times 3^2 + 1. \\
5654 &= (9 + 8) \times (7 + 6) + 5432 + 1. \\
5655 &= 9 \times 8 \times 76 + 54 \times 3 + 21. \\
5656 &= 9 + 8 \times 7 + 65 \times 43 \times 2 + 1. \\
5657 &= 9 + 8 \times (7 + 6) \times 54 + 32 \times 1. \\
5658 &= 9 + 8 \times (7 + 6) \times 54 + 32 + 1. \\
5659 &= 9 \times 8 + 7 \times 6 \times (5 + 4^3 \times 2) + 1. \\
5660 &= (9 + 8) \times (7 + 6 \times 54) + 32 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5661 &= 12 \times (3 \times 45 + 6 \times 7 \times 8) + 9. \\
5662 &= 1 + (2 + 3 + 4) \times (5 \times 6 + 7) \times (8 + 9). \\
5663 &= -1 + 2 - 3 - 4 + 5678 - 9. \\
5664 &= 12 \times (3 + 456 + 7) + 8 \times 9. \\
5665 &= 1 \times (2 + 3) \times 4^5 + 67 \times 8 + 9. \\
5666 &= 123 \times 45 + 6 \times 7 + 89. \\
5667 &= 123 \times 4 + (567 + 8) \times 9. \\
5668 &= 1 + 2 \times 3 + (4 + 5) \times (6 + 7 \times 89). \\
5669 &= 1 \times 2^3 + (4 + 5) \times (6 + 7 \times 89). \\
5670 &= 12 \times 3^4 \times 5 + 6 \times (7 + 8) \times 9. \\
5671 &= 123 + 4 + (5 + 6) \times 7 \times 8 \times 9. \\
5672 &= 1 \times 2 + (3 \times 4 + 5 \times 6) \times (7 + 8) \times 9. \\
5673 &= 1 \times (2 \times 3)^4 + 56 \times 78 + 9. \\
5674 &= 123 \times 45 + 67 + 8 \times 9. \\
5675 &= (1 + 2 \times 3 \times 4) \times (5 \times 6 \times 7 + 8 + 9). \\
5676 &= 123 \times 45 + 6 + (7 + 8) \times 9. \\
5677 &= -1 + 2 + 3 + 4 + 5678 - 9. \\
5678 &= 1 \times (2 + 3) \times 4^5 + (6 + 7 \times 8) \times 9. \\
5679 &= (1 + 2 \times 3^4) \times 5 \times 6 + 789. \\
5680 &= 1 + 2 \times 3 \times 45 \times (6 + 7 + 8) + 9. \\
5681 &= 12 \times (3 + 456 + 7) + 89. \\
5682 &= 12 + (3 \times 4 + 5 \times 6) \times (7 + 8) \times 9. \\
5683 &= 1 + 2 - 3 - 4 + 5678 + 9. \\
5684 &= 1 \times 23 + (4 + 5) \times (6 + 7 \times 89). \\
5685 &= 1 + 23 + (4 + 5) \times (6 + 7 \times 89). \\
5686 &= 1 + (2^3 + 4) \times (5 + 6 \times 78) + 9. \\
5687 &= 1^{234} \times 5678 + 9. \\
5688 &= 1^{234} + 5678 + 9. \\
5689 &= 1 \times 2 + 3 \times 45 \times 6 \times 7 + 8 + 9. \\
5690 &= 1 + 2 + 3 \times 45 \times 6 \times 7 + 8 + 9. \\
5691 &= 123 \times 45 + 67 + 89. \\
5692 &= 1^{23} + 4 + 5678 + 9. \\
5693 &= 12 \times (3^4 + 56 \times 7) + 8 + 9. \\
5694 &= 1^2 \times 3 + 4 + 5678 + 9. \\
5695 &= 1^2 + 3 + 4 + 5678 + 9. \\
5696 &= 1 \times 2 + 3 + 4 + 5678 + 9. \\
5697 &= 1 + 2 + 3 + 4 + 5678 + 9. \\
5698 &= 1 + 2 \times 3 + 4 + 5678 + 9. \\
5699 &= 1^2 \times 3 \times 4 + 5678 + 9. \\
5700 &= 1 + 2^3 + 4 + 5678 + 9. \\
5701 &= 1 \times 2 + 3 \times 4 + 5678 + 9. \\
5702 &= 1 + 2 + 3 \times 4 + 5678 + 9. \\
5703 &= (1^2 + 3) \times 4 + 5678 + 9. \\
5704 &= 1 \times 23 \times (4 \times 56 + 7 + 8 + 9). \\
5705 &= 1 + 23 \times (4 \times 56 + 7 + 8 + 9). \\
5706 &= 12 + 3 + 4 + 5678 + 9. \\
5707 &= 12^3 + 4 + 5 \times (6 + 789). \\
5708 &= 1 + (2 + 3) \times 4 + 5678 + 9. \\
5709 &= 1 \times 2 + 3 \times 4 + 5 \times 67 \times (8 + 9). \\
5710 &= 1 + 2 + 3 \times 4 + 5 \times 67 \times (8 + 9). \\
5711 &= 12 + 3 \times 4 + 5678 + 9. \\
5712 &= 1 + 2 \times 3 \times 4 + 5678 + 9. \\
5713 &= 1 + (23 + 45) \times (67 + 8 + 9). \\
5714 &= 1 \times 23 + 4 + 5678 + 9. \\
5715 &= 1 + 23 + 4 + 5678 + 9. \\
5716 &= 1 + (2 + 3) \times 4 + 5 \times 67 \times (8 + 9). \\
5717 &= (1 + 2^{(3+4)} + 5) \times 6 \times 7 + 89. \\
5718 &= (1 + 2)^3 + 4 + 5678 + 9. \\
5719 &= 1 \times 2^3 \times 4 + 5678 + 9. \\
5720 &= 1 + 2^3 \times 4 + 5678 + 9. \\
5721 &= 1^2 \times 34 + 5678 + 9. \\
5722 &= 1^2 + 34 + 5678 + 9. \\
5723 &= 1 \times 2 + 34 + 5678 + 9. \\
5724 &= 1 + 2 + 34 + 5678 + 9. \\
5725 &= 1^2 + (3 + 4 + 5) \times (6 \times 78 + 9). \\
5726 &= 1 \times 2 + (3 + 4 + 5) \times (6 \times 78 + 9). \\
5727 &= 12 \times 3 + 4 + 5678 + 9. \\
5728 &= 1 + 2^3 \times 4 + 5 \times 67 \times (8 + 9). \\
5729 &= 12 \times (3 \times 4 + 56) \times 7 + 8 + 9. \\
5730 &= 1^2 + 34 + 5 \times 67 \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5661 &= 9 + (8 \times 76 + 5 \times 4) \times 3^2 \times 1. \\
5662 &= 9 \times 8 + (7 + 6) \times 5 \times 43 \times 2 \times 1. \\
5663 &= 9 \times 8 + (7 + 6) \times 5 \times 43 \times 2 + 1. \\
5664 &= 9 + 87 \times (6 + 54 + 3 + 2 \times 1). \\
5665 &= 9 + 87 \times (6 + 54 + 3 + 2) + 1. \\
5666 &= 9 + 8 \times (7 \times 6 + 5^4) + 321. \\
5667 &= (9 + 8 + 7 \times 65) \times 4 \times 3 + 2 + 1. \\
5668 &= 9 \times 8 + 7 + 65 \times 43 \times 2 - 1. \\
5669 &= 9 \times 8 + 7 + 65 \times 43 \times 2 \times 1. \\
5670 &= 9 \times 8 + 7 + 65 \times 43 \times 2 + 1. \\
5671 &= (9 + 87 + 6 \times 5) \times (43 + 2) + 1. \\
5672 &= 9 \times 8 \times 7 \times (6 + 5) + 4 \times 32 \times 1. \\
5673 &= 9 + 876 \times 5 + 4 \times 321. \\
5674 &= 9 + 87 \times 65 + 4 + 3 + 2 + 1. \\
5675 &= 9 + 87 \times 65 + 4 + 3 \times 2 + 1. \\
5676 &= (98 \times 7 + 65 \times 4) \times 3 \times 2 \times 1. \\
5677 &= 9 + 87 \times 65 + 4 + 3^2 \times 1. \\
5678 &= 9 + 87 \times 65 + 4 + 3^2 + 1. \\
5679 &= 9 + 87 \times 65 + 4 \times 3 + 2 + 1. \\
5680 &= 9 + 8 \times (76 + 5^4) + 3 \times 21. \\
5681 &= 9 + 8 \times (7 + 6 \times (54 + 3 \times 21)). \\
5682 &= 9 + (87 + 6) \times (54 + 3 \times 2 + 1). \\
5683 &= 9 \times (8 \times 7 + 6) + 5 \times (4^3 + 2) + 1. \\
5684 &= 9 + 8 + 7 \times 6 + 5^4 \times 3^2 \times 1. \\
5685 &= 9 + 8 + 7 \times 6 + 5^4 \times 3^2 + 1. \\
5686 &= 9 + 87 + 65 \times 43 \times 2 \times 1. \\
5687 &= 9 + 87 + 65 \times 43 \times 2 + 1. \\
5688 &= 9 + 87 \times 65 + 4 \times 3 \times 2 \times 1. \\
5689 &= 9 \times 8 \times 76 + 5 \times 43 + 2 \times 1. \\
5690 &= 9 \times 8 \times 76 + 5 \times 43 + 2 + 1. \\
5691 &= (98 + 7) \times (6 + 5 + 43) + 21. \\
5692 &= 9 + 87 \times 65 + 4 + 3 + 21. \\
5693 &= (9 \times 87 + 6 \times 5) \times (4 + 3) + 2 \times 1. \\
5694 &= (98 + 7) \times 6 \times (5 + 4) + 3 + 21. \\
5695 &= 98 + 7 + 65 \times 43 \times 2 \times 1. \\
5696 &= 98 + 7 + 65 \times 43 \times 2 + 1. \\
5697 &= 9 + 87 \times 65 + 4 \times 3 + 21. \\
5698 &= 9 \times 8 \times 76 + 5 \times (43 + 2) + 1. \\
5699 &= (9 + 8 + 7 + 65) \times 4^3 + 2 + 1. \\
5700 &= 9 + 87 \times 65 + 4 + 32 \times 1. \\
5701 &= 9 + 87 \times 65 + 4 + 32 + 1. \\
5702 &= 9 \times 8 \times 76 + 5 \times (43 + 2 + 1). \\
5703 &= (98 + 7) \times 6 \times (5 + 4) + 32 + 1. \\
5704 &= 9 + 87 \times 65 + 4 \times (3^2 + 1). \\
5705 &= 98 + 7 \times (65 \times 4 \times 3 + 21). \\
5706 &= 9 \times 87 \times 6 + (5 + 43) \times 21. \\
5707 &= 9 + (8 + 76 + 5) \times 4^3 + 2 \times 1. \\
5708 &= 9 \times 8 \times 76 + 5 \times 43 + 21. \\
5709 &= 9 + 87 \times 65 + 43 + 2 \times 1. \\
5710 &= 9 + 87 \times 65 + 43 + 2 + 1. \\
5711 &= 9 \times 8 + 7 + 6 + 5^4 \times 3^2 + 1. \\
5712 &= 9 + (8 \times 7 + 65 \times 43) \times 2 + 1. \\
5713 &= 9 + 87 \times 65 + (4 + 3)^2 \times 1. \\
5714 &= 9 + 87 \times 65 + (4 + 3)^2 + 1. \\
5715 &= 9 \times (8 \times 76 + 5 \times 4) + 3 \times 21. \\
5716 &= ((98 + 7) \times 6 + 5) \times (4 + 3 + 2) + 1. \\
5717 &= 9 + 8 + 76 \times 5 \times (4 \times 3 + 2 + 1). \\
5718 &= 9 + 8 + 76 + 5^4 \times 3^2 \times 1. \\
5719 &= 9 + 8 + 76 + 5^4 \times 3^2 + 1. \\
5720 &= 9 + 8 \times 7 + 65 \times (43 \times 2 + 1). \\
5721 &= 9 + 8 \times 7 \times (65 + 4 + 32 + 1). \\
5722 &= 9 + 87 + (6 + 5 + 4^3)^2 + 1. \\
5723 &= 9 + 8 \times 7 \times (6 \times 5 + 4) \times 3 + 2 \times 1. \\
5724 &= 9 + 8 \times 7 \times 6 \times (5 + 4 \times 3) + 2 + 1. \\
5725 &= 9 \times (8 + 7) + 65 \times 43 \times 2 \times 1. \\
5726 &= 98 + 7 \times 6 \times (5 + 4 \times 32 + 1). \\
5727 &= 9 + 87 + 6 + 5^4 \times 3^2 \times 1. \\
5728 &= 9 + 87 \times 65 + 43 + 21. \\
5729 &= 9 \times 8 \times 76 + 5 + 4 \times 3 \times 21. \\
5730 &= 9 + 87 \times 65 + 4^3 + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5731 &= 1 \times 2 + 34 + 5 \times 67 \times (8 + 9). \\
5732 &= 1 + 2 + 34 + 5 \times 67 \times (8 + 9). \\
5733 &= 12 + 34 + 5678 + 9. \\
5734 &= 1^2 + (3 + 4) \times (5 \times 6 + 789). \\
5735 &= 12 \times 3 + 4 + 5 \times 67 \times (8 + 9). \\
5736 &= 1 + 2 + (3 + 4) \times (5 \times 6 + 789). \\
5737 &= 1 \times 2 \times (345 + 6 + 7) \times 8 + 9. \\
5738 &= 1 + 2 \times (345 + 6 + 7) \times 8 + 9. \\
5739 &= 1^2 \times 3 \times ((4 + 5 \times 6) \times 7 \times 8 + 9). \\
5740 &= 1 \times (2 + 3) \times (4 + 5 + 67 \times (8 + 9)). \\
5741 &= 12 + 34 + 5 \times 67 \times (8 + 9). \\
5742 &= 1^2 \times 3 \times 45 \times 6 \times 7 + 8 \times 9. \\
5743 &= 1^2 + 3 \times 45 \times 6 \times 7 + 8 \times 9. \\
5744 &= 1 \times 2 + 3 \times 45 \times 6 \times 7 + 8 \times 9. \\
5745 &= 1 + 2 + 3 \times 45 \times 6 \times 7 + 8 \times 9. \\
5746 &= (1 + 2 \times 3 \times 45 + 67) \times (8 + 9). \\
5747 &= (12 + 3) \times 4 + 5678 + 9. \\
5748 &= 12 \times (3^4 + 56 \times 7) + 8 \times 9. \\
5749 &= 1 \times (2 + 3) \times 4^5 + 6 + 7 \times 89. \\
5750 &= (1 + 2) \times (34 \times 56 + 7) + 8 + 9. \\
5751 &= (12 \times 3 + 45) \times (6 + 7 \times 8 + 9). \\
5752 &= 1 + (2 + 3 + 4) \times (567 + 8 \times 9). \\
5753 &= 1 + 2^3 \times (4 + (5 + 6) \times (7 \times 8 + 9)). \\
5754 &= 12 + 3 \times 45 \times 6 \times 7 + 8 \times 9. \\
5755 &= 1 \times 2 \times 34 + 5678 + 9. \\
5756 &= 1 + 2 \times 34 + 5678 + 9. \\
5757 &= 1 + (2 + 3 \times 45 \times 6) \times 7 + 8 \times 9. \\
5758 &= 1^{23} \times 4^5 + 6 \times 789. \\
5759 &= 1^{23} + 4^5 + 6 \times 789. \\
5760 &= 1^2 + 3 \times 45 \times 6 \times 7 + 89. \\
5761 &= 1^2 \times 3 + 4^5 + 6 \times 789. \\
5762 &= 1 + 2 + 3 \times 45 \times 6 \times 7 + 89. \\
5763 &= 1 \times 2 + 3 + 4^5 + 6 \times 789. \\
5764 &= 1 + 2 + 3 + 4^5 + 6 \times 789. \\
5765 &= 1 + 2 \times 3 + 4^5 + 6 \times 789. \\
5766 &= 1 \times 2^3 + 4^5 + 6 \times 789. \\
5767 &= 1 + 2^3 + 4^5 + 6 \times 789. \\
5768 &= 1^2 \times 3^4 + 5678 + 9. \\
5769 &= 1^2 + 3^4 + 5678 + 9. \\
5770 &= 1 + 23 \times 45 + 6 \times 789. \\
5771 &= 12 + 3 \times 45 \times 6 \times 7 + 89. \\
5772 &= 12 + 3^4 \times (56 + 7 + 8) + 9. \\
5773 &= 12 + 3 + 4^5 + 6 \times 789. \\
5774 &= 1 + (2 + 3 \times 45 \times 6) \times 7 + 89. \\
5775 &= 1 \times 23 \times 4 \times 56 + 7 \times 89. \\
5776 &= 1 + 23 \times 4 \times 56 + 7 \times 89. \\
5777 &= 1^2 + 3^4 + 5 \times 67 \times (8 + 9). \\
5778 &= 12 \times 34 \times 5 + 6 \times 7 \times 89. \\
5779 &= 1234 + 567 \times 8 + 9. \\
5780 &= 12 + 3^4 + 5678 + 9. \\
5781 &= 1 \times 23 + 4^5 + 6 \times 789. \\
5782 &= 1 + 23 + 4^5 + 6 \times 789. \\
5783 &= (1 + 23) \times 4 + 5678 + 9. \\
5784 &= 12 \times 34 + 56 \times (7 + 89). \\
5785 &= 1^2 \times (3 + 4 \times 5 + 6 \times 7) \times 89. \\
5786 &= 1^{234} + 5 \times (6 + 7) \times 89. \\
5787 &= 12^3 + 45 \times 6 \times (7 + 8) + 9. \\
5788 &= 12 + 3^4 + 5 \times 67 \times (8 + 9). \\
5789 &= (1 + 2) \times 34 + 5678 + 9. \\
5790 &= 1^{23} + 4 + 5 \times (6 + 7) \times 89. \\
5791 &= 12 + (3^4 + 5) \times 67 + 8 + 9. \\
5792 &= 1^2 \times 3 + 4 + 5 \times (6 + 7) \times 89. \\
5793 &= 1^2 + 3 + 4 + 5 \times (6 + 7) \times 89. \\
5794 &= 12 \times 3 + 4^5 + 6 \times 789. \\
5795 &= (1 + 2)^3 \times 4 + 5678 + 9. \\
5796 &= 12 \times (3 + 456 + 7 + 8 + 9). \\
5797 &= 1^2 \times 3 \times 4 + 5 \times (6 + 7) \times 89. \\
5798 &= 1 + 2^3 + 4 + 5 \times (6 + 7) \times 89. \\
5799 &= (1 + 2) \times 34 \times 56 + 78 + 9. \\
5800 &= 1 + 2 + 3 \times 4 + 5 \times (6 + 7) \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5731 &= 9 + 87 \times 65 + 4 + 3 \times 21. \\
5732 &= -9 \times 87 + 6 \times 543 \times 2 - 1. \\
5733 &= 9 + 876 \times 5 + 4^3 \times 21. \\
5734 &= 9 \times 8 + 7 + 65 \times (43 \times 2 + 1). \\
5735 &= ((98 \times 7 + 6 \times 5) \times 4 + 3) \times 2 + 1. \\
5736 &= 98 + 7 + 6 + 5^4 \times 3^2 \times 1. \\
5737 &= 98 + 7 + 6 + 5^4 \times 3^2 + 1. \\
5738 &= 9 + 8 \times 76 + 5 \times 4(3 + 2) + 1. \\
5739 &= 9 \times 8 + 7 \times 6 + 5^4 \times 3^2 \times 1. \\
5740 &= 987 + (6 + 5) \times 432 + 1. \\
5741 &= 98 \times 7 \times 6 + 5 \times (4 + 321). \\
5742 &= 9 + 8 \times 7 \times 6 \times (5 + 4 \times 3) + 21. \\
5743 &= 9 \times 8 \times 76 + 54 \times (3 + 2) + 1. \\
5744 &= 9 + 8 \times 7 + (6 + 5^4) \times 3^2 \times 1. \\
5745 &= 98 \times 7 \times 6 + 543 \times (2 + 1). \\
5746 &= (9 + 8) \times (7 + 6 + 54 \times 3 \times 2 + 1). \\
5747 &= (9 + 8) \times (7 + 6 \times (5 + 4) \times 3) \times 2 + 1. \\
5748 &= (9 \times 8 + 7 + 65 \times 43) \times 2 \times 1. \\
5749 &= 9 + 87 \times 65 + 4^3 + 21. \\
5750 &= 9 + 87 \times 65 + 43 \times 2 \times 1. \\
5751 &= 9 + 87 \times 65 + 43 \times 2 + 1. \\
5752 &= 9 + 87 \times (6 + 54 + 3 \times 2) + 1. \\
5753 &= 9 + 87 \times (6 + 5 \times 4 \times 3) + 2 \times 1. \\
5754 &= (9 + 8 + 7 \times 6 + 5 \times 43) \times 21. \\
5755 &= 9 \times 8 + 7 + 6 \times (5^4 + 321). \\
5756 &= (98 + 7 \times 65 \times 4) \times 3 + 2 \times 1. \\
5757 &= (98 + 76 \times 5) \times 4 \times 3 + 21. \\
5758 &= 9 \times 8 + 7 + (6 + 5^4) \times 3^2 \times 1. \\
5759 &= 9 \times 8 + 7 + (6 + 5^4) \times 3^2 + 1. \\
5760 &= 98 + 7 + 65 \times (43 \times 2 + 1). \\
5761 &= 9 \times 8 \times 76 + (5 + 4) \times 32 + 1. \\
5762 &= (9 \times 8 + 7 + 6 + 5) \times 4^3 + 2 \times 1. \\
5763 &= 9 \times 8 \times (7 + 6 \times 5 + 43) + 2 + 1. \\
5764 &= 98 + 7 \times 6 + 5^4 \times 3^2 - 1. \\
5765 &= 98 + 7 \times 6 + 5^4 \times 3^2 \times 1. \\
5766 &= 98 + 7 \times 6 + 5^4 \times 3^2 + 1. \\
5767 &= 9 \times (8 + 7) + 6 + 5^4 \times 3^2 + 1. \\
5768 &= 9 \times (87 \times 6 + 5) + 4(3 + 2) + 1. \\
5769 &= (9 + 876) \times 5 + 4^3 \times 21. \\
5770 &= 9 + (8 + 7 + 6 \times 5) \times 4 \times 32 + 1. \\
5771 &= 9 + (8 \times 7 + 6 + 5) \times 43 \times 2 \times 1. \\
5772 &= 9 + 87 \times (6 + 5 \times 4 \times 3) + 21. \\
5773 &= 9 \times 8 + 76 + 5^4 \times 3^2 \times 1. \\
5774 &= 9 \times 8 + 76 + 5^4 \times 3^2 + 1. \\
5775 &= (98 + 7 \times 65 \times 4) \times 3 + 21. \\
5776 &= 9 + 87 + (6 + 5^4) \times 3^2 + 1. \\
5777 &= 9 + 8 \times 7 \times 6 + 5432 \times 1. \\
5778 &= 9 + 8 \times 7 \times 6 + 5432 + 1. \\
5779 &= 98 + (7 + 6) \times (5 + 432 \times 1). \\
5780 &= (9 + 8) \times (7 + 6 \times 54 + 3^2 \times 1). \\
5781 &= (9 \times 8 + 7 + 6 + 5) \times 4^3 + 21. \\
5782 &= (9 + 87 + 65 \times 43) \times 2 \times 1. \\
5783 &= (9 + 87 + 65 \times 43) \times 2 + 1. \\
5784 &= 9 \times 87 \times 6 + 543 \times 2 \times 1. \\
5785 &= 9 \times 87 \times 6 + 543 \times 2 + 1. \\
5786 &= 9 + 8 \times 7 \times 6 \times 5 + 4^{(3 \times 2)} + 1. \\
5787 &= (98 + (7 + 6) \times 5 \times 43) \times 2 + 1. \\
5788 &= (9 \times 8 + 7) \times (6 \times 5 + 43) + 21. \\
5789 &= 98 \times (7 + 6) + 5 \times 43 \times 21. \\
5790 &= 9 \times (8 + 7) + 65 \times (43 \times 2 + 1). \\
5791 &= (9 \times 8 \times 7 + 654) \times (3 + 2) + 1. \\
5792 &= 9 + 87 \times 65 + 4 \times 32 \times 1. \\
5793 &= 9 + 87 \times 65 + 4 \times 32 + 1. \\
5794 &= 9 \times 8 \times 76 + 5 \times 4^3 + 2 \times 1. \\
5795 &= 9 \times 8 \times 76 + 5 \times 4^3 + 2 + 1. \\
5796 &= 9 \times 8 \times 76 + 54 \times 3 \times 2 \times 1. \\
5797 &= 9 \times 8 \times 76 + 54 \times 3 \times 2 + 1. \\
5798 &= 98 + 76 \times 5 \times (4 \times 3 + 2 + 1). \\
5799 &= 98 + 76 + 5^4 \times 3^2 \times 1. \\
5800 &= 98 + 76 + 5^4 \times 3^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5801 &= (1^2 + 3 \times 45) \times 6 \times 7 + 89. \\
5802 &= 1 + (2 \times 3^4 \times 5 + 6) \times 7 + 89. \\
5803 &= (1 + 2)^3 \times 4 + 5 \times 67 \times (8 + 9). \\
5804 &= 12 + 3 + 4 + 5 \times (6 + 7) \times 89. \\
5805 &= (1 + 23 + 45) \times (6 + 78) + 9. \\
5806 &= 1 + (2 + 3) \times 4 + 5 \times (6 + 7) \times 89. \\
5807 &= 1 \times (2 + 3) \times 4^5 + 678 + 9. \\
5808 &= (1 + 2) \times 34 \times 56 + 7 + 89. \\
5809 &= 12 + 3 \times 4 + 5 \times (6 + 7) \times 89. \\
5810 &= 1 + 2 \times 3 \times 4 + 5 \times (6 + 7) \times 89. \\
5811 &= 1 + (2 \times 3 + 4) \times (5 + 6 \times (7 + 89)). \\
5812 &= 1 \times 23 + 4 + 5 \times (6 + 7) \times 89. \\
5813 &= 1 + 23 + 4 + 5 \times (6 + 7) \times 89. \\
5814 &= 123 + 4 + 5678 + 9. \\
5815 &= 1 \times 2^{(3+4)} + 5678 + 9. \\
5816 &= 1 + 2^{(3+4)} + 5678 + 9. \\
5817 &= 1 \times 2^3 \times 4 + 5 \times (6 + 7) \times 89. \\
5818 &= 1 + 2^3 \times 4 + 5 \times (6 + 7) \times 89. \\
5819 &= 1^2 \times 34 + 5 \times (6 + 7) \times 89. \\
5820 &= 1^2 + 34 + 5 \times (6 + 7) \times 89. \\
5821 &= 1 \times 2 + 34 + 5 \times (6 + 7) \times 89. \\
5822 &= 123 + 4 + 5 \times 67 \times (8 + 9). \\
5823 &= 1 \times 2^{(3+4)} + 5 \times 67 \times (8 + 9). \\
5824 &= 1 \times 2^3 \times (4 \times 56 + 7 \times 8 \times 9). \\
5825 &= 12 \times 3 + 4 + 5 \times (6 + 7) \times 89. \\
5826 &= (12 + 3 \times 45 \times 6) \times 7 + 8 \times 9. \\
5827 &= 1 + (2 + 3 \times 45) \times 6 \times 7 + 8 \times 9. \\
5828 &= 1 \times (2 + 3) \times 4^5 + 6 + 78 \times 9. \\
5829 &= 1 + (2 + 3) \times 4^5 + 6 + 78 \times 9. \\
5830 &= 1 + (23 + 4 \times (5 + 6)) \times (78 + 9). \\
5831 &= 12 \times 3 \times 4 + 5678 + 9. \\
5832 &= 12 \times 3 \times 45 + 6 \times 78 \times 9. \\
5833 &= 1 + 2 \times 3 \times (45 \times 6 + 78 \times 9). \\
5834 &= 1^2 \times (3^4 + 5) \times 67 + 8 \times 9. \\
5835 &= 1^2 + (3^4 + 5) \times 67 + 8 \times 9. \\
5836 &= 1 \times 2 + (3^4 + 5) \times 67 + 8 \times 9. \\
5837 &= 1 + 2 + (3^4 + 5) \times 67 + 8 \times 9. \\
5838 &= (1 + 2 + 34 + 5) \times (67 + 8 \times 9). \\
5839 &= 12 \times 3 \times 4 + 5 \times 67 \times (8 + 9). \\
5840 &= (1 + 2 + 3 + 4) \times (567 + 8 + 9). \\
5841 &= 123 \times (4 + 5) + 6 \times 789. \\
5842 &= 1 + (2 \times 3)^4 + 567 \times 8 + 9. \\
5843 &= (1 \times 2 + 3 \times 45) \times 6 \times 7 + 89. \\
5844 &= 12 \times 3^4 + 56 \times (78 + 9). \\
5845 &= (12 + 3) \times 4 + 5 \times (6 + 7) \times 89. \\
5846 &= 12 + (3^4 + 5) \times 67 + 8 \times 9. \\
5847 &= 1 + (23 + 45 + 6) \times (7 + 8 \times 9). \\
5848 &= 1^{23} \times 4^5 + 67 \times 8 \times 9. \\
5849 &= 1^{23} + 4^5 + 67 \times 8 \times 9. \\
5850 &= 1 + 2 \times 3^4 + 5678 + 9. \\
5851 &= 1^2 \times 3 + 4^5 + 67 \times 8 \times 9. \\
5852 &= 1^2 + 3 + 4^5 + 67 \times 8 \times 9. \\
5853 &= 1 \times 2 \times 34 + 5 \times (6 + 7) \times 89. \\
5854 &= 1 \times 23 \times 4 \times 56 + 78 \times 9. \\
5855 &= 1 + 23 \times 4 \times 56 + 78 \times 9. \\
5856 &= 1 \times 2^3 + 4^5 + 67 \times 8 \times 9. \\
5857 &= 1 + 2^3 + 4^5 + 67 \times 8 \times 9. \\
5858 &= 1 + 2 \times 3^4 + 5 \times 67 \times (8 + 9). \\
5859 &= 1 \times 23 \times 45 + 67 \times 8 \times 9. \\
5860 &= 1 + 23 \times 45 + 67 \times 8 \times 9. \\
5861 &= 12 + 3^4 \times (5 + 67) + 8 + 9. \\
5862 &= 12 + (34 + 56) \times (7 \times 8 + 9). \\
5863 &= 12 + 3 + 4^5 + 67 \times 8 \times 9. \\
5864 &= 1 \times 2 + 3 \times (4 + 5 \times 6 \times (7 \times 8 + 9)). \\
5865 &= 12 \times (3 + 45 + 6 + 7) \times 8 + 9. \\
5866 &= 1^2 \times 3^4 + 5 \times (6 + 7) \times 89. \\
5867 &= 1^2 + 3^4 + 5 \times (6 + 7) \times 89. \\
5868 &= 123 \times 4 + 56 \times (7 + 89). \\
5869 &= 1 + 23 \times 4 \times (56 + 7) + 8 \times 9. \\
5870 &= 1 \times 2 + ((3^4 + 5 + 6) \times 7 + 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5801 &= (98 + 7 + 65 \times 43) \times 2 + 1. \\
5802 &= 9 \times 8 \times 76 + 5 + 4 + 321. \\
5803 &= 98 \times (7 \times 6 + 5 + 4 \times 3) + 21. \\
5804 &= 9 + 8 \times 765 - 4 - 321. \\
5805 &= 9 + (8 + 76) \times (5 + 43 + 21). \\
5806 &= 9 \times (8 + 7) \times (6 + 5) + 4321. \\
5807 &= (9 + 8) \times 76 + 5 \times 43 \times 21. \\
5808 &= 9 + 87 \times 65 + (4 \times 3)^2 \times 1. \\
5809 &= 9 + 87 \times 65 + (4 \times 3)^2 + 1. \\
5810 &= 98 + 7 \times (6 \times 5 + 4) \times (3 + 21). \\
5811 &= 9 + 87 \times 65 + (4 + 3) \times 21. \\
5812 &= 98 \times 7 + 6 + 5 \times 4(3 + 2) \times 1. \\
5813 &= 9 \times 8 \times 76 + 5 \times 4 + 321. \\
5814 &= 9 \times (8 \times 76 + 5 + 4 \times 3 + 21). \\
5815 &= 9 \times 8 + (7 + 6 + 5^4) \times 3^2 + 1. \\
5816 &= (9 + 87 + 6) \times (54 + 3) + 2 \times 1. \\
5817 &= (9 + 87 + 6) \times (54 + 3) + 2 + 1. \\
5818 &= 9 \times 8 \times (76 + 5) + 4 + 3 - 21. \\
5819 &= 9 \times (8 + 7 + 6 + 5^4) + 3 + 2 \times 1. \\
5820 &= (9 + 8 \times 7 \times 6 + 5^4) \times 3 \times 2 \times 1. \\
5821 &= 9 \times (8 + 7 + 6 + 5^4) + 3 \times 2 + 1. \\
5822 &= (9 + 8 \times 7 \times 6) \times 5 + 4^{(3 \times 2)} + 1. \\
5823 &= (9 + 8 \times 7) \times 6 + 5432 + 1. \\
5824 &= 9 + (8 + 7 + 6 + 5^4) \times 3^2 + 1. \\
5825 &= 9 + 8 \times (7 + 6 \times 5 \times 4 \times 3 \times 2 \times 1). \\
5826 &= (98 + 7 + 6 \times 5) \times 43 + 21. \\
5827 &= 987 \times 6 - (5 + 43) \times 2 + 1. \\
5828 &= ((9 + 8) \times 7 + 65 \times 43) \times 2 \times 1. \\
5829 &= (9 + 87 + 6) \times 54 + 321. \\
5830 &= (9 + 8 + 7 \times 6 \times (5 + 4^3)) \times 2 \times 1. \\
5831 &= (9 + 8) \times (7 + 6 + 5 + 4 + 321). \\
5832 &= 9 \times (8 + 76 + 543 + 21). \\
5833 &= 9 + 8 \times (7 + 6 \times 5 \times 4 \times 3 \times 2 + 1). \\
5834 &= 9 \times 8 \times 7 + (6 \times 5 + 43)^2 + 1. \\
5835 &= (9 + 87 + 6) \times (54 + 3) + 21. \\
5836 &= -98 \times 7 + 6543 - 21. \\
5837 &= 9 \times 8 \times (7 \times (6 + 5) + 4) + 3 + 2 \times 1. \\
5838 &= 9 + 87 \times (6 + 54 + 3 \times 2 + 1). \\
5839 &= 9 \times 8 + 7 + 6 \times 5 \times 4^3 \times (2 + 1). \\
5840 &= 98 + (7 + 6 + 5^4) \times 3^2 \times 1. \\
5841 &= 98 + (7 + 6 + 5^4) \times 3^2 + 1. \\
5842 &= 9 \times (8 \times 76 + 5) + 4 + 321. \\
5843 &= 9 \times 8 \times (76 + 5) + 4 + 3 \times 2 + 1. \\
5844 &= 98 \times 7 \times 6 + 54 \times 32 \times 1. \\
5845 &= 98 \times 7 \times 6 + 54 \times 32 + 1. \\
5846 &= 9 \times 8 \times (76 + 5) + 4 + 3^2 + 1. \\
5847 &= 9 \times 8 \times 76 + 54 + 321. \\
5848 &= (9 + 8) \times (7 + (6 + 54 \times 3) \times 2 + 1). \\
5849 &= 9 + 8 \times (7 \times 6 + 5^4 + 3 \times 21). \\
5850 &= 9 \times 8 \times 76 + 54 \times (3 \times 2 + 1). \\
5851 &= (9 + 8 \times 7 + 65) \times (43 + 2) + 1. \\
5852 &= 9 \times 8 \times (76 + 5) + 4 \times (3 + 2) \times 1. \\
5853 &= 9 \times 8 \times (76 + 5) + 4 \times (3 + 2) + 1. \\
5854 &= -98 \times 7 + 6543 - 2 - 1. \\
5855 &= 9 + 8 + 7 \times 6 \times ((5 + 4^3) \times 2 + 1). \\
5856 &= (98 + 76 + 5 + 4) \times 32 \times 1. \\
5857 &= (98 + 76 + 5 + 4) \times 32 + 1. \\
5858 &= 987 \times 6 - 5 + 4 - 3 \times 21. \\
5859 &= (9 + 8 + 7 + 65 + 4) \times 3 \times 21. \\
5860 &= 9 \times 8 \times (76 + 5) + 4 + 3 + 21. \\
5861 &= (9 \times 8 + 765) \times (4 + 3) + 2 \times 1. \\
5862 &= (9 \times 8 + 765) \times (4 + 3) + 2 + 1. \\
5863 &= 9 \times 8 \times (76 + 5) + 4 + 3^{(2+1)}. \\
5864 &= 9 \times 8 \times (7 \times (6 + 5) + 4) + 32 \times 1. \\
5865 &= (9 \times 8) \times (76 + 5) + 4 \times 3 + 21. \\
5866 &= (9 + 8) \times ((7 + 6) \times 5 + 4) \times (3 + 2) + 1. \\
5867 &= 9 + 8 + (7 + 6 + 5) \times (4 + 321). \\
5868 &= (987 + 6) \times 5 + 43 \times 21. \\
5869 &= 9 \times 8 \times 7 \times (6 + 5) + 4 + 321. \\
5870 &= 98 \times 7 + (65 + 4 + 3)^2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5871 &= 1 \times 23 + 4^5 + 67 \times 8 \times 9. \\
5872 &= 1 + 23 + 4^5 + 67 \times 8 \times 9. \\
5873 &= (1 + 2 \times 345 + 6 \times 7) \times 8 + 9. \\
5874 &= (12 + 3 + 4 + 5 + 6 \times 7) \times 89. \\
5875 &= 1^2 + 3 \times (4 + 5 + 6 + 7) \times 89. \\
5876 &= (1 \times 2 + 3) \times 4^5 + (6 + 78) \times 9. \\
5877 &= 1 \times 23 \times 4 + 5 \times (6 + 7) \times 89. \\
5878 &= 1 + 23 \times 4 + 5 \times (6 + 7) \times 89. \\
5879 &= 1 \times 2 - 3^4 - 5 + 67 \times 89. \\
5880 &= 123 \times 45 + 6 \times 7 \times 8 + 9. \\
5881 &= 123 + 4^5 + 6 \times 789. \\
5882 &= 1 + 2 \times (3 \times 4 \times 5 \times 6 + 7) \times 8 + 9. \\
5883 &= 123 + (4 + 56) \times (7 + 89). \\
5884 &= 12 \times 3 + 4^5 + 67 \times 8 \times 9. \\
5885 &= 1 \times 23 \times 4 \times (56 + 7) + 89. \\
5886 &= 1 + 23 \times 4 \times (56 + 7) + 89. \\
5887 &= (1 + 2) \times 34 + 5 \times (6 + 7) \times 89. \\
5888 &= 1 \times 23 \times 4 \times (5 + 6 \times 7 + 8 + 9). \\
5889 &= (1 + 2) \times (34 \times 56 + 7 \times 8) + 9. \\
5890 &= 1^2 + (3 + 4) \times 56 \times (7 + 8) + 9. \\
5891 &= 1 \times 2 + (3 + 4) \times 56 \times (7 + 8) + 9. \\
5892 &= 1 + 2 + (3 + 4) \times 56 \times (7 + 8) + 9. \\
5893 &= (1 + 2)^3 \times 4 + 5 \times (6 + 7) \times 89. \\
5894 &= -1 - 23 - 45 + 67 \times 89. \\
5895 &= 1^{23} \times 45 \times (6 \times 7 + 89). \\
5896 &= 1^{23} + 45 \times (6 \times 7 + 89). \\
5897 &= (1 + 23 + 4) \times 5 \times 6 \times 7 + 8 + 9. \\
5898 &= 12 + 3 \times (45 \times 6 \times 7 + 8 \times 9). \\
5899 &= 1^2 + 3 + 45 \times (6 \times 7 + 89). \\
5900 &= 1 \times 2 + 3 + 45 \times (6 \times 7 + 89). \\
5901 &= 1 + 2 + 3 + 45 \times (6 \times 7 + 89). \\
5902 &= 1 + 2 \times 3 + 45 \times (6 \times 7 + 89). \\
5903 &= 1 \times 2^3 + 45 \times (6 \times 7 + 89). \\
5904 &= 1 \times 234 \times 5 + 6 \times 789. \\
5905 &= 1 + 234 \times 5 + 6 \times 789. \\
5906 &= 1 \times 2 + 3^4 \times (5 + 67) + 8 \times 9. \\
5907 &= 1 + 2 + 3^4 \times (5 + 67) + 8 \times 9. \\
5908 &= 1 \times 23 \times 4 \times 5 \times (6 + 7) - 8 \times 9. \\
5909 &= (1 + 234) \times 5 + 6 \times 789. \\
5910 &= (12 + 3^4) \times 56 + 78 \times 9. \\
5911 &= 1 + 2 \times 3 \times (4 + (5 + (6 + 7) \times 8) \times 9). \\
5912 &= 123 + 4 + 5 \times (6 + 7) \times 89. \\
5913 &= 12^3 + 45 \times (6 + 78 + 9). \\
5914 &= 1234 + 5 \times (6 + 7) \times 8 \times 9. \\
5915 &= (1^2 \times 3 + 4) \times (56 + 789). \\
5916 &= 123 \times 4 \times (5 + 6) + 7 \times 8 \times 9. \\
5917 &= 1 \times 2 + (3 + 4) \times (56 + 789). \\
5918 &= 1 \times 23 + 45 \times (6 \times 7 + 89). \\
5919 &= 1 + 23 + 45 \times (6 \times 7 + 89). \\
5920 &= (1 \times 2 + 3) \times (45 + 67 \times (8 + 9)). \\
5921 &= 1 \times 234 + 5678 + 9. \\
5922 &= 1 + 234 + 5678 + 9. \\
5923 &= 1 \times 2 + 3^4 \times (5 + 67) + 89. \\
5924 &= 1 + 2 + 3^4 \times (5 + 67) + 89. \\
5925 &= 123 \times 45 + 6 \times (7 \times 8 + 9). \\
5926 &= 1 + (2 + 3) \times (4 + 5 + 6) \times (7 + 8 \times 9). \\
5927 &= 12 + (3 + 4) \times (56 + 789). \\
5928 &= 12 + (3 \times 4 + 56) \times (78 + 9). \\
5929 &= 12 \times 3 \times 4 + 5 \times (6 + 7) \times 89. \\
5930 &= 1 + 234 + 5 \times 67 \times (8 + 9). \\
5931 &= 123 \times (4 + 5) + 67 \times 8 \times 9. \\
5932 &= 1 \times 2 \times ((3^4 \times 5 + 6) \times 7 + 89). \\
5933 &= 12 + 3^4 \times (5 + 67) + 89. \\
5934 &= 12 + 3^4 \times (5 \times (6 + 7) + 8) + 9. \\
5935 &= 1 + 2 - 34 \times 5 + 678 \times 9. \\
5936 &= 1 \times 2 \times (3 + 4) \times (5 \times 67 + 89). \\
5937 &= (12 + 34 + 5 \times 6) \times 78 + 9. \\
5938 &= 1^2 + 3 \times (45 \times 6 \times 7 + 89). \\
5939 &= (1 \times 2 + 3) \times (4^5 + 6) + 789. \\
5940 &= 12 \times 3 \times (4 + 5 + 67 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5871 &= 98 \times 7 + (65 + 4 + 3)^2 + 1. \\
5872 &= 9 \times 8 \times (76 + 5) + 4 \times (3^2 + 1). \\
5873 &= 9 + 8 \times (76 + 5^4 + 32 \times 1). \\
5874 &= 9 \times (8 \times 76 + 5 + 4) + 321. \\
5875 &= (9 + 8 + 7 + 65) \times (4^3 + 2) + 1. \\
5876 &= (9 \times 8 + 76 \times 5) \times (4 + 3^2) \times 1. \\
5877 &= 9 \times 8 \times (76 + 5) + 43 + 2 \times 1. \\
5878 &= 9 \times 8 \times (76 + 5) + 43 + 2 + 1. \\
5879 &= (9 + 8) \times 7 + 6 \times 5 \times 4^3 \times (2 + 1). \\
5880 &= 98 \times (7 + 6 + 5 + 4 \times 3) \times 2 \times 1. \\
5881 &= 9 + 8 \times (76 + 5^4 + 32 + 1). \\
5882 &= 9 \times (8 + 7 \times 6) + 5432 \times 1. \\
5883 &= 9 \times (8 + 7 \times 6) + 5432 + 1. \\
5884 &= 9 + (8 + 76 + 5) \times (4^3 + 2) + 1. \\
5885 &= 987 \times 6 + 5 - 43 + 2 - 1. \\
5886 &= (9 + 8 \times 7 \times 6) \times (5 + 4 \times 3) + 21. \\
5887 &= 9 \times ((8 + 7 + 6) \times 5 + 4) \times 3 \times 2 + 1. \\
5888 &= ((9 + 87) \times 6 \times 5 + 4^3) \times 2 \times 1. \\
5889 &= 9 + 8 \times 7 \times (6 + 5 + 4) \times (3 \times 2 + 1). \\
5890 &= 98 \times (7 \times 6 + 5) + 4 \times 321. \\
5891 &= (9 + 8 \times (7 + 6 \times 5 \times 4 \times 3)) \times 2 + 1. \\
5892 &= 9 \times (8 \times (76 + 5) + 4) + 3 + 21. \\
5893 &= (9 + 8 \times 7 + 6) \times (5 \times 4 + 3 \times 21). \\
5894 &= 98 + 7 \times 6 \times (5 + 4^3) \times 2 \times 1. \\
5895 &= 9 \times (87 \times 6 + 5 + 4 \times 32 \times 1). \\
5896 &= 9 \times 8 \times (76 + 5) + 43 + 21. \\
5897 &= 9 \times 8 + 7 \times (6 + 5 \times 4) \times 32 + 1. \\
5898 &= (987 + 654 \times 3) \times 2 \times 1. \\
5899 &= 9 \times 8 \times (76 + 5) + 4 + 3 \times 21. \\
5900 &= 9 \times (8 + 7) \times 6 \times 5 + 43^2 + 1. \\
5901 &= (9 \times 87 + 6 + 54) \times (3 \times 2 + 1). \\
5902 &= 9 \times 8 \times 76 + 5 \times 43 \times 2 \times 1. \\
5903 &= 9 \times 8 \times 76 + 5 \times 43 \times 2 + 1. \\
5904 &= 9 \times 8 \times (7 + 65 + 4 + 3 \times 2 \times 1). \\
5905 &= 9 + 8 + 7 \times (6 + 5 \times 4 + 3)^2 + 1. \\
5906 &= (9 \times 8 + 7) \times 6 + 5432 \times 1. \\
5907 &= (9 \times 8 + 7) \times 6 + 5432 + 1. \\
5908 &= 9 \times 8 \times 76 + 5 + 432 - 1. \\
5909 &= 9 \times 8 \times 76 + 5 + 432 \times 1. \\
5910 &= 9 \times 8 \times 76 + 5 + 432 + 1. \\
5911 &= 9 + 8 + 7 + 654 \times 3^2 + 1. \\
5912 &= (9 \times 8 + (7 + 6) \times 5) \times 43 + 21. \\
5913 &= 9 \times 8 \times 7 \times 6 + (5 + 4) \times 321. \\
5914 &= 9 \times 87 + 6 + 5 \times (4^3 + 2) + 1. \\
5915 &= (9 \times (87 + 6) + 5) \times (4 + 3) + 21. \\
5916 &= 9 + 87 \times 65 + 4 \times 3 \times 21. \\
5917 &= 9 \times 8 \times (76 + 5) + 4^3 + 21. \\
5918 &= 9 \times 8 \times (76 + 5) + 43 \times 2 \times 1. \\
5919 &= 9 \times 8 \times (76 + 5) + 43 \times 2 + 1. \\
5920 &= (9 + 8 \times 7 + 6 \times 5 \times 4) \times 32 \times 1. \\
5921 &= (9 + 8 \times 7 + 6 \times 5 \times 4) \times 32 + 1. \\
5922 &= (9 \times 8 + 7 + 6 + 5 + 4) \times 3 \times 21. \\
5923 &= 98 + 7 \times (6 + 5 \times 4) \times 32 + 1. \\
5924 &= 9 \times 87 \times 6 + (5 \times (4 + 3))^2 + 1. \\
5925 &= 9 + 87 \times (6 + 5 \times 4 \times 3 + 2 \times 1). \\
5926 &= 9 + 87 \times (6 + 5 \times 4 \times 3 + 2) + 1. \\
5927 &= (9 \times 8 + 7) \times (6 + 5 + 4^3) + 2 \times 1. \\
5928 &= 9 \times 8 \times (76 + 5) + 4 \times (3 + 21). \\
5929 &= 9 + 8 \times (7 + 6 \times 5) \times 4 \times (3 + 2 \times 1). \\
5930 &= 9 + 8 \times (7 + 6 \times 5) \times 4 \times (3 + 2) + 1. \\
5931 &= 9 \times (8 \times 76 + 5 + 43 + 2 + 1). \\
5932 &= 9 + 8 + 7 \times 65 \times (4 + 3^2 + 1). \\
5933 &= 9 + 8 + 7 \times 65 \times (4 + 3^2) + 1. \\
5934 &= 9 \times (8 \times 7 \times (6 + 5) + 43) + 2 + 1. \\
5935 &= 9 \times (8 + 7) \times 6 + 5 \times (4^3 + 2) + 1. \\
5936 &= 987 \times 6 + 5 + 4 + 3 + 2 \times 1. \\
5937 &= 987 \times 6 + 5 + 4 + 3 + 2 + 1. \\
5938 &= 987 \times 6 + 5 + 4 + 3 \times 2 + 1. \\
5939 &= 9 + 8 \times (7 + 6) \times (54 + 3) + 2 \times 1. \\
5940 &= 987 \times 6 + 5 + 4 + 3^2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
5941 &= 1 \times 23 \times 4 \times 56 + 789. \\
5942 &= 1 + 23 \times 4 \times 56 + 789. \\
5943 &= (1^2 + 3)^4 + 5678 + 9. \\
5944 &= 1^2 + 3 + 4 \times (5 + 6) \times (7 + 8) \times 9. \\
5945 &= 1 + 2^3 \times (4 \times 5 \times 6 + 7 \times 89). \\
5946 &= (1 + 2) \times (3 + 45 \times 6 \times 7 + 89). \\
5947 &= 1 \times 2 \times 3^4 + 5 \times (6 + 7) \times 89. \\
5948 &= (1 + 23 \times 4) \times (56 + 7) + 89. \\
5949 &= (1 + 2)^3 \times 45 + 6 \times 789. \\
5950 &= (1 + 23 + 4 \times 5 + 6) \times 7 \times (8 + 9). \\
5951 &= 1 + 2 \times (3 + 4) \times 5 \times (6 + 7 + 8 \times 9). \\
5952 &= 12 \times 34 + (5 + 6) \times 7 \times 8 \times 9. \\
5953 &= (12 \times 34 + 5 \times 67) \times 8 + 9. \\
5954 &= 12 \times 3 - 45 + 67 \times 89. \\
5955 &= (1 + 2) \times (34 \times 56 + 78) + 9. \\
5956 &= (1^2 + 3) \times (4 + (5 + 6) \times (7 + 8) \times 9). \\
5957 &= (1 + 2 + 34) \times (5 + 67 + 89). \\
5958 &= (12 \times 3^4 + 5) \times 6 + 7 + 89. \\
5959 &= ((1 + 23) \times 4 + 5) \times (6 \times 7 + 8 + 9). \\
5960 &= 12^3 + 4 \times 5 + 6 \times 78 \times 9. \\
5961 &= 1 \times 2 \times (3 + 45) \times (6 + 7 \times 8) + 9. \\
5962 &= 12 + 34 \times (56 + 7 \times (8 + 9)). \\
5963 &= 1^{2345} \times 67 \times 89. \\
5964 &= 1^{2345} + 67 \times 89. \\
5965 &= 1 \times (2 + 3) \times (4 \times (5 \times 6 + 7) \times 8 + 9). \\
5966 &= 1^2 \times 3 + (4 + 56 + 7) \times 89. \\
5967 &= 1^2 + 3 + (4 + 56 + 7) \times 89. \\
5968 &= 1^{234} \times 5 + 67 \times 89. \\
5969 &= 1^{234} + 5 + 67 \times 89. \\
5970 &= 1 + 2 \times 3 + (4 + 56 + 7) \times 89. \\
5971 &= 123 + 4^5 + 67 \times 8 \times 9. \\
5972 &= 1^{23} \times 4 + 5 + 67 \times 89. \\
5973 &= 1234 + 5 + 6 \times 789. \\
5974 &= 1 - 2 + 3 + 4 + 5 + 67 \times 89. \\
5975 &= 1^2 \times 3 + 4 + 5 + 67 \times 89. \\
5976 &= 1^2 + 3 + 4 + 5 + 67 \times 89. \\
5977 &= 1 \times 2 + 3 + 4 + 5 + 67 \times 89. \\
5978 &= 1 + 2 + 3 + 4 + 5 + 67 \times 89. \\
5979 &= 1 + 2 \times 3 + 4 + 5 + 67 \times 89. \\
5980 &= 1^2 \times 3 \times 4 + 5 + 67 \times 89. \\
5981 &= 1 + 2^3 + 4 + 5 + 67 \times 89. \\
5982 &= 1 \times 2 + 3 \times 4 + 5 + 67 \times 89. \\
5983 &= 1 + 2 + 3 \times 4 + 5 + 67 \times 89. \\
5984 &= 1^{23} + 4 \times 5 + 67 \times 89. \\
5985 &= 12^3 + 45 + 6 \times 78 \times 9. \\
5986 &= 1^2 \times 3 + 4 \times 5 + 67 \times 89. \\
5987 &= 12 + 3 + 4 + 5 + 67 \times 89. \\
5988 &= 1 + 2 \times (3 + 4 + 5) + 67 \times 89. \\
5989 &= 1 + 2 + 3 + 4 \times 5 + 67 \times 89. \\
5990 &= 1 + 2 \times 3 + 4 \times 5 + 67 \times 89. \\
5991 &= 1^2 + 3 \times (4 + 5) + 67 \times 89. \\
5992 &= 12 + 3 \times 4 + 5 + 67 \times 89. \\
5993 &= 1 + 2 + 3 \times (4 + 5) + 67 \times 89. \\
5994 &= 1 \times 234 \times 5 + 67 \times 8 \times 9. \\
5995 &= 1 + 234 \times 5 + 67 \times 8 \times 9. \\
5996 &= 1 + 23 + 4 + 5 + 67 \times 89. \\
5997 &= (12 + 3^4) \times 56 + 789. \\
5998 &= 12 + 3 + 4 \times 5 + 67 \times 89. \\
5999 &= (1 + 2)^3 + 4 + 5 + 67 \times 89. \\
6000 &= 1 \times 2^3 \times 4 + 5 + 67 \times 89. \\
6001 &= 1 + 2 + (3 + 4) \times 5 + 67 \times 89. \\
6002 &= 1^2 \times 34 + 5 + 67 \times 89. \\
6003 &= 1^2 + 34 + 5 + 67 \times 89. \\
6004 &= 1 \times 2 + 34 + 5 + 67 \times 89. \\
6005 &= 1 + 2 + 34 + 5 + 67 \times 89. \\
6006 &= 1 \times 23 + 4 \times 5 + 67 \times 89. \\
6007 &= 1 + 23 + 4 \times 5 + 67 \times 89. \\
6008 &= 12 \times 3 + 4 + 5 + 67 \times 89. \\
6009 &= 1^{23} + 45 + 67 \times 89. \\
6010 &= 12 + (3 + 4) \times 5 + 67 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
5941 &= 987 \times 6 + 5 + 4 + 3^2 + 1. \\
5942 &= 9 \times 8 \times 7 + 6 + 5432 \times 1. \\
5943 &= 9 \times 8 \times 7 + 6 + 5432 + 1. \\
5944 &= 987 \times 6 + 54 - 32 \times 1. \\
5945 &= 9 + 8 + 76 \times (54 + 3 + 21). \\
5946 &= 9 + 8 \times (7 + 6) \times 54 + 321. \\
5947 &= 987 \times 6 + 5 \times 4 + 3 + 2 \times 1. \\
5948 &= 987 \times 6 + 5 \times 4 + 3 + 2 + 1. \\
5949 &= 987 \times 6 + 5 \times 4 + 3 \times 2 + 1. \\
5950 &= 9 \times (8 \times 76 + 5) + 432 + 1. \\
5951 &= 987 \times 6 + 5 + 4 \times 3 \times 2 \times 1. \\
5952 &= 987 \times 6 + 5 + 4 \times 3 \times 2 + 1. \\
5953 &= 9 + 8 + 7 + (65 + 4 \times 3)^2 \times 1. \\
5954 &= 9 + 8 + 7 + (65 + 4 \times 3)^2 + 1. \\
5955 &= 987 \times 6 + 5 + 4 + 3 + 21. \\
5956 &= 987 \times 6 + (5 + 4 \times 3) \times 2 \times 1. \\
5957 &= 987 \times 6 + (5 + 4 \times 3) \times 2 + 1. \\
5958 &= 9 \times 87 \times 6 + 5 \times 4 \times 3 \times 21. \\
5959 &= 9 \times 8 \times 76 + 54 \times 3^2 + 1. \\
5960 &= 987 \times 6 + 5 + 4 \times 3 + 21. \\
5961 &= 9 \times 8 \times (76 + 5) + 4 \times 32 + 1. \\
5962 &= 9 + (8 \times 7 + 6) \times (5 + 43) \times 2 + 1. \\
5963 &= 9 + 87 \times 6 + 5432 \times 1. \\
5964 &= 9 + 87 \times 6 + 5432 + 1. \\
5965 &= 9 \times 8 + 7 + 654 \times 3^2 \times 1. \\
5966 &= 987 \times 6 + 5 \times 4 + 3 + 21. \\
5967 &= 9 + (8 \times 76 + 54) \times 3^2 \times 1. \\
5968 &= 987 \times 6 + 5 \times (4 + 3 + 2) + 1. \\
5969 &= 987 \times 6 + (5 \times 4 + 3) \times 2 + 1. \\
5970 &= 987 \times 6 + (5 + 4) \times 3 + 21. \\
5971 &= 98 \times 7 \times 6 + 5 + 43^2 + 1. \\
5972 &= 987 \times 6 + 5 + 43 + 2 \times 1. \\
5973 &= 987 \times 6 + 5 + 43 + 2 + 1. \\
5974 &= 987 \times 6 + 5 \times 4 + 32 \times 1. \\
5975 &= 987 \times 6 + 5 \times 4 + 32 + 1. \\
5976 &= 9 \times 8 \times 7 \times (6 + 5) + 432 \times 1. \\
5977 &= 987 \times 6 + 5 + (4 + 3)^2 + 1. \\
5978 &= 987 \times 6 + 5 \times (4 + 3) + 21. \\
5979 &= 9 \times 8 \times (76 + 5) + (4 + 3) \times 21. \\
5980 &= 98 \times (7 + 6 + 5 + 43) + 2 \times 1. \\
5981 &= 987 \times 6 + 54 + 3 + 2 \times 1. \\
5982 &= 987 \times 6 + 54 + 3 + 2 + 1. \\
5983 &= 987 \times 6 + 54 + 3 \times 2 + 1. \\
5984 &= 987 \times 6 + 5 \times 4 \times 3 + 2 \times 1. \\
5985 &= 987 \times 6 + 54 + 3^2 \times 1. \\
5986 &= 987 \times 6 + 54 + 3^2 + 1. \\
5987 &= 9 \times 87 \times 6 + 5 + 4 \times 321. \\
5988 &= 987 \times 6 + 5 \times (4 + 3^2) + 1. \\
5989 &= 9 + 87 \times 65 + 4 + 321. \\
5990 &= 9 \times (8 \times 76 + 54) + 32 \times 1. \\
5991 &= 987 \times 6 + 5 + 43 + 21. \\
5992 &= 987 \times 6 + 5 \times (4 + 3) \times 2 \times 1. \\
5993 &= 98 \times 7 \times 6 + 5^4 \times 3 + 2 \times 1. \\
5994 &= 987 \times 6 + 5 + 4 + 3 \times 21. \\
5995 &= (98 + 7 + 6) \times (5 + 4) \times 3 \times 2 + 1. \\
5996 &= 9 \times (8 + 7 \times 6 \times 5 + 4) \times 3 + 2 \times 1. \\
5997 &= 987 \times 6 + 5 \times (4 \times 3 + 2 + 1). \\
5998 &= -9 + 87 \times (65 + 4) + 3 + 2 - 1. \\
5999 &= 98 \times (7 + 6 + 5 + 43) + 21. \\
6000 &= 987 \times 6 + 54 + 3 + 21. \\
6001 &= (98 + 7 + 6) \times 54 + 3 \times 2 + 1. \\
6002 &= 9 \times 8 \times 76 + (5 \times 4 + 3)^2 + 1. \\
6003 &= 987 \times 6 + 5 \times 4 \times 3 + 21. \\
6004 &= 987 \times 6 + (5 + 4) \times 3^2 + 1. \\
6005 &= 987 \times 6 + 5 \times 4 + 3 \times 21. \\
6006 &= 9 + 876 + 5 \times 4^3 + 2 + 1. \\
6007 &= 9 + 87 \times 65 + (4 + 3)^{2+1}. \\
6008 &= 987 \times 6 + 54 + 32 \times 1. \\
6009 &= 987 \times 6 + 54 + 32 + 1. \\
6010 &= 9 + 8 \times 7 \times 6 \times 5 + 4321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6011 &= 1^2 \times 3 + 45 + 67 \times 89. \\
6012 &= 123 \times 45 + 6 \times 78 + 9. \\
6013 &= 1 \times 2 + 3 + 45 + 67 \times 89. \\
6014 &= 12 + 34 + 5 + 67 \times 89. \\
6015 &= 1 + 2 \times 3 + 45 + 67 \times 89. \\
6016 &= 1 \times 2^3 + 45 + 67 \times 89. \\
6017 &= 1 + 2^3 + 45 + 67 \times 89. \\
6018 &= 123 + 45 \times (6 \times 7 + 89). \\
6019 &= 12 \times 3 + 4 \times 5 + 67 \times 89. \\
6020 &= 1 + 234 + 5 \times (6 + 7) \times 89. \\
6021 &= 12^3 + (4 + 5) \times (6 \times 78 + 9). \\
6022 &= 1 + (2^{(3+4)} + 5 + 67 \times 8) \times 9. \\
6023 &= 12 + 3 + 45 + 67 \times 89. \\
6024 &= 1^2 + 3 \times 4 \times 5 + 67 \times 89. \\
6025 &= 1 \times 2 + 3 \times 4 \times 5 + 67 \times 89. \\
6026 &= 1 + 2 + 3 \times 4 \times 5 + 67 \times 89. \\
6027 &= 12 + (3 + 4) \times (5 + 6) \times 78 + 9. \\
6028 &= (12 + 3) \times 4 + 5 + 67 \times 89. \\
6029 &= (12 + 3) \times (4 + 56 \times 7) + 89. \\
6030 &= (1 + 2 + 3 + 4) \times (5 + 6 + 7 \times 8) \times 9. \\
6031 &= 1 \times 23 + 45 + 67 \times 89. \\
6032 &= 1 + 23 + 45 + 67 \times 89. \\
6033 &= 1 \times 2 \times (3 + 4) \times 5 + 67 \times 89. \\
6034 &= 1 + 2 \times (3 + 4) \times 5 + 67 \times 89. \\
6035 &= 12 + 3 \times 4 \times 5 + 67 \times 89. \\
6036 &= 1 \times 2 \times 34 + 5 + 67 \times 89. \\
6037 &= 1 + 2 \times 34 + 5 + 67 \times 89. \\
6038 &= (1 + 2 + 3 \times 4) \times 5 + 67 \times 89. \\
6039 &= (1 + 2)^3 \times 45 + 67 \times 8 \times 9. \\
6040 &= 1^2 + (3 \times 45 + 67 \times 8) \times 9. \\
6041 &= 1 \times 2 \times (34 + 5) + 67 \times 89. \\
6042 &= 1 + 2 \times (34 + 5) + 67 \times 89. \\
6043 &= (1^2 + 3) \times 4 \times 5 + 67 \times 89. \\
6044 &= 12 \times 3 + 45 + 67 \times 89. \\
6045 &= 123 \times 45 + 6 + 7 \times 8 \times 9. \\
6046 &= 1 \times 2^{(3 \times 4)} + 5 \times 6 \times (7 \times 8 + 9). \\
6047 &= 1 + 2^{(3 \times 4)} + 5 \times 6 \times (7 \times 8 + 9). \\
6048 &= 1 \times 2 \times 3 \times (4 + 5 \times 6 + 78) \times 9. \\
6049 &= 1^2 \times 3^4 + 5 + 67 \times 89. \\
6050 &= 1^2 + 3^4 + 5 + 67 \times 89. \\
6051 &= 1 \times 2 + 3^4 + 5 + 67 \times 89. \\
6052 &= 1 + 2 + 3^4 + 5 + 67 \times 89. \\
6053 &= 1 + 23 \times 4 \times 5 \times (6 + 7) + 8 \times 9. \\
6054 &= 1 + 2 \times (3 + 45 \times 67) + 8 + 9. \\
6055 &= 1 + 2 \times 3 \times (4 \times 5 \times (6 \times 7 + 8) + 9). \\
6056 &= 1 \times (2 + 3) \times 4^5 + (6 + 7) \times 8 \times 9. \\
6057 &= 123 \times 45 + 6 \times (78 + 9). \\
6058 &= (12 + 3 + 4) \times 5 + 67 \times 89. \\
6059 &= 1 \times 2 \times (3 + 45) + 67 \times 89. \\
6060 &= 1 \times 23 \times 4 + 5 + 67 \times 89. \\
6061 &= 12 + 3^4 + 5 + 67 \times 89. \\
6062 &= 1 + 2 \times 34 \times (5 + 6 + 78) + 9. \\
6063 &= 1234 + 5 + 67 \times 8 \times 9. \\
6064 &= (1 + 23) \times 4 + 5 + 67 \times 89. \\
6065 &= 12 \times (3 + 4 + 5) \times 6 \times 7 + 8 + 9. \\
6066 &= (1 + 2 + 3 \times 45 + 67 \times 8) \times 9. \\
6067 &= 1 + 2 \times 3^4 \times (5 \times 6 + 7) + 8 \times 9. \\
6068 &= (1 + 2) \times (3 + 4) \times 5 + 67 \times 89. \\
6069 &= 1 \times 23 \times 4 \times 5 \times (6 + 7) + 89. \\
6070 &= (1 + 2) \times 34 + 5 + 67 \times 89. \\
6071 &= 1 + 2 \times (3 + 45 \times 67 + 8 + 9). \\
6072 &= (1 + 2)^3 \times 4 \times 56 + 7 + 8 + 9. \\
6073 &= (1 + 2 \times 345 + 67) \times 8 + 9. \\
6074 &= 1 \times 2 + 3 + (45 + 6) \times 7 \times (8 + 9). \\
6075 &= 1 + 2 + 3 + (45 + 6) \times 7 \times (8 + 9). \\
6076 &= (1 + 2)^3 \times 4 + 5 + 67 \times 89. \\
6077 &= 1 \times 2^3 + (45 + 6) \times 7 \times (8 + 9). \\
6078 &= 1 \times 2 \times 3 \times (4 \times 56 + 789). \\
6079 &= 1 + 2 \times 3 \times (4 \times 56 + 789). \\
6080 &= 123 \times 45 + 67 \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6011 &= 98 \times (7 + 6 \times (5 + 4)) + 32 + 1. \\
6012 &= 987 \times 6 + 5 + 4^3 + 21. \\
6013 &= 987 \times 6 + 5 + 43 \times 2 + 1. \\
6014 &= 987 \times 6 + 5 + 43 \times 2 + 1. \\
6015 &= (9 + 8 \times 7) \times 6 + 5^4 \times 3^2 \times 1. \\
6016 &= 98 \times 7 + (6 \times 5 + 43)^2 + 1. \\
6017 &= 9 \times 8 \times 76 + 543 + 2 \times 1. \\
6018 &= 9 \times 8 \times 76 + 543 + 2 + 1. \\
6019 &= 987 \times 6 + (5 + 43) \times 2 + 1. \\
6020 &= 9 + 8 + (7 \times 6 + 5^4) \times 3^2 \times 1. \\
6021 &= 9 + 87 \times (65 + 4) + 3^2 \times 1. \\
6022 &= 9 + 87 \times (65 + 4) + 3^2 + 1. \\
6023 &= 987 \times 6 + 5 \times 4 \times (3 + 2) + 1. \\
6024 &= 9 \times 8 \times (7 + 6) \times 5 + 4^3 \times 21. \\
6025 &= 9 + 87 + (65 + 4 \times 3)^2 \times 1. \\
6026 &= (98 + 7 + 6) \times 54 + 32 \times 1. \\
6027 &= 9 \times (8 + 7 + 654) + 3 + 2 + 1. \\
6028 &= 9 \times (8 + 7 + 654) + 3 \times 2 + 1. \\
6029 &= 9 \times 8 \times 7 + 65 \times (4^3 + 21). \\
6030 &= 9 + (8 + 7 + 654) \times 3^2 \times 1. \\
6031 &= 9 + (8 + 7 + 654) \times 3^2 + 1. \\
6032 &= -9 + 8 \times 76 + 5432 + 1. \\
6033 &= 9 + 8 + (7 \times 6 + 5) \times 4^3 \times 2 \times 1. \\
6034 &= 9 \times (87 + 6) \times 5 + 43^2 \times 1. \\
6035 &= 9 \times (87 + 6) \times 5 + 43^2 + 1. \\
6036 &= 9 \times 8 \times 76 + 543 + 21. \\
6037 &= 987 \times 6 + (54 + 3) \times 2 + 1. \\
6038 &= (9 \times 8 + 7) \times 65 + 43 \times 21. \\
6039 &= 987 \times 6 + 54 + 3 \times 21. \\
6040 &= (9 + 8 \times 76 + 54) \times 3^2 + 1. \\
6041 &= 98 \times (7 + 6 \times (5 + 4)) + 3 \times 21. \\
6042 &= 987 \times 6 + 5 \times 4 \times 3 \times 2 \times 1. \\
6043 &= 987 \times 6 + 5 \times 4 \times 3 \times 2 + 1. \\
6044 &= 9 + 87 \times (65 + 4) + 32 \times 1. \\
6045 &= 9 + 87 \times (65 + 4) + 32 + 1. \\
6046 &= (9 + 8 \times 7 \times 6) \times 5 + 4321. \\
6047 &= 9 \times 87 \times 6 + 5 + 4^3 \times 21. \\
6048 &= 98 + (7 + 654) \times 3^2 + 1. \\
6049 &= 9 + 8 \times 76 + 5432 \times 1. \\
6050 &= 9 + 8 \times 76 + 5432 + 1. \\
6051 &= 9 \times 8 \times (7 + 65 + 4 \times 3) + 2 + 1. \\
6052 &= (9 + 8) \times ((76 + 5) \times 4 + 32 \times 1). \\
6053 &= 9 \times (8 + 7 + 654) + 32 \times 1. \\
6054 &= 9 \times (8 + 7 + 654) + 32 + 1. \\
6055 &= 987 \times 6 + 5 + 4^3 \times 2 \times 1. \\
6056 &= 987 \times 6 + 5 + 4^3 \times 2 + 1. \\
6057 &= (98 + 7 + 6) \times 54 + 3 \times 21. \\
6058 &= 9 + 8 \times 7 \times (6 + 5 + 43) \times 2 + 1. \\
6059 &= 987 \times 6 + 5 + 4 \times (32 + 1). \\
6060 &= 987 \times 6 + (5 + 4^3) \times 2 \times 1. \\
6061 &= (98 \times 7 + 6 \times 54) \times 3 \times 2 + 1. \\
6062 &= (98 + 7) \times 6 + 5432 \times 1. \\
6063 &= (98 + 7) \times 6 + 5432 + 1. \\
6064 &= 9 \times (8 + 7) + (65 + 4 \times 3)^2 \times 1. \\
6065 &= 9 + 8 + (76 + 5 \times 4) \times 3 \times 21. \\
6066 &= 987 \times 6 + (5 + 4 + 3)^2 \times 1. \\
6067 &= 987 \times 6 + (5 + 4 + 3)^2 + 1. \\
6068 &= (9 \times 8 + 76) \times (5 + 4 + 32 \times 1). \\
6069 &= 9 \times 8 \times (7 + 65 + 4 \times 3) + 21. \\
6070 &= (9 + 8) \times 7 \times (6 + 5 \times (4 + 3 + 2)) + 1. \\
6071 &= 987 \times 6 + 5 + (4 \times 3)^2 \times 1. \\
6072 &= 987 \times 6 + 5 + (4 \times 3)^2 + 1. \\
6073 &= (9 \times 8 \times 7 \times 6 + 5 + 4 + 3) \times 2 + 1. \\
6074 &= 987 \times 6 + 5 + (4 + 3) \times 21. \\
6075 &= 9 + 87 \times (65 + 4) + 3 \times 21. \\
6076 &= 98 \times (7 + 6 \times 5 + 4 \times 3 \times 2 + 1). \\
6077 &= 987 \times 6 + 5 \times (4 + 3^{(2+1)}). \\
6078 &= (987 + 6 + 5 \times 4) \times 3 \times 2 \times 1. \\
6079 &= (987 + 6 + 5 \times 4) \times 3 \times 2 + 1. \\
6080 &= (9 + 8 \times 7 + 6 \times 5) \times (43 + 21).
\end{aligned}$$

Increasing order

$$\begin{aligned}
6081 &= 1 \times 23 \times (4 \times 5 + 6 + 7) \times 8 + 9. \\
6082 &= 1 + 23 \times (4 \times 5 + 6 + 7) \times 8 + 9. \\
6083 &= 1 \times 2345 + 6 \times 7 \times 89. \\
6084 &= 1 + 2345 + 6 \times 7 \times 89. \\
6085 &= 1^2 + (34 + 5) \times (67 + 89). \\
6086 &= 123 + (4 + 56 + 7) \times 89. \\
6087 &= 12 + (34 + 5 + 6) \times (7 + 8) \times 9. \\
6088 &= (1 + 2 \times 3 \times 4) \times 5 + 67 \times 89. \\
6089 &= 1 + 2^{(3+4)} \times (5 + 6 \times 7) + 8 \times 9. \\
6090 &= (1 \times 2 + 3 \times 4 + 56) \times (78 + 9). \\
6091 &= 1 + (2 + 3 \times 4 + 56) \times (78 + 9). \\
6092 &= 1 \times 23 + (45 + 6) \times 7 \times (8 + 9). \\
6093 &= 123 \times 45 + (6 + 7 \times 8) \times 9. \\
6094 &= 1 + 234 \times (5 + 6 + 7 + 8) + 9. \\
6095 &= 12 \times 34 + 5678 \times 9. \\
6096 &= 1^2 \times 3 \times 4^3 + 6 \times 7 \times 8 \times 9. \\
6097 &= 1 + 2^3 \times (4 + 56 + 78 \times 9). \\
6098 &= 1 \times 2 + 3 \times 4^5 + 6 \times 7 \times 8 \times 9. \\
6099 &= 1^2 + 3 \times 45 + 67 \times 89. \\
6100 &= 1 \times 2 + 3 \times 45 + 67 \times 89. \\
6101 &= 1 + 2 + 3 \times 45 + 67 \times 89. \\
6102 &= 1^{2345} \times 678 \times 9. \\
6103 &= 1^{2345} + 678 \times 9. \\
6104 &= (1^2 + 3)^4 \times 5 + 67 \times 8 \times 9. \\
6105 &= 12 + 3 \times (4 \times 5 + 6) \times 78 + 9. \\
6106 &= 1234 + 56 \times (78 + 9). \\
6107 &= 1^{234} \times 5 + 678 \times 9. \\
6108 &= 12 + 3 \times 4^3 + 6 \times 7 \times 8 \times 9. \\
6109 &= 12^3 + 4 + 56 \times 78 + 9. \\
6110 &= 12 + 3 \times 45 + 67 \times 89. \\
6111 &= 1^{23} \times 4 + 5 + 678 \times 9. \\
6112 &= 12 \times 3 \times 4 + 5 + 67 \times 89. \\
6113 &= (1 + 2)^3 \times 4 \times 56 + 7 \times 8 + 9. \\
6114 &= 1^2 \times 3 + 4 + 5 + 678 \times 9. \\
6115 &= 1^2 + 3 + 4 + 5 + 678 \times 9. \\
6116 &= 1 \times 2 + 3 + 4 + 5 + 678 \times 9. \\
6117 &= 1 + 2 + 3 + 4 + 5 + 678 \times 9. \\
6118 &= 1 + 2 \times 3 + 4 + 5 + 678 \times 9. \\
6119 &= 1^2 \times 3 \times 4 + 5 + 678 \times 9. \\
6120 &= 1 + 2^3 + 4 + 5 + 678 \times 9. \\
6121 &= 1 \times 2 + 3 \times 4 + 5 + 678 \times 9. \\
6122 &= 1 + 2 + 3 \times 4 + 5 + 678 \times 9. \\
6123 &= 1^{23} + 4 \times 5 + 678 \times 9. \\
6124 &= 1 + 2^3 \times 4 \times 5 + 67 \times 89. \\
6125 &= 1^2 \times 3 + 4 \times 5 + 678 \times 9. \\
6126 &= 12 + 3 + 4 + 5 + 678 \times 9. \\
6127 &= 1 \times 2 + 3 + 4 \times 5 + 678 \times 9. \\
6128 &= 1 + 2 + 3 + 4 \times 5 + 678 \times 9. \\
6129 &= 1 + 2 \times 3 + 4 \times 5 + 678 \times 9. \\
6130 &= 1 \times 2^3 + 4 \times 5 + 678 \times 9. \\
6131 &= 123 + 45 + 67 \times 89. \\
6132 &= 1 + 2 \times 3 \times 4 + 5 + 678 \times 9. \\
6133 &= 1^2 \times 34 \times 5 + 67 \times 89. \\
6134 &= 1^2 + 34 \times 5 + 67 \times 89. \\
6135 &= 1 \times 2 + 34 \times 5 + 67 \times 89. \\
6136 &= 1 + 2 + 34 \times 5 + 67 \times 89. \\
6137 &= 12 + 3 + 4 \times 5 + 678 \times 9. \\
6138 &= (1 + 2)^3 + 4 + 5 + 678 \times 9. \\
6139 &= 1 \times 2^3 \times 4 + 5 + 678 \times 9. \\
6140 &= 1 + 2^3 \times 4 + 5 + 678 \times 9. \\
6141 &= 1^2 \times 34 + 5 + 678 \times 9. \\
6142 &= 1^2 + 34 + 5 + 678 \times 9. \\
6143 &= 1 \times 2 + 34 + 5 + 678 \times 9. \\
6144 &= 1 + 2 + 34 + 5 + 678 \times 9. \\
6145 &= 1 \times 23 + 4 \times 5 + 678 \times 9. \\
6146 &= 1 + 23 + 4 \times 5 + 678 \times 9. \\
6147 &= 12 \times 3 + 4 + 5 + 678 \times 9. \\
6148 &= 1^{23} + 45 + 678 \times 9. \\
6149 &= 12 + (3 + 4) \times 5 + 678 \times 9. \\
6150 &= 1^2 \times 3 + 45 + 678 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6081 &= 98 \times (7 \times 6 + 5 \times 4) + 3 + 2 \times 1. \\
6082 &= 98 \times (7 \times 6 + 5 \times 4) + 3 + 2 + 1. \\
6083 &= (9 \times 8 \times 7 \times 6 + 5 + 4 \times 3) \times 2 + 1. \\
6084 &= 9 \times 8 \times (76 + 5) + 4 \times 3 \times 21. \\
6085 &= 98 \times (7 + 6 + 5) + 4321. \\
6086 &= 987 \times 6 + 54 \times 3 + 2 \times 1. \\
6087 &= 987 \times 6 + 54 \times 3 + 2 + 1. \\
6088 &= 9 \times 8 + (7 \times 6 + 5) \times 4 \times 32 \times 1. \\
6089 &= 9 \times 8 + (7 \times 6 + 5) \times 4 \times 32 + 1. \\
6090 &= (98 + 7) \times (6 + 5 \times 4 + 32 \times 1). \\
6091 &= (98 + 7) \times (6 + 5 \times 4 + 32) + 1. \\
6092 &= (98 + 76) \times 5 \times (4 + 3) + 2 \times 1. \\
6093 &= 9 \times (8 \times 76 + 5 + 43 + 21). \\
6094 &= 9 \times 8 \times 7 + 65 \times 43 \times 2 + 1. \\
6095 &= 9 \times 8 \times 7 + 65 \times 43 \times 2 + 1. \\
6096 &= 9 + 87 \times 65 + 432 \times 1. \\
6097 &= 9 + 87 \times 65 + 432 + 1. \\
6098 &= -9 + 8 \times 765 - 4 \times 3 - 2 + 1. \\
6099 &= (9 \times 8 + 7) \times 6 + 5^4 \times 3^2 \times 1. \\
6100 &= (9 \times 8 + 7) \times 6 + 5^4 \times 3^2 + 1. \\
6101 &= 98 + (7 \times 6 + 5^4) \times 3^2 \times 1. \\
6102 &= 987 \times 6 + 5 \times 4 \times 3^2 \times 1. \\
6103 &= 987 \times 6 + 5 \times 4 \times 3^2 + 1. \\
6104 &= 9 \times 8 \times 76 + 5^4 + 3 \times 2 + 1. \\
6105 &= 987 \times 6 + 54 \times 3 + 21. \\
6106 &= 9 \times 8 \times 76 + 5^4 + 3^2 + 1. \\
6107 &= 9 \times 8 \times 76 + 5^4 + 3^2 + 1. \\
6108 &= 98 \times (7 \times 6 + 5 \times 4) + 32 \times 1. \\
6109 &= 98 \times (7 \times 6 + 5 \times 4) + 32 + 1. \\
6110 &= (9 + 8 \times 7) \times (6 \times 5 + 43 + 21). \\
6111 &= 9 \times (8 + 7 + 654 + 3^2 + 1). \\
6112 &= 9 \times 8 \times 76 + 5 \times 4^3 \times 2 \times 1. \\
6113 &= 9 \times 8 \times 76 + 5 \times 4^3 \times 2 + 1. \\
6114 &= 98 + (7 \times 6 + 5) \times 4^3 \times 2 \times 1. \\
6115 &= 98 + (7 \times 6 + 5) \times 4^3 \times 2 + 1. \\
6116 &= 9 + 8 \times 765 - 4 \times 3 - 2 + 1. \\
6117 &= 9 \times 8 \times 76 + 5 \times 43 \times (2 + 1). \\
6118 &= ((98 + 76) \times 5 + 4) \times (3 \times 2 + 1). \\
6119 &= 987 \times 6 + 5 + 4^3 \times (2 + 1). \\
6120 &= 9 \times 8 + 7 \times 6 \times (5 + 43) \times (2 + 1). \\
6121 &= 9 \times 8 \times 76 + 5^4 + 3 + 21. \\
6122 &= (9 + 87 + 6) \times 5 \times 4 \times 3 + 2 \times 1. \\
6123 &= (9 + 87 + 6) \times 5 \times 4 \times 3 + 2 + 1. \\
6124 &= 98 \times 7 + 6 + 5432 \times 1. \\
6125 &= 98 \times 7 + 6 + 5432 + 1. \\
6126 &= (987 + 6 \times 5 + 4) \times 3 \times 2 \times 1. \\
6127 &= 9 \times 8 + 7 + 6 \times (5 + 43) \times 21. \\
6128 &= 9 + 8 + (76 + 5 \times 43) \times 21. \\
6129 &= 9 \times 8 \times 76 + 5^4 + 32 \times 1. \\
6130 &= 9 \times 8 \times 76 + 5^4 + 32 + 1. \\
6131 &= (9 + 8 \times 7) \times (6 \times 5 + 4^3) + 21. \\
6132 &= 9 \times 8 \times 76 + 5 \times 4 \times (32 + 1). \\
6133 &= 9 + 8 \times 765 + 4 + 3 - 2 - 1. \\
6134 &= 98 \times 7 + 6 \times (5 + 43 \times 21). \\
6135 &= 9 \times 8 \times 7 + 6 + 5^4 \times 3^2 \times 1. \\
6136 &= 9 \times 8 \times 7 + 6 + 5^4 \times 3^2 + 1. \\
6137 &= 9 + 8 + (7 + 65) \times (4^3 + 21). \\
6138 &= 9 + 8 \times 765 + 4 + 3 + 2 \times 1. \\
6139 &= 987 \times 6 + 5 \times 43 + 2 \times 1. \\
6140 &= 987 \times 6 + 5 \times 43 + 2 + 1. \\
6141 &= (9 + 87 + 6) \times 5 \times 4 \times 3 + 21. \\
6142 &= 9 + 8 \times 765 + 4 + 3^2 \times 1. \\
6143 &= 9 + 8 \times 765 + 4 + 3^2 + 1. \\
6144 &= 9 + 8 \times 765 + 4 \times 3 + 2 + 1. \\
6145 &= (9 \times 8 \times 7 \times 6 + 5 + 43) \times 2 + 1. \\
6146 &= (9 + 8) \times 7 \times 6 + 5432 \times 1. \\
6147 &= (9 + 8) \times 7 \times 6 + 5432 + 1. \\
6148 &= 987 \times 6 + 5 \times (43 + 2) + 1. \\
6149 &= 9 + 8 \times 765 + 4 \times (3 + 2 \times 1). \\
6150 &= 9 + 8 \times 765 + 4 \times (3 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6151 &= 1^2 + 3 + 45 + 678 \times 9. \\
6152 &= 1 \times 2 + 3 + 45 + 678 \times 9. \\
6153 &= 12 + 34 + 5 + 678 \times 9. \\
6154 &= 1 + 2 \times 3 + 45 + 678 \times 9. \\
6155 &= 1 \times 2^3 + 45 + 678 \times 9. \\
6156 &= 1 + 2^3 + 45 + 678 \times 9. \\
6157 &= (1 + 2 \times 3 + 4) \times 5 + 678 \times 9. \\
6158 &= 12 \times 3 + 4 \times 5 + 678 \times 9. \\
6159 &= 1^2 \times 3 \times 4 + (5 + 678) \times 9. \\
6160 &= 1 + 2^3 + 4 + (5 + 678) \times 9. \\
6161 &= 1 \times 2 + 3 \times 4 + (5 + 678) \times 9. \\
6162 &= 12 + 3 + 45 + 678 \times 9. \\
6163 &= 1^2 + 3 \times 4 \times 5 + 678 \times 9. \\
6164 &= 123 \times 45 + 6 + 7 \times 89. \\
6165 &= 1 + 2 + 3 \times 4 \times 5 + 678 \times 9. \\
6166 &= 12 + 3 + 4 + (5 + 678) \times 9. \\
6167 &= 12 \times (3 \times 4 + 5) + 67 \times 89. \\
6168 &= 1^{23} \times 4^5 \times 6 + 7 + 8 + 9. \\
6169 &= 1^{23} + 4^5 \times 6 + 7 + 8 + 9. \\
6170 &= 1 \times 23 + 45 + 678 \times 9. \\
6171 &= 1 + 23 + 45 + 678 \times 9. \\
6172 &= 1^2 + 3 + 4^3 \times 6 + 7 + 8 + 9. \\
6173 &= 1 \times 2 + 3 + 4^5 \times 6 + 7 + 8 + 9. \\
6174 &= 12 + 3 \times 4 \times 5 + 678 \times 9. \\
6175 &= 1 \times 2 \times 34 + 5 + 678 \times 9. \\
6176 &= 1 + 2 \times 34 + 5 + 678 \times 9. \\
6177 &= 1 + 2^3 + 4^5 \times 6 + 7 + 8 + 9. \\
6178 &= (1 + 2)^3 + 4 + (5 + 678) \times 9. \\
6179 &= 123 \times 4 + 5678 + 9. \\
6180 &= 1 \times 2 \times (34 + 5) + 678 \times 9. \\
6181 &= 1^2 \times 34 + (5 + 678) \times 9. \\
6182 &= 1^2 + 34 + (5 + 678) \times 9. \\
6183 &= 12 \times 3 + 45 + 678 \times 9. \\
6184 &= 1 + 2 + 34 + (5 + 678) \times 9. \\
6185 &= ((12 + 3) \times (45 + 6) + 7) \times 8 + 9. \\
6186 &= 1^2 \times 3 + (4 + 5 + 678) \times 9. \\
6187 &= 123 \times 4 + 5 \times 67 \times (8 + 9). \\
6188 &= 1^2 \times 3^4 + 5 + 678 \times 9. \\
6189 &= 1^2 + 3^4 + 5 + 678 \times 9. \\
6190 &= 1 \times 2 + 3^4 + 5 + 678 \times 9. \\
6191 &= 1 + 2 + 3^4 + 5 + 678 \times 9. \\
6192 &= 1 + 23 + 4^5 \times 6 + 7 + 8 + 9. \\
6193 &= (12 + 34) \times 5 + 67 \times 89. \\
6194 &= 1 \times 2 \times (3 + (4 \times 5 + 6) \times 7 \times (8 + 9)). \\
6195 &= (1 + 2)^3 + 4^5 \times 6 + 7 + 8 + 9. \\
6196 &= 1 + (2 \times (3 \times 4^5 + 6 + 7 + 8) + 9). \\
6197 &= (12 + 3 + 4) \times 5 + 678 \times 9. \\
6198 &= 123 \times 4 \times 5 + 6 \times 7 \times 89. \\
6199 &= 1 \times 23 \times 4 + 5 + 678 \times 9. \\
6200 &= 1234 \times 5 + 6 + 7 + 8 + 9. \\
6201 &= 123 \times 4 \times (5 + 6) + 789. \\
6202 &= 1 \times 234 + 5 + 67 \times 89. \\
6203 &= 1 + 234 + 5 + 67 \times 89. \\
6204 &= 12 \times 3 + 4^5 \times 6 + 7 + 8 + 9. \\
6205 &= 1 + (2 \times 3 + 4^5) \times 6 + 7 + 8 + 9. \\
6206 &= 1 \times 23 + (4 + 5 + 678) \times 9. \\
6207 &= 1 + 23 + (4 + 5 + 678) \times 9. \\
6208 &= 1 \times 2^3 \times (4 \times 5 + (6 + 78) \times 9). \\
6209 &= 1^{23} \times 4^5 \times 6 + 7 \times 8 + 9. \\
6210 &= 1^{23} + 4^5 \times 6 + 7 \times 8 + 9. \\
6211 &= (1 + 2) \times 3^4 + 5 + 67 \times 89. \\
6212 &= 1^2 \times 3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6213 &= 1^2 + 3 + 4^3 \times 6 + 7 \times 8 + 9. \\
6214 &= 1 \times 2 + 3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6215 &= 1 + 2 + 3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6216 &= 1 + 2 \times 3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6217 &= 1 \times 2^3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6218 &= 1 + 2^3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6219 &= (1^2 + 3 + 4 + 5 + 678) \times 9. \\
6220 &= 1 \times 2 \times (3^4 + 5 + 6 \times 7 \times 8 \times 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6151 &= 9 + (8 + 765 \times 4 + 3) \times 2 \times 1. \\
6152 &= 987 \times 6 + 5 \times (43 + 2 + 1). \\
6153 &= 9 + 8 \times 765 + 4 \times 3 \times 2 \times 1. \\
6154 &= 9 + 8 \times 765 + 4 \times 3 \times 2 + 1. \\
6155 &= 9 \times 876 - 54 \times 32 - 1. \\
6156 &= 9 + 87 \times 6 + 5^4 \times 3^2 \times 1. \\
6157 &= 9 + 8 \times 765 + 4 + 3 + 21. \\
6158 &= 987 \times 6 + 5 \times 43 + 21. \\
6159 &= 9 \times 8 \times 7 + 65 \times (43 \times 2 + 1). \\
6160 &= 9 \times 8 \times 76 + 5^4 + 3 \times 21. \\
6161 &= (9 + 8 + 765 \times 4 + 3) \times 2 + 1. \\
6162 &= 9 + 8 \times 765 + 4 \times 3 + 21. \\
6163 &= (9 \times 8 + 7 \times 6) \times 54 + 3 \times 2 + 1. \\
6164 &= (9 \times 8 + 7) \times (6 + 5 \times 4) \times 3 + 2 \times 1. \\
6165 &= 9 + 8 \times 765 + 4 + 32 \times 1. \\
6166 &= 9 + 8 \times 765 + 4 + 32 + 1. \\
6167 &= 987 \times 6 + 5 \times (4 + 3)^2 \times 1. \\
6168 &= 987 \times 6 + 5 \times (4 + 3)^2 + 1. \\
6169 &= 9 + 8 \times 765 + 4 \times (3^2 + 1). \\
6170 &= 9 + 8 \times 7 \times (65 + 43 + 2) + 1. \\
6171 &= 987 + (65 + 4 + 3)^2 \times 1. \\
6172 &= 987 + (65 + 4 + 3)^2 + 1. \\
6173 &= 9 + 8 + 76 \times (5 + 4) \times 3^2 \times 1. \\
6174 &= 9 + 8 \times 765 + 43 + 2 \times 1. \\
6175 &= 9 + 8 \times 765 + 43 + 2 + 1. \\
6176 &= 9 + (8 \times 76 \times 5 + 43) \times 2 + 1. \\
6177 &= 9 + 8 \times (7 \times 6 + 5 \times 43) \times (2 + 1). \\
6178 &= 9 + 8 \times 765 + (4 + 3)^2 \times 1. \\
6179 &= 987 \times 6 + 5 + 4 \times 3 \times 21. \\
6180 &= 9 \times 8 \times 7 + 6 \times (5^4 + 321). \\
6181 &= 9 + 87 + ((6 + 5 \times 4) \times 3)^2 + 1. \\
6182 &= (9 \times 8 \times 7 + 6 + 5) \times 4 \times 3 + 2 \times 1. \\
6183 &= 9 \times 8 \times (76 + 5 + 4) + 3 \times 21. \\
6184 &= 9 \times 8 \times 7 + (6 + 5^4) \times 3^2 + 1. \\
6185 &= 9 + 8 \times (765 + 4) + 3 + 21. \\
6186 &= (9 \times 8 \times 7 \times 6 + 5 + 4^3) \times 2 \times 1. \\
6187 &= 9 + 8 \times (765 + 4 + 3) + 2 \times 1. \\
6188 &= 9 \times (8 + 76) + 5432 \times 1. \\
6189 &= 9 \times (8 + 76) + 5432 + 1. \\
6190 &= 9 \times (8 \times 7 + 6 + 5^4) + 3 \times 2 + 1. \\
6191 &= 9 + 8 + 7 \times (6 \times 5 + 4 \times 3) \times 21. \\
6192 &= 987 \times 6 + 54 \times (3 + 2) \times 1. \\
6193 &= 9 + 8 \times 765 + 43 + 21. \\
6194 &= 9 + 8 \times (765 + 4) + 32 + 1. \\
6195 &= 9 + 8 \times 765 + 4^3 + 2 \times 1. \\
6196 &= 9 + 8 \times 765 + 4 + 3 \times 21. \\
6197 &= 9 + (876 + 5) \times (4 + 3) + 21. \\
6198 &= 9 + 8 \times (7 \times 6 + (5 + 4)^3) + 21. \\
6199 &= (9 \times (8 \times 7 + 6 \times 5) \times 4 + 3) \times 2 + 1. \\
6200 &= (9 \times (8 + 7) + 65) \times (4 + 3^{(2+1)}). \\
6201 &= (9 \times 8 \times 7 + 6 + 5) \times 4 \times 3 + 21. \\
6202 &= 9 + 8 \times (76 \times 5 + 4 + 3) \times 2 + 1. \\
6203 &= 9 + 8 \times (7 + 6 + 5) \times 43 + 2 \times 1. \\
6204 &= 9 + 8 \times (7 + 6 + 5) \times 43 + 2 + 1. \\
6205 &= (9 + 8) \times (7 \times 6 + 5 \times 4^3 + 2 + 1). \\
6206 &= 9 + 8 \times (765 + 4 + 3) + 21. \\
6207 &= 9 \times 8 \times 76 + 5 \times (4 + 3) \times 21. \\
6208 &= (98 + 76 + 5 \times 4) \times 32 \times 1. \\
6209 &= (98 + 76 + 5 \times 4) \times 32 + 1. \\
6210 &= 987 \times 6 + (5 + 4) \times 32 \times 1. \\
6211 &= 987 \times 6 + (5 + 4) \times 32 + 1. \\
6212 &= 987 \times 6 + (5 + 4 \times 3)^2 + 1. \\
6213 &= (9 \times 8 + 7 + 65) \times 43 + 21. \\
6214 &= 9 + 8 \times 765 + 4^3 + 21. \\
6215 &= 9 + 8 \times 765 + 43 \times 2 \times 1. \\
6216 &= 9 + 8 \times 765 + 43 \times 2 + 1. \\
6217 &= 9 + 8 \times (765 + 4 + 3 \times 2 + 1). \\
6218 &= 9 + (8 \times 76 \times 5 + 4^3) \times 2 + 1. \\
6219 &= (9 \times 8 + 7 \times 6) \times 54 + 3 \times 21. \\
6220 &= (9 + 8 \times 76 + 5) \times (4 + 3 + 2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
6221 &= (1 + 2) \times (3^4 + 5) + 67 \times 89. \\
6222 &= 123 \times 45 + 678 + 9. \\
6223 &= 1 + 2 \times 3 \times 4 \times 5 + 678 \times 9. \\
6224 &= 12 + 3 + 4^5 \times 6 + 7 \times 8 + 9. \\
6225 &= (1 \times 2 + 3) \times (456 + 789). \\
6226 &= 1^2 \times 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6227 &= 1^2 + 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6228 &= 1 \times 2 + 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6229 &= 1 \times 2 \times 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6230 &= 1 + 2 \times 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6231 &= 1^{23} \times 4^5 \times 6 + 78 + 9. \\
6232 &= 1^{23} + 4^5 \times 6 + 78 + 9. \\
6233 &= 1 \times 2 \times 3 \times 45 + 67 \times 89. \\
6234 &= 123 + 4 + 5 + 678 \times 9. \\
6235 &= 1 + 23 \times 45 \times 6 + 7 + 8 + 9. \\
6236 &= 1 \times 2 + 3 + 4^5 \times 6 + 78 + 9. \\
6237 &= 1^2 \times 3 \times 45 + 678 \times 9. \\
6238 &= 12 + 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6239 &= 1 \times 2 + 3 \times 45 + 678 \times 9. \\
6240 &= 1 + 2 + 3 \times 45 + 678 \times 9. \\
6241 &= 1234 \times 5 + 6 + 7 \times 8 + 9. \\
6242 &= (1 + 23 + 4) \times 5 + 678 \times 9. \\
6243 &= 123 \times 45 + 6 + 78 \times 9. \\
6244 &= 1^2 + 3 + 4^5 \times 6 + 7 + 89. \\
6245 &= 123 + 4 \times 5 + 678 \times 9. \\
6246 &= 12 + 3 + 4^5 \times 6 + 78 + 9. \\
6247 &= 1 + 23 + 4^5 \times 6 + 7 + 8 \times 9. \\
6248 &= 1 \times 2^3 + 4^5 \times 6 + 7 + 89. \\
6249 &= 12 + 3 \times 45 + 678 \times 9. \\
6250 &= (1 + 2)^3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6251 &= 12 \times 3 \times 4 + 5 + 678 \times 9. \\
6252 &= 12 \times 34 \times 5 + 6 \times 78 \times 9. \\
6253 &= 12 + (3 + 4^5) \times 6 + 7 + 8 \times 9. \\
6254 &= 1234 \times 5 + 67 + 8 + 9. \\
6255 &= 1234 \times 5 + 6 + 7 + 8 \times 9. \\
6256 &= 1^{23} + 45 \times (67 + 8 \times 9). \\
6257 &= 12 \times (3^4 + 5) \times 6 + 7 \times 8 + 9. \\
6258 &= 1 \times 2 \times 3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
6259 &= 12 \times 3 + 4^5 \times 6 + 7 + 8 \times 9. \\
6260 &= 1 \times 2 + 3 + 45 \times (67 + 8 \times 9). \\
6261 &= 12 + 3 \times 4 \times 5 \times (6 + 7) \times 8 + 9. \\
6262 &= 1 + 2 \times 3 + 45 \times (67 + 8 \times 9). \\
6263 &= 1234 \times 5 + 6 + 78 + 9. \\
6264 &= 1 + 23 + 4^5 \times 6 + 7 + 89. \\
6265 &= 1^{23} + (45 + 6 \times 7) \times 8 \times 9. \\
6266 &= 12 + 3^4 \times (5 + 6) \times 7 + 8 + 9. \\
6267 &= 12 \times 3 + 4^5 \times 6 + 78 + 9. \\
6268 &= 1 + (2 \times 3 + 4^5) \times 6 + 78 + 9. \\
6269 &= 1 \times 2 \times 3^4 + 5 + 678 \times 9. \\
6270 &= 123 + 45 + 678 \times 9. \\
6271 &= 1 + (2 + 3 + 4^5) \times 6 + 7 + 89. \\
6272 &= 1234 \times 5 + 6 + 7 + 89. \\
6273 &= 1^2 + 34 \times 5 + 678 \times 9. \\
6274 &= 1 \times 2 + 34 \times 5 + 678 \times 9. \\
6275 &= 1 + 2 + 34 \times 5 + 678 \times 9. \\
6276 &= 12 \times 3 + 4^5 \times 6 + 7 + 89. \\
6277 &= 12^3 + 4 + 567 \times 8 + 9. \\
6278 &= 1 \times 23 + 45 \times (67 + 8 \times 9). \\
6279 &= 1 + 23 + 45 \times (67 + 8 \times 9). \\
6280 &= 1 + (2^3 + 4^5) \times 6 + 78 + 9. \\
6281 &= (1 + 23 \times 45) \times 6 + 7 \times 8 + 9. \\
6282 &= (1^2 + 3) \times 45 + 678 \times 9. \\
6283 &= 1 \times 2 \times 3 \times 4^5 + 67 + 8 \times 9. \\
6284 &= 12 + 34 \times 5 + 678 \times 9. \\
6285 &= 1^2 \times 3 + (4 \times 5 + 678) \times 9. \\
6286 &= 1^2 + 3 + (4 \times 5 + 678) \times 9. \\
6287 &= 12 \times 3 \times (4 + 5) + 67 \times 89. \\
6288 &= 12 \times (3 + 456 + 7 \times 8 + 9). \\
6289 &= 1 \times 23 \times 45 \times 6 + 7 + 8 \times 9. \\
6290 &= 1 + 23 \times 45 \times 6 + 7 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6221 &= 9 \times 87 + 6 + 5432 \times 1. \\
6222 &= 9 \times 87 + 6 + 5432 + 1. \\
6223 &= (9 + 8) \times (7 + 6 \times (5 + 4)) \times 3 \times 2 + 1. \\
6224 &= 9 + 8 \times (765 + 4) + 3 \times 21. \\
6225 &= 9 + 8 \times 765 + 4 \times (3 + 21). \\
6226 &= (9 + 8 \times 76 \times 5 + 4^3) \times 2 \times 1. \\
6227 &= (9 + 8 \times 76 \times 5 + 4^3) \times 2 + 1. \\
6228 &= 9 + 8 \times (765 + 4 \times 3) + 2 + 1. \\
6229 &= 9 \times 8 + 76 \times (5 + 4) \times 3^2 + 1. \\
6230 &= (9 + 87) \times 65 - 4 \times 3 + 2 \times 1. \\
6231 &= 9 \times 87 + 6 \times (5 + 43 \times 21). \\
6232 &= (9 + 876 + 5) \times (4 + 3) + 2 \times 1. \\
6233 &= 9 + 8 \times (765 + 4 + 3^2 \times 1). \\
6234 &= (98 \times 7 + 6) \times (5 + 4) + 3 + 2 + 1. \\
6235 &= (987 + 65 \times 4) \times (3 + 2 \times 1). \\
6236 &= (987 + 65 \times 4) \times (3 + 2) + 1. \\
6237 &= 9 \times (8 + 7 + 654 + 3 + 21). \\
6238 &= 9 + 876 \times 5 + 43^2 \times 1. \\
6239 &= 9 + 876 \times 5 + 43^2 + 1. \\
6240 &= (9 + 87) \times (6 + 54 + 3 + 2 \times 1). \\
6241 &= 9 + 8 \times (765 + 4 + 3^2 + 1). \\
6242 &= 9 \times (8 + 7) \times 6 + 5432 \times 1. \\
6243 &= 9 + 8 \times 76 + 5^4 \times 3^2 + 1. \\
6244 &= 987 \times 6 + 5 \times 4^3 + 2^1. \\
6245 &= 987 \times 6 + 5 \times 4^3 + 2 + 1. \\
6246 &= 987 \times 6 + 54 \times 3 \times 2 \times 1. \\
6247 &= 987 \times 6 + 54 \times 3 \times 2 + 1. \\
6248 &= 9 + 8 \times (7 + 6) \times 5 \times 4 \times 3 - 2 + 1. \\
6249 &= (9 + 87) \times 65 + 4 + 3 + 2 \times 1. \\
6250 &= (9 + 87) \times 65 + 4 + 3 + 2 + 1. \\
6251 &= (9 + 87) \times 65 + 4 + 3 \times 2 + 1. \\
6252 &= 987 \times 6 + 5 + 4 + 321. \\
6253 &= (9 + 87) \times 65 + 4 + 3^2 \times 1. \\
6254 &= (9 + 87) \times 65 + 4 + 3^2 + 1. \\
6255 &= (9 + 87) \times 65 + 4 \times 3 + 2 + 1. \\
6256 &= (98 + 7) \times 6 + 5^4 \times 3^2 + 1. \\
6257 &= 9 + 8 \times 765 + 4^3 \times 2 \times 1. \\
6258 &= 9 + 8 \times 765 + 4 \times 32 + 1. \\
6259 &= (9 \times 87 + 65 \times 4) \times 3 \times 2 + 1. \\
6260 &= (98 \times 7 + 6) \times (5 + 4) + 32 \times 1. \\
6261 &= 9 + 8 \times 765 + 4 \times (32 + 1). \\
6262 &= ((9 + 8 + 765) \times 4 + 3) \times 2 \times 1. \\
6263 &= 987 \times 6 + 5 \times 4 + 321. \\
6264 &= (9 + 8 + 7) \times 65 \times 4 + 3 + 21. \\
6265 &= (9 + 87) \times 65 + 4 \times 3 \times 2 + 1. \\
6266 &= 9 + 8 \times ((7 + 6) \times 5 \times 4 \times 3 + 2) + 1. \\
6267 &= (9 + 8 + 7) \times 65 \times 4 + 3^{(2+1)}. \\
6268 &= (9 + 87) \times 65 + 4 + 3 + 21. \\
6269 &= 9 \times (87 + 6) + 5432 \times 1. \\
6270 &= 9 \times (87 + 6) + 5432 + 1. \\
6271 &= (9 + 8 \times 7) \times 6 \times 5 + 4321. \\
6272 &= (9 + 8 + 7) \times 65 \times 4 + 32 \times 1. \\
6273 &= (9 + 87) \times 65 + 4 \times 3 + 21. \\
6274 &= (9 + 876) \times 5 + 43^2 \times 1. \\
6275 &= (9 + 876) \times 5 + 43^2 + 1. \\
6276 &= 98 \times 7 + 65 \times 43 \times 2 \times 1. \\
6277 &= 98 \times 7 + 65 \times 43 \times 2 + 1. \\
6278 &= (9 \times (8 + 7) + 6 + 5) \times 43 \times (2 - 1). \\
6279 &= 987 \times 6 + (5 + 4 \times 3) \times 21. \\
6280 &= (9 + 87) \times 65 + 4 \times (3^2 + 1). \\
6281 &= 98 \times 7 \times 6 + 5 \times (432 + 1). \\
6282 &= (987 + 6 + 54) \times 3 \times 2 \times 1. \\
6283 &= (987 + 6 + 54) \times 3 \times 2 + 1. \\
6284 &= 9 + (87 + 6 + 5) \times 4^3 + 2 + 1. \\
6285 &= (9 + 87) \times 65 + 43 + 2 \times 1. \\
6286 &= (9 + 87) \times 65 + 43 + 2 + 1. \\
6287 &= 9 + (8 + (7 + 6) \times 5) \times 43 \times 2 \times 1. \\
6288 &= 9 + (8 + 76 + 5 \times 43) \times 21. \\
6289 &= (9 + 87) \times 65 + (4 + 3)^2 \times 1. \\
6290 &= 98 + (7 + 65) \times 43 \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6291 &= 123 + 4^5 \times 6 + 7 + 8 + 9. \\
6292 &= 1 + 2 \times (3 \times 4^5 + 6) + (7 + 8) \times 9. \\
6293 &= 12 + (3 + 4^5) \times 6 + 7 \times (8 + 9). \\
6294 &= 12 + 3 + 4^5 \times 6 + (7 + 8) \times 9. \\
6295 &= 1234 \times 5 + 6 + 7 \times (8 + 9). \\
6296 &= 1 + 2 \times (3 + 4 + 56 \times 7 \times 8) + 9. \\
6297 &= 1 \times 23 \times 45 \times 6 + 78 + 9. \\
6298 &= 1 + 23 \times 45 \times 6 + 78 + 9. \\
6299 &= 12 \times 3 + 4^5 \times 6 + 7 \times (8 + 9). \\
6300 &= 1 \times 2 \times 3 \times 4^5 + 67 + 89. \\
6301 &= 1234 \times 5 + 6 \times 7 + 89. \\
6302 &= (12 \times 3 + 4) \times 5 + 678 \times 9. \\
6303 &= 1 \times 2 \times 34 \times 5 + 67 \times 89. \\
6304 &= 1 + 2 \times 34 \times 5 + 67 \times 89. \\
6305 &= 1 \times 23 + (4 \times 5 + 678) \times 9. \\
6306 &= 1 \times 23 \times 45 \times 6 + 7 + 89. \\
6307 &= 1 + 23 \times 45 \times 6 + 7 + 89. \\
6308 &= 1^2 \times 345 + 67 \times 89. \\
6309 &= 1234 \times 5 + 67 + 8 \times 9. \\
6310 &= 1 \times 2 + 345 + 67 \times 89. \\
6311 &= 1 + 2 + 345 + 67 \times 89. \\
6312 &= 12^3 + 4567 + 8 + 9. \\
6313 &= 1 + (2 + 3)^4 + 5678 + 9. \\
6314 &= 1234 \times 5 + 6 \times (7 + 8 + 9). \\
6315 &= 12 \times 3 + 4^5 \times 6 + (7 + 8) \times 9. \\
6316 &= 1 + (2 \times 3 + 4^5) \times 6 + (7 + 8) \times 9. \\
6317 &= (12 + 3) \times (4 + 56) \times 7 + 8 + 9. \\
6318 &= 12 \times 3 + (4 \times 5 + 678) \times 9. \\
6319 &= 1^2 \times (34 + 5 \times 6 + 7) \times 89. \\
6320 &= (1 + 2) \times (345 \times 6 + 7) + 89. \\
6321 &= (12 + 3 + 4^5) \times 6 + 78 + 9. \\
6322 &= 1 + (23 \times (4 + 5 \times 6) + 7) \times 8 + 9. \\
6323 &= 1 \times 2^3 \times 45 + 67 \times 89. \\
6324 &= 1 + 2^3 \times 45 + 67 \times 89. \\
6325 &= 1 + (23 + 45) \times (6 + 78 + 9). \\
6326 &= 1234 \times 5 + 67 + 89. \\
6327 &= 1 \times (2 + 3) \times 45 + 678 \times 9. \\
6328 &= 1 + (2 + 3) \times 45 + 678 \times 9. \\
6329 &= 1 \times 23 \times 45 \times 6 + 7 \times (8 + 9). \\
6330 &= 123 \times 45 + 6 + 789. \\
6331 &= (1^2 + 3^4) \times (5 + 6) \times 7 + 8 + 9. \\
6332 &= 123 + 4^5 \times 6 + 7 \times 8 + 9. \\
6333 &= 1 \times 2 \times 3 \times 4^5 + (6 + 7 + 8) \times 9. \\
6334 &= 1 + 2 \times 3 \times 4^5 + (6 + 7 + 8) \times 9. \\
6335 &= (1 + 2) \times 34 \times 56 + 7 \times 89. \\
6336 &= 12 \times 3 \times (4 \times 5 + 67 + 89). \\
6337 &= 1 + 2 \times (3 + 4 + 5 \times 6 + 7) \times 8 \times 9. \\
6338 &= 123 \times (45 + 6) + 7 \times 8 + 9. \\
6339 &= 1 + 2 + (3 \times 4 \times 5 + 6) \times (7 + 89). \\
6340 &= (1 + 2 + 3 + 4) \times (5 + 6 + 7 \times 89). \\
6341 &= 1 \times 234 + 5 + 678 \times 9. \\
6342 &= 1 + 234 + 5 + 678 \times 9. \\
6343 &= 1 + 2 \times (3 \times 4^5 + 6 \times (7 + 8) + 9). \\
6344 &= (1^2 + 3) \times 4 \times 56 \times 7 + 8 \times 9. \\
6345 &= 123 \times 45 + 6 \times (7 + 8) \times 9. \\
6346 &= 123 + 4^5 \times 6 + 7 + 8 \times 9. \\
6347 &= (12 \times 3 \times 4 + 5) \times 6 \times 7 + 89. \\
6348 &= 12 \times 3^4 + 56 \times (7 + 89). \\
6349 &= 1 \times 2 \times (34 + 56 \times 7 \times 8) + 9. \\
6350 &= 1 + 2 \times (34 + 56 \times 7 \times 8) + 9. \\
6351 &= (1 + 23 \times 45) \times 6 + (7 + 8) \times 9. \\
6352 &= 123 \times (45 + 6) + 7 + 8 \times 9. \\
6353 &= (1 + 23 + 4^5) \times 6 + 7 \times 8 + 9. \\
6354 &= 12 \times 3 \times 45 + 6 \times 789. \\
6355 &= 1 + 2 \times 3 \times (45 \times 6 + 789). \\
6356 &= (1 + 23 + 4) \times (5 \times 6 \times 7 + 8 + 9). \\
6357 &= 12 + (3 + 4 \times (5 + 6)) \times (7 + 8) \times 9. \\
6358 &= 1 \times 2 \times (34 + 56 \times 7 \times 8 + 9). \\
6359 &= 1234 \times 5 + (6 + 7 + 8) \times 9. \\
6360 &= 123 \times (45 + 6) + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6291 &= 98 + (7 + 65) \times 43 \times 2 + 1. \\
6292 &= (9 \times (8 + 7 + 6 \times (54 + 3) \times 2) + 1). \\
6293 &= (9 + 8 + 76 + 5) \times 4^3 + 21. \\
6294 &= 9 + 87 \times (65 + 4 + 3) + 21. \\
6295 &= (9 + 8 \times (76 + 54)) \times 3 \times 2 + 1. \\
6296 &= 9 + 8 + (7 + 6) \times (5 \times 4 + 3) \times 21. \\
6297 &= 987 \times 6 + 54 + 321. \\
6298 &= (98 \times (7 + 6) + 5^4 \times 3) \times 2 \times 1. \\
6299 &= (9 \times (8 + 7) + 6 + 5) \times 43 + 21. \\
6300 &= (9 \times 8 + 7 + 6 + 5 \times 43) \times 21. \\
6301 &= 9 \times (87 + 65 \times 4 + 3) \times 2 + 1. \\
6302 &= 9 + (87 + 6 + 5) \times 4^3 + 21. \\
6303 &= (9 + 8 + 7) \times 65 \times 4 + 3 \times 21. \\
6304 &= (9 + 87) \times 65 + 43 + 21. \\
6305 &= 9 + 8 \times 7 + 65 \times 4 \times (3 + 21). \\
6306 &= (9 + 87) \times 65 + 4^3 + 2 \times 1. \\
6307 &= (9 + 87) \times 65 + 4 + 3 \times 21. \\
6308 &= 9 \times 87 + 65 \times (4^3 + 21). \\
6309 &= (987 + 6) \times 5 + 4^3 \times 21. \\
6310 &= 9 + (8 + 7) \times 6 \times 5 \times (4 + 3) \times 2 + 1. \\
6311 &= 98 \times 7 + (6 + 5 + 4^3)^2 \times 1. \\
6312 &= 98 \times 7 + (6 + 5 + 4^3)^2 + 1. \\
6313 &= 9 \times 8 + (7 + 65 + 4 + 3)^2 \times 1. \\
6314 &= (9 + 8 + 7) \times (65 \times 4 + 3) + 2 \times 1. \\
6315 &= (98 + 7 + 6) \times 54 + 321. \\
6316 &= 987 + (6 \times 5 + 43)^2 \times 1. \\
6317 &= 9 + 876 + 5432 \times 1. \\
6318 &= 9 + 876 + 5432 + 1. \\
6319 &= 9 \times 8 + 7 + 65 \times 4 \times (3 + 21). \\
6320 &= (9 \times 8 + 7) \times (65 + 4 \times 3 + 2 + 1). \\
6321 &= 9 + 8 \times (765 + 4 \times 3 \times 2 \times 1). \\
6322 &= (98 + 765 \times 4 + 3) \times 2 \times 1. \\
6323 &= (98 + 765 \times 4 + 3) \times 2 + 1. \\
6324 &= (98 + 7) \times (6 + 54) + 3 + 21. \\
6325 &= (9 + 87) \times 65 + 4^3 + 21. \\
6326 &= (9 + 87) \times 65 + 43 \times 2 \times 1. \\
6327 &= (9 + 87) \times 65 + 43 \times 2 + 1. \\
6328 &= (9 \times 8 + 76 \times 5) \times (4 \times 3 + 2) \times 1. \\
6329 &= 9 + 8 \times (765 + 4 \times 3 \times 2 + 1). \\
6330 &= 98 + 76 \times ((5 + 4) \times 3^2 + 1). \\
6331 &= 9 \times 8 + 7 \times 6 \times (5 + (4 \times 3)^2) + 1. \\
6332 &= (98 + 7) \times (6 + 54) + 32 \times 1. \\
6333 &= 9 + 87 \times (65 + 4) + 321. \\
6334 &= 9 + 8 + 7 + (6 + 5^4) \times (3^2 + 1). \\
6335 &= 9 + (87 \times 6 + 5) \times 4 \times 3 + 2 \times 1. \\
6336 &= (987 + 65 + 4) \times 3 \times 2 \times 1. \\
6337 &= (987 + 65 + 4) \times 3 \times 2 + 1. \\
6338 &= 9 \times 8 \times (76 + 5 + 4 + 3) + 2 \times 1. \\
6339 &= 9 \times 8 \times (76 + 5 + 4 + 3) + 2 + 1. \\
6340 &= (9 + 8) \times 7 \times 6 + 5^4 \times 3^2 + 1. \\
6341 &= 98 \times 7 + 65 \times (43 \times 2 + 1). \\
6342 &= 9 \times (8 + 7 + 654) + 321. \\
6343 &= 9 + 8 + 76 + 5^4 \times (3^2 + 1). \\
6344 &= (-9 + 8) \times 76 + 5 \times 4 \times 321. \\
6345 &= (9 \times 8 + 7 \times 65) \times 4 \times 3 + 21. \\
6346 &= 9 + 8 \times (76 + 5 \times 4^3) \times 2 + 1. \\
6347 &= 987 \times 6 + 5 \times (4^3 + 21). \\
6348 &= (98 + 7 + 6) \times (54 + 3) + 21. \\
6349 &= 9 + (8 + 7) \times 6 + 5^4 \times (3^2 + 1). \\
6350 &= ((98 + 7) \times 6 + 5) \times (4 + 3 + 2 + 1). \\
6351 &= (9 + 8 \times (7 + 6) \times 5) \times 4 \times 3 + 2 + 1. \\
6352 &= 987 \times 6 + 5 \times 43 \times 2 \times 1. \\
6353 &= 987 \times 6 + 5 \times 43 \times 2 + 1. \\
6354 &= 9 + (87 \times 6 + 5) \times 4 \times 3 + 21. \\
6355 &= 9 \times (8 \times 7 \times 6 + 5 + 4 \times 3) \times 2 + 1. \\
6356 &= 98 + 7 \times 6 \times (5 + (4 \times 3)^2) \times 1. \\
6357 &= 987 \times 6 + 5 \times (43 \times 2 + 1). \\
6358 &= ((9 \times 87 + 6 + 5) \times 4 + 3) \times 2 \times 1. \\
6359 &= 987 \times 6 + 5 + 432 \times 1. \\
6360 &= 987 \times 6 + 5 + 432 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6361 &= (1^2 + 3) \times 4 \times 56 \times 7 + 89. \\
6362 &= 123 \times (4 + 5 + 6 \times 7) + 89. \\
6363 &= 123 + 4^5 \times 6 + 7 + 89. \\
6364 &= 1 + (234 + 5 + 6 \times 78) \times 9. \\
6365 &= 1 \times 2 \times 3 \times 4^5 + (6 + 7) \times (8 + 9). \\
6366 &= (12 \times 3^4 + 5) \times 6 + 7 \times 8 \times 9. \\
6367 &= 12^3 + 4567 + 8 \times 9. \\
6368 &= 1^2 \times 3^4 \times 5 + 67 \times 89. \\
6369 &= 1^2 + 3^4 \times 5 + 67 \times 89. \\
6370 &= 1 \times 2 + 3^4 \times 5 + 67 \times 89. \\
6371 &= 1 + 2 + 3^4 \times 5 + 67 \times 89. \\
6372 &= 1 \times 2 \times 3 \times 45 + 678 \times 9. \\
6373 &= 1 + 2 \times 3 \times 45 + 678 \times 9. \\
6374 &= -1^2 \times 34 + (5 + 67) \times 89. \\
6375 &= (1 + 23 + 4^5) \times 6 + 78 \times 9. \\
6376 &= 12 \times 34 + 5 + 67 \times 89. \\
6377 &= 1 \times 2 + 3 + (4 + 5) \times (6 + 78 \times 9). \\
6378 &= 123 + 45 \times (67 + 8 \times 9). \\
6379 &= 1 + (23 + 4^5) \times 6 + 7 + 89. \\
6380 &= 12 + 3^4 \times 5 + 67 \times 89. \\
6381 &= 1 \times 234 + (5 + 678) \times 9. \\
6382 &= 1 + 234 + (5 + 678) \times 9. \\
6383 &= 12 \times (3 + 4) \times 5 + 67 \times 89. \\
6384 &= 12^3 + 4567 + 89. \\
6385 &= ((1 + 2)^3 + 4^5) \times 6 + 7 + 8 \times 9. \\
6386 &= 123 + 4^5 \times 6 + 7 \times (8 + 9). \\
6387 &= 123 + (45 + 6 \times 7) \times 8 \times 9. \\
6388 &= 1 \times 2 \times (34 \times 5 + 6 \times 7 \times 8 \times 9). \\
6389 &= 1 + 23 \times (45 \times 6 + 7) + 8 + 9. \\
6390 &= (1 \times 23 + 4 + 5 + 678) \times 9. \\
6391 &= 1234 \times 5 + (6 + 7) \times (8 + 9). \\
6392 &= 123 \times (45 + 6) + 7 \times (8 + 9). \\
6393 &= 1 \times 2 \times (3 + 4 + 56 \times 7) \times 8 + 9. \\
6394 &= 1 + 2 \times (3 + 4 + 56 \times 7) \times 8 + 9. \\
6395 &= 1 \times 23 + (4 + 5) \times (6 + 78 \times 9). \\
6396 &= 12 \times (3 + 4 \times 5 + 6 + 7 \times 8 \times 9). \\
6397 &= 1 + (2 + 34 + 5) \times (67 + 89). \\
6398 &= 1 \times 2 \times (3 + 4 \times (5 + 6 \times 7) \times (8 + 9)). \\
6399 &= (1 + 23 + 4 + 5 + 678) \times 9. \\
6400 &= (1^2 + 3 + 4) \times (5 + 6 + 789). \\
6401 &= (1 \times 23 + 4^5) \times 6 + 7 \times (8 + 9). \\
6402 &= (12 + 3) \times 4 \times 5 + 678 \times 9. \\
6403 &= (1^2 + 3^4) \times (5 + 6) \times 7 + 89. \\
6404 &= (1 + 2)(3 + 4) + 5 + 6 \times 78 \times 9. \\
6405 &= 123 + (4 \times 5 + 678) \times 9. \\
6406 &= 1 \times 2 \times (3 \times 4^5 + 6 \times 7 + 89). \\
6407 &= 1 \times 2 \times (3 + 456 \times 7) + 8 + 9. \\
6408 &= (1 \times 2 + 3 + 4 + 56 + 7) \times 89. \\
6409 &= 1234 + (567 + 8) \times 9. \\
6410 &= 1 \times 2 + 3 \times 4 \times (5 \times 6 + 7 \times 8 \times 9). \\
6411 &= 1^2 \times 3 + 4 \times (5 + 6 + 7) \times 89. \\
6412 &= 12^3 + 4 + 5 \times (6 + 7) \times 8 \times 9. \\
6413 &= 1 \times 2 + 3 + 4 \times (5 + 6 + 7) \times 89. \\
6414 &= (1 + 2) \times 34 \times 56 + 78 \times 9. \\
6415 &= 1 \times 2 \times (3 + 456 \times 7 + 8) + 9. \\
6416 &= 1 \times 2^3 + 4 \times (5 + 6 + 7) \times 89. \\
6417 &= 12^3 + (4 + 56) \times 78 + 9. \\
6418 &= 1234 + (5 + 67) \times 8 \times 9. \\
6419 &= 1 + 2 \times 3 + 4 + (5 + 67) \times 89. \\
6420 &= 12 + 3 \times 4 \times (5 \times 6 + 7 \times 8 \times 9). \\
6421 &= 1 + 2^3 + 4 + (5 + 67) \times 89. \\
6422 &= 1 \times 2 + 3 \times 4 + (5 + 67) \times 89. \\
6423 &= 1 \times 23 \times 4 \times 5 + 67 \times 89. \\
6424 &= 1 + 23 \times 4 \times 5 + 67 \times 89. \\
6425 &= (1 + 234 + 567) \times 8 + 9. \\
6426 &= 12 \times 3 \times (4 + 5) + 678 \times 9. \\
6427 &= 12 + 3 + 4 + (5 + 67) \times 89. \\
6428 &= (1 + 23 \times 4) \times 5 + 67 \times 89. \\
6429 &= 1 + (2 + 3) \times 4 + (5 + 67) \times 89. \\
6430 &= 1^2 + 3 + (4 + 5) \times 6 \times 7 \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6361 &= 98 + 7 + 6 + 5^4 \times (3^2 + 1). \\
6362 &= 98 \times 7 + 6 \times (5^4 + 321). \\
6363 &= 9 + 87 \times (6 \times 5 + 43) + 2 + 1. \\
6364 &= 9 \times 8 + 7 \times 6 + 5^4 \times (3^2 + 1). \\
6365 &= 98 \times 7 + (6 + 5^4) \times 3^2 \times 1. \\
6366 &= 98 \times 7 + (6 + 5^4) \times 3^2 + 1. \\
6367 &= 9 - 8 \times 7 - 6 + 5 \times 4 \times 321. \\
6368 &= (9 + 87) \times 65 + 4 \times 32 \times 1. \\
6369 &= 9 \times 8 \times (7 + 6) + 5432 + 1. \\
6370 &= 98 \times (7 + 6 + 5 \times 4 + 32 \times 1). \\
6371 &= (9 + 8 \times 7 + 65) \times (4 + 3)^2 + 1. \\
6372 &= 98 \times (7 \times 6 + 5 \times 4 + 3) + 2 \times 1. \\
6373 &= 9 \times 87 + 65 \times 43 \times 2 \times 1. \\
6374 &= 9 \times 87 + 65 \times 43 \times 2 + 1. \\
6375 &= 9 \times (8 + 7) + 65 \times 4 \times (3 + 21). \\
6376 &= 98 \times (7 + 6) \times 5 + 4 + 3 - 2 + 1. \\
6377 &= 9 + 8 \times (76 + 5 \times (4 \times 3)^2 \times 1). \\
6378 &= ((9 + 8 + 7 \times 6) \times 54 + 3) \times 2 \times 1. \\
6379 &= 98 \times (7 + 6) \times 5 + 4 + 3 + 2 \times 1. \\
6380 &= 9 \times 8 \times 76 + 5 + 43 \times 21. \\
6381 &= 9 + 8 \times 765 + 4 \times 3 \times 21. \\
6382 &= 9 \times (8 + 76) + 5^4 \times 3^2 + 1. \\
6383 &= 98 \times (7 + 6) \times 5 + 4 + 3^2 \times 1. \\
6384 &= 98 \times (7 + 6) \times 5 + 4 + 3^2 + 1. \\
6385 &= 98 \times (7 + 6) \times 5 + 4 \times 3 + 2 + 1. \\
6386 &= ((98 + 7) \times 6 \times 5 + 43) \times 2 \times 1. \\
6387 &= (9 + 87) \times 65 + (4 + 3) \times 21. \\
6388 &= 9 + 8 + 7 \times 65 \times (4 + 3) \times 2 + 1. \\
6389 &= (98 + (7 + 65) \times 43) \times 2 + 1. \\
6390 &= 9 \times 8 \times 7 + 654 \times 3^2 \times 1. \\
6391 &= 9 \times 8 \times 7 + 654 \times 3^2 + 1. \\
6392 &= (9 + 8) \times (7 + (6 \times 5 \times 4 + 3) \times (2 + 1)). \\
6393 &= 9 + 8 \times 7 \times 6 \times (5 + 4 + 3^2 + 1). \\
6394 &= 98 \times (7 + 6) \times 5 + 4 \times 3 \times 2 \times 1. \\
6395 &= 9 \times (8 \times 7 + 654) + 3 + 2 \times 1. \\
6396 &= 9 \times (8 + 7 \times 6 + 5^4) + 321. \\
6397 &= 98 \times (7 \times 6 + 5 \times 4) + 321. \\
6398 &= 98 \times (7 + 6) \times 5 + 4 + 3 + 21. \\
6399 &= 9 \times (8 \times 7 \times 6 + 54 + 321). \\
6400 &= 9 + (8 + (7 + 6) \times 54) \times 3^2 + 1. \\
6401 &= 98 \times (7 + 6) \times 5 + 4 + 3^{(2+1)}. \\
6402 &= 987 \times 6 + 5 \times 4 \times (3 + 21). \\
6403 &= 98 \times (7 + 6) \times 5 + 4 \times 3 + 21. \\
6404 &= (9 + 8 + 7 \times 65 \times (4 + 3)) \times 2 \times 1. \\
6405 &= 987 \times 6 + (5 \times 4 + 3) \times 21. \\
6406 &= 98 \times (7 + 6) \times 5 + 4 + 32 \times 1. \\
6407 &= 98 \times (7 + 6) \times 5 + 4 + 32 + 1. \\
6408 &= 987 \times 6 + 54 \times 3^2 \times 1. \\
6409 &= 987 \times 6 + 54 \times 3^2 + 1. \\
6410 &= (9 \times 8 \times 7 + 6 \times 5) \times 4 \times 3 + 2 \times 1. \\
6411 &= (9 \times 8 \times 7 + 6 \times 5) \times 4 \times 3 + 2 + 1. \\
6412 &= (9 + 8) \times 76 + 5 \times 4^{(3+2)} \times 1. \\
6413 &= 9 \times (8 + 76 + 5^4) + 32 \times 1. \\
6414 &= 9 \times 87 + 6 + 5^4 \times 3^2 \times 1. \\
6415 &= 9 \times 87 + 6 + 5^4 \times 3^2 + 1. \\
6416 &= 98 \times (7 + 6) \times 5 + 43 + 2 + 1. \\
6417 &= 98 + (7 + 6) \times 54 \times 3^2 + 1. \\
6418 &= 9 \times 8 \times 76 + 5^4 + 321. \\
6419 &= 9 + 8 \times (7 + 65 \times 4) \times 3 + 2 \times 1. \\
6420 &= 9 \times (8 \times 76 + 5) + 43 \times 21. \\
6421 &= 98 \times 7 \times 6 + (5 + 43)^2 + 1. \\
6422 &= 9 \times (8 \times 7 + 654) + 32 \times 1. \\
6423 &= 9 \times (8 \times 7 + 654) + 32 + 1. \\
6424 &= 98 + 76 + 5^4 \times (3^2 + 1). \\
6425 &= 987 + 6 + 5432 \times 1. \\
6426 &= 987 + 6 + 5432 + 1. \\
6427 &= 9 \times 87 \times 6 + 54 \times 32 + 1. \\
6428 &= 9 + (87 + 6) \times (5 + 4^3) + 2 \times 1. \\
6429 &= (9 \times 8 \times 7 + 6 \times 5) \times 4 \times 3 + 21. \\
6430 &= 9 \times 8 \times 7 + 6^5 - 43^2 - 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6431 &= 12 \times (34 + 5) + 67 \times 89. \\
6432 &= 12 + 3 \times 4 + (5 + 67) \times 89. \\
6433 &= 1 + 2^3 \times (4 + 5 + 6 + 789). \\
6434 &= 1 \times 2^3 \times (4 + 5) \times 6 \times 7 \times (8 + 9). \\
6435 &= 1 \times 23 + 4 + (5 + 67) \times 89. \\
6436 &= 1 + 23 + 4 + (5 + 67) \times 89. \\
6437 &= (12 + 3 + 4) \times 5 \times 67 + 8 \times 9. \\
6438 &= 1 \times 2 \times (3^4 \times 5 \times 6 + 789). \\
6439 &= 1 + 2 \times (3^4 \times 5 \times 6 + 789). \\
6440 &= 1 \times 2^3 \times 4 + (5 + 67) \times 89. \\
6441 &= 1 + 2^3 \times 4 + (5 + 67) \times 89. \\
6442 &= 1 \times 2 \times 34 \times 5 + 678 \times 9. \\
6443 &= 1 + 2 \times 34 \times 5 + 678 \times 9. \\
6444 &= 12 \times 3 \times 45 + 67 \times 8 \times 9. \\
6445 &= 1 + 2 + 34 + (5 + 67) \times 89. \\
6446 &= 1 + 2^{(3 \times 4)} + 5 \times 6 \times 78 + 9. \\
6447 &= 1^2 \times 345 + 678 \times 9. \\
6448 &= 1^2 + 345 + 678 \times 9. \\
6449 &= 1 \times 2 + 345 + 678 \times 9. \\
6450 &= 1 + 2 + 345 + 678 \times 9. \\
6451 &= (1 + 2 \times 3)^4 + 5 \times 6 \times (7 + 8) \times 9. \\
6452 &= 1 \times 2 \times (3^4 + 56 \times 7 \times 8 + 9). \\
6453 &= 12 \times (3 + 456 + 78) + 9. \\
6454 &= 12 + 34 + (5 + 67) \times 89. \\
6455 &= 1 \times 2 + 3 \times (4 \times 56 + 7 + 8) \times 9. \\
6456 &= 12 \times (3 + 456 + 7 + 8 \times 9). \\
6457 &= 1 + 2 \times (3 \times 4^5 + 67 + 89). \\
6458 &= 1 + (2 + 3 \times 4 \times 5) \times (6 + 7) \times 8 + 9. \\
6459 &= 12 + 345 + 678 \times 9. \\
6460 &= 123 \times 4 + 5 + 67 \times 89. \\
6461 &= 1 + 23 \times (45 \times 6 + 7) + 89. \\
6462 &= 1 \times 2^3 \times 45 + 678 \times 9. \\
6463 &= 1 + 2^3 \times 45 + 678 \times 9. \\
6464 &= 1 + (2 + 3^4) \times (5 + 6) \times 7 + 8 \times 9. \\
6465 &= 12 + 3 \times (4 \times 56 + 7 + 8) \times 9. \\
6466 &= 1 \times 2^{(3 \times 4)} + 5 \times 6 \times (7 + 8 \times 9). \\
6467 &= 1 + 2^{(3 \times 4)} + 5 \times 6 \times (7 + 8 \times 9). \\
6468 &= 12^3 + (4 + 56) \times (7 + 8 \times 9). \\
6469 &= 1 \times 2 \times 34 \times (5 + 6 \times (7 + 8)) + 9. \\
6470 &= 1 + 2 \times 34 \times (5 + 6 \times (7 + 8)) + 9. \\
6471 &= 12^3 + 4 + 5 + 6 \times 789. \\
6472 &= 1 + (2 \times 3)^4 + (567 + 8) \times 9. \\
6473 &= (1 + 2) \times 34 \times 5 + 67 \times 89. \\
6474 &= 1 \times 2 \times 3 \times (456 + 7 \times 89). \\
6475 &= 1 + 2 \times 3 \times (456 + 7 \times 89). \\
6476 &= 1 \times 2 \times 34 + (5 + 67) \times 89. \\
6477 &= 1 + 2 \times 34 + (5 + 67) \times 89. \\
6478 &= 1^2 + 3 \times (4 \times 5 \times 6 + 7) \times (8 + 9). \\
6479 &= 1 \times 2 \times (3 + 456 \times 7) + 89. \\
6480 &= (1 + 2 + 34 + 5 + 678) \times 9. \\
6481 &= 1^{23} + 45 \times 6 \times (7 + 8 + 9). \\
6482 &= 12^3 + 4 \times 5 + 6 \times 789. \\
6483 &= 1 \times (23 + 4 + 56) \times 78 + 9. \\
6484 &= 1 + (23 + 4 + 56) \times 78 + 9. \\
6485 &= 1 \times 2 + 3 + 45 \times 6 \times (7 + 8 + 9). \\
6486 &= 1 + 2 + 3 + 45 \times 6 \times (7 + 8 + 9). \\
6487 &= 1 + 2 \times 3 + 45 \times 6 \times (7 + 8 + 9). \\
6488 &= 1 \times 2^3 + 45 \times 6 \times (7 + 8 + 9). \\
6489 &= 1 \times 2 \times 3 \times 4^5 + 6 \times 7 \times 8 + 9. \\
6490 &= 12^3 + 4^5 + 6 \times 7 \times 89. \\
6491 &= 1 \times 2 + 3^4 + (5 + 67) \times 89. \\
6492 &= 1 + 2 + 3^4 + (5 + 67) \times 89. \\
6493 &= 1 + (2 \times 3)^4 \times 5 + 6 + 7 + 8 - 9. \\
6494 &= (1 \times 2 \times 34 \times 5 + 6 \times 7) \times (8 + 9). \\
6495 &= 12 + 3 + 45 \times 6 \times (7 + 8 + 9). \\
6496 &= 1 \times 2 + 34 \times (56 + (7 + 8) \times 9). \\
6497 &= (12 + 3 + 45 + 6 + 7) \times 89. \\
6498 &= (1 + 23 + 4 \times 5 + 678) \times 9. \\
6499 &= 1 + 2 \times (3 + 456) \times 7 + 8 \times 9. \\
6500 &= 1 \times 23 \times 4 + (5 + 67) \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6431 &= (9 + 8) \times 7 \times 6 \times (5 + 4) + 3 + 2 \times 1. \\
6432 &= 9 \times 8 \times 76 + 5 \times 4^3 \times (2 + 1). \\
6433 &= 9 \times 8 \times 7 + (65 + 4 \times 3)^2 \times 1. \\
6434 &= 98 \times (7 + 6) \times 5 + 43 + 21. \\
6435 &= 987 + 6 \times (5 + 43 \times 21). \\
6436 &= 98 \times (7 + 6) \times 5 + 4^3 + 2 \times 1. \\
6437 &= 98 \times (7 + 6) \times 5 + 4 + 3 \times 21. \\
6438 &= 9 + 8 \times (7 + 65 \times 4) \times 3 + 21. \\
6439 &= 9 \times (8 + 7 + 6) + 5^4 \times (3^2 + 1). \\
6440 &= (9 + 87 + 65) \times 4 \times (3^2 + 1). \\
6441 &= 9 \times 8 \times (76 + 5 + 4) + 321. \\
6442 &= 9 \times 8 + 7 \times 65 \times (4 + 3^2 + 1). \\
6443 &= 9 \times 8 + 7 \times 65 \times (4 + 3) \times 2 + 1. \\
6444 &= (98 + 76 + 5) \times 4 \times 3^2 \times 1. \\
6445 &= (98 + 76 + 5) \times 4 \times 3^2 + 1. \\
6446 &= 98 \times 7 + 6 \times 5 \times 4^3 \times (2 + 1). \\
6447 &= 9 \times 8 \times 7 \times (6 + 5) + 43 \times 21. \\
6448 &= 9 + 87 \times (6 \times 5 + 4 + 3) \times 2 + 1. \\
6449 &= 9 + 8 \times 7 \times (6 \times 5 + 4^3 + 21). \\
6450 &= 9 + 8 + 7 + 6 + 5 \times 4 \times 321. \\
6451 &= 987 \times 6 + (5 \times 4 + 3)^2 \times 1. \\
6452 &= 987 \times 6 + (5 \times 4 + 3)^2 + 1. \\
6453 &= 9 \times (8 \times 7 + 654) + 3 \times 21. \\
6454 &= 9 + 8 \times 765 + 4 + 321. \\
6455 &= 98 \times (7 + 6) \times 5 + 4^3 + 21. \\
6456 &= 98 \times (7 + 6) \times 5 + 43 \times 2 \times 1. \\
6457 &= 98 \times (7 + 6) \times 5 + 43 \times 2 + 1. \\
6458 &= (9 + 8) \times 7 \times 6 \times (5 + 4) + 32 \times 1. \\
6459 &= 9 \times 87 + 6 \times (5^4 + 321). \\
6460 &= (9 + 8 \times 7 + 6 + 5) \times (4^3 + 21). \\
6461 &= (9 + 8 \times 7 + 6) \times (5 + 43 \times 2 \times 1). \\
6462 &= (9 + 8 + 76 + 5^4) \times 3^2 \times 1. \\
6463 &= 9 \times 87 + (6 + 5^4) \times 3^2 + 1. \\
6464 &= (9 \times 8 + 76 + 54) \times 32 \times 1. \\
6465 &= (9 \times 8 + 76 + 54) \times 32 + 1. \\
6466 &= 98 \times (7 + 6) \times 5 + 4 \times (3 + 21). \\
6467 &= 987 \times 6 + 543 + 2 \times 1. \\
6468 &= (9 + 8 + 76 + 5 \times 43) \times 21. \\
6469 &= (9 + 8) \times 76 \times 5 + 4 + 3 + 2 \times 1. \\
6470 &= (9 + 8) \times 76 \times 5 + 4 + 3 + 2 + 1. \\
6471 &= (9 + 8) \times 76 \times 5 + 4 + 3 \times 2 + 1. \\
6472 &= (9 + 8 \times 7 + 654) \times 3^2 + 1. \\
6473 &= (9 + 8) \times 76 \times 5 + 4 + 3^2 \times 1. \\
6474 &= (9 + 8) \times 76 \times 5 + 4 + 3^2 + 1. \\
6475 &= (9 + 8) \times 76 \times 5 + 4 \times 3 + 2 + 1. \\
6476 &= 9 + 8 \times (765 + 43) + 2 + 1. \\
6477 &= 9 + (87 + 6 + 5 \times 43) \times 21. \\
6478 &= (9 \times 8 \times 7 \times 6 + 5 \times 43) \times 2 \times 1. \\
6479 &= (9 \times 8 + 7) \times 65 + 4^3 \times 21. \\
6480 &= 9 \times 87 \times 6 + 54 \times (32 + 1). \\
6481 &= (98 \times 7 + 6 \times 5 + 4) \times 3^2 + 1. \\
6482 &= 9 + 8 \times (765 + 4) + 321. \\
6483 &= 9 \times 8 \times (7 \times 6 + 5 + 43) + 2 + 1. \\
6484 &= (9 + 8) \times 76 \times 5 + 4 \times 3 \times 2 \times 1. \\
6485 &= (9 + 8) \times 76 \times 5 + 4 \times 3 \times 2 + 1. \\
6486 &= 987 \times 6 + 543 + 21. \\
6487 &= (9 \times (8 + 7) + 6) \times (5 \times 4 + 3) \times 2 + 1. \\
6488 &= (9 + 8) \times 76 \times 5 + 4 + 3 + 21. \\
6489 &= 987 \times 6 + (5 + 4) \times 3 \times 21. \\
6490 &= 9 + (8 + 7 + 6 \times 5) \times (4 \times 3)^2 + 1. \\
6491 &= 9 + 8 \times 7 + 6 + 5 \times 4 \times 321. \\
6492 &= (9 + 87) \times 65 + 4 \times 3 \times 21. \\
6493 &= (9 + 8) \times 76 \times 5 + 4 \times 3 + 21. \\
6494 &= 9 + 8 \times (765 + 43) + 21. \\
6495 &= 9 \times (87 + 6 + 5^4) + 32 + 1. \\
6496 &= 98 + 7 \times (6 + 5 + 43 \times 21). \\
6497 &= 9 + 8 \times (765 + 43 + 2 + 1). \\
6498 &= 98 \times (7 + 6) \times 5 + 4^3 \times 2 \times 1. \\
6499 &= 98 \times (7 + 6) \times 5 + 4 \times 32 + 1. \\
6500 &= (9 + 8) \times 76 \times 5 + 4 \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
6501 &= (1 + 2) \times 34 \times 56 + 789. \\
6502 &= 1 + (2^3 + 4) \times (5 + 67 \times 8) + 9. \\
6503 &= (1 + 2)^3 \times 4 \times 5 + 67 \times 89. \\
6504 &= 1 + 23 + 45 \times 6 \times (7 + 8 + 9). \\
6505 &= 1 + 2 \times (3 + 45) \times 67 + 8 \times 9. \\
6506 &= 12 + 34 \times (56 + (7 + 8) \times 9). \\
6507 &= 12^3 + 45 + 6 \times 789. \\
6508 &= 1^2 + 3^4 \times 5 + 678 \times 9. \\
6509 &= 1 \times 2 + 3^4 \times 5 + 678 \times 9. \\
6510 &= 1 + 2 + 3^4 \times 5 + 678 \times 9. \\
6511 &= 1^2 + 3 + (45 + 678) \times 9. \\
6512 &= 1 \times 2 + 3 + (45 + 678) \times 9. \\
6513 &= 12 + 3 \times 4 \times (5 + 67 \times 8) + 9. \\
6514 &= 1 + 2 \times 3 + (45 + 678) \times 9. \\
6515 &= 1234 \times 5 + 6 \times 7 \times 8 + 9. \\
6516 &= 1 + 2 \times (3 + 456) \times 7 + 89. \\
6517 &= 1 + (23 \times 4 + 5) \times 67 + 8 \times 9. \\
6518 &= 1 + (2 + 3^4) \times 5 + 678 \times 9. \\
6519 &= 12 + 3^4 \times 5 + 678 \times 9. \\
6520 &= 1 \times 2^3 \times (4 \times 5 + 6 + 789). \\
6521 &= 1 \times 2 \times (3 + 45) \times 67 + 89. \\
6522 &= 12 + 3 + (45 + 678) \times 9. \\
6523 &= 1 + 2 \times (3 \times 4^5 + (6 + 7 + 8) \times 9). \\
6524 &= 1 + (2 \times 3)^4 \times 5 + 6 \times 7 - 8 + 9. \\
6525 &= (12 + 3 + 4 + 56) \times (78 + 9). \\
6526 &= (12 + 3 + 4) \times (5 \times 67 + 8) + 9. \\
6527 &= ((1 + 2)^3 + 4) \times 5 \times 6 \times 7 + 8 + 9. \\
6528 &= (1 + 2) \times 34 \times (5 + 6 \times 7 + 8 + 9). \\
6529 &= 1 + (2^3 + 4 + 56) \times (7 + 89). \\
6530 &= 1 \times 23 + (45 + 678) \times 9. \\
6531 &= 1 + 23 + (45 + 678) \times 9. \\
6532 &= 12^3 - 4 \times 5 + 67 \times 8 \times 9. \\
6533 &= (123 \times 4 + 5) \times (6 + 7) + 8 \times 9. \\
6534 &= (1 + 2)^3 + (45 + 678) \times 9. \\
6535 &= 123 + 4 + (5 + 67) \times 89. \\
6536 &= 1 \times 2^{(3+4)} + (5 + 67) \times 89. \\
6537 &= 1 + 2^{(3+4)} + (5 + 67) \times 89. \\
6538 &= (1 + 2^3)^4 + 56 - 7 - 8 \times 9. \\
6539 &= 12 \times (3 + 45) + 67 \times 89. \\
6540 &= 12 \times (3^4 + 56 + 7 + 8 \times 9). \\
6541 &= 1 \times 23 \times 4 \times (56 + 7 + 8) + 9. \\
6542 &= 1 + 23 \times 4 \times (56 + 7 + 8) + 9. \\
6543 &= 12 \times 3 + (45 + 678) \times 9. \\
6544 &= 1^2 + 3 \times (4^5 + (6 + 7) \times 89). \\
6545 &= (1 + 23) \times 45 \times 6 + 7 \times 8 + 9. \\
6546 &= 1 + 2 + 3 \times (4^5 + (6 + 7) \times 89). \\
6547 &= (1 \times 2 + (3 \times 45 \times 6 + 7) \times 8) + 9. \\
6548 &= (1 + 2 + (3 \times 45 \times 6 + 7) \times 8) + 9. \\
6549 &= 123 + (4 + 5) \times 6 \times 7 \times (8 + 9). \\
6550 &= (123 \times 4 + 5) \times (6 + 7) + 89. \\
6551 &= 1 \times (2 \times 3)^4 \times 5 + 6 + 7 \times 8 + 9. \\
6552 &= (1 \times 2 + 3 + 45 + 678) \times 9. \\
6553 &= 1 + 2^3 \times (4 + 5 + 6 \times (7 + 8) \times 9). \\
6554 &= 1 \times 2 + (3 + 45 \times 6) \times (7 + 8 + 9). \\
6555 &= 12 \times 34 + (5 + 678) \times 9. \\
6556 &= (1 + (2 \times 3)^4) \times 5 + 6 + 7 \times 8 + 9. \\
6557 &= 1 \times 2345 + 6 \times 78 \times 9. \\
6558 &= 1 + 2345 + 6 \times 78 \times 9. \\
6559 &= (1 + 23) \times 45 \times 6 + 7 + 8 \times 9. \\
6560 &= 1234 \times 5 + 6 \times (7 \times 8 + 9). \\
6561 &= 12^3 + 4 + 5 + 67 \times 8 \times 9. \\
6562 &= 1 \times 23 \times 4 \times 5 + 678 \times 9. \\
6563 &= 1 + 23 \times 4 \times 5 + 678 \times 9. \\
6564 &= 1 \times 23 \times (45 \times 6 + 7 + 8) + 9. \\
6565 &= 1 + 23 \times (45 \times 6 + 7 + 8) + 9. \\
6566 &= 1 + (2 \times 3)^4 \times 5 + 6 + 7 + 8 \times 9. \\
6567 &= (12 + 3^4) \times 5 + 678 \times 9. \\
6568 &= 1 \times 2 \times (3 + 456 \times 7 + 89). \\
6569 &= 1 + 2 \times (3 + 456 \times 7 + 89). \\
6570 &= 12 \times (34 + 5) + 678 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6501 &= 9 \times 8 \times (7 \times 6 + 5 + 43) + 21. \\
6502 &= 98 \times (7 + 6) \times 5 + 4 \times (32 + 1). \\
6503 &= (9 + 8) \times 76 \times 5 + 4^3 - 21. \\
6504 &= 9 \times (8 \times 7 + 6 + 5^4) + 321. \\
6505 &= 9 \times 8 + 7 + 6 + 5 \times 4 \times 321. \\
6506 &= (9 + 8) \times 76 \times 5 + 43 + 2 + 1. \\
6507 &= 9 \times (87 + 6 + 5^4 + 3 + 2 \times 1). \\
6508 &= ((9 + 8) \times 7 \times 6 + 5 + 4) \times 3^2 + 1. \\
6509 &= (9 + 8) \times 76 \times 5 + (4 + 3)^2 \times 1. \\
6510 &= 987 + (65 \times 4 + 3) \times 21. \\
6511 &= 9 + 876 + 5^4 \times 3^2 + 1. \\
6512 &= 987 + 65 \times (4^3 + 21). \\
6513 &= 9 + 8 + 76 + 5 \times 4 \times 321. \\
6514 &= 98 \times (7 + 6) \times 5 + (4 \times 3)^2 \times 1. \\
6515 &= 98 \times (7 + 6) \times 5 + (4 \times 3)^2 + 1. \\
6516 &= 9 \times (87 + 6 + 5^4 + 3 + 2 + 1). \\
6517 &= 98 \times (7 + 6) \times 5 + (4 + 3) \times 21. \\
6518 &= 98 \times 7 + (6 + 5 + 4 + 3)^2 + 1. \\
6519 &= 9 + (8 + 7) \times 6 + 5 \times 4 \times 321. \\
6520 &= (98 + (7 + 6) \times 5) \times 4 \times (3^2 + 1). \\
6521 &= 9 + 8 \times (765 + (4 + 3)^2 \times 1). \\
6522 &= 9 + 87 + 6 + 5 \times 4 \times 321. \\
6523 &= -98 + 7 \times (6 + 5) \times 43 \times 2 - 1. \\
6524 &= (9 + 8) \times 76 \times 5 + 43 + 21. \\
6525 &= 9 \times (8 \times 76 + 54 + 3 \times 21). \\
6526 &= (9 + 8) \times 76 \times 5 + 4^3 + 2 \times 1. \\
6527 &= (9 + 8) \times 76 \times 5 + 4 + 3 \times 21. \\
6528 &= 9 \times 8 \times (7 + 65) + 4^3 \times 21. \\
6529 &= 9 \times 8 \times (7 + 6) \times 5 + 43^2 \times 1. \\
6530 &= 9 \times 8 \times (7 + 6) \times 5 + 43^2 + 1. \\
6531 &= 98 + 7 + 6 + 5 \times 4 \times 321. \\
6532 &= (9 + 8 \times 7 + 6) \times (5 + 43 \times 2 + 1). \\
6533 &= 9 + 8 \times (7 + 6) + 5 \times 4 \times 321. \\
6534 &= 9 \times 8 + 7 \times 6 + 5 \times 4 \times 321. \\
6535 &= 9 + 87 \times (65 + 4 + 3 \times 2) + 1. \\
6536 &= 9 + 87 \times (6 + 5 + 4^3) + 2 \times 1. \\
6537 &= 9 + 87 \times (6 + 5 + 4^3) + 2 + 1. \\
6538 &= (9 + 8) \times (76 \times 5 + 4) + 3^2 + 1. \\
6539 &= 9 + 8 + 7 + 6 \times 543 \times 2 - 1. \\
6540 &= 9 + 8 + 7 + 6 \times 543 \times 2 \times 1. \\
6541 &= 9 + 8 + 7 + 6 \times 543 \times 2 + 1. \\
6542 &= 9 \times (8 \times 76 + 5) + 4^3 + 2 + 1. \\
6543 &= 9 \times 87 + 6 \times 5 \times 4^3 \times (2 + 1). \\
6544 &= (9 + 87 + 6 + 5^4) \times 3^2 + 1. \\
6545 &= (9 + 8) \times 76 \times 5 + 4^3 + 21. \\
6546 &= 9 + 8 + 7 + 6 \times (543 \times 2 + 1). \\
6547 &= 9 + (87 + 65) \times 43 + 2 \times 1. \\
6548 &= 9 + 8 + 7 \times (6 \times 5 + 43 \times 21). \\
6549 &= (98 + 7 + 6) \times (54 + 3 + 2 \times 1). \\
6550 &= (98 + 7 + 6) \times (54 + 3 + 2) + 1. \\
6551 &= 9 + 8 - 7 + 6543 - 2 \times 1. \\
6552 &= 987 \times 6 + 5^4 + 3 + 2 \times 1. \\
6553 &= 987 \times 6 + 5^4 + 3 + 2 + 1. \\
6554 &= 987 \times 6 + 5^4 + 3 \times 2 + 1. \\
6555 &= 9 + 87 \times (6 + 5 + 4^3) + 21. \\
6556 &= 987 \times 6 + 5^4 + 3^2 \times 1. \\
6557 &= 987 \times 6 + 5^4 + 3^2 + 1. \\
6558 &= 9 \times 8 \times 76 + 543 \times 2 \times 1. \\
6559 &= 9 \times 8 \times 76 + 543 \times 2 + 1. \\
6560 &= 98 + 7 \times 6 + 5 \times 4 \times 321. \\
6561 &= 9 + 8 \times 765 + 432 \times 1. \\
6562 &= 9 + 8 \times 765 + 432 + 1. \\
6563 &= 987 \times 6 + 5 \times 4^3 \times 2 + 1. \\
6564 &= (9 + 8 + 7) \times 6 + 5 \times 4 \times 321. \\
6565 &= (9 + 87) \times 65 + 4 + 321. \\
6566 &= 9 + (87 + 65) \times 43 + 21. \\
6567 &= 9 + 87 \times 65 + 43 \times 21. \\
6568 &= 9 \times 8 + 76 + 5 \times 4 \times 321. \\
6569 &= 9 + 8 + 7 + 6543 + 2 \times 1. \\
6570 &= 9 + 8 + 7 + 6543 + 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6571 &= 1 \times (23 \times 4 + 5) \times 67 + 8 \times 9. \\
6572 &= 12^3 + 4 \times 5 + 67 \times 8 \times 9. \\
6573 &= (1 + 2 + 3)^4 \times 5 + 6 + 78 + 9. \\
6574 &= 1 + (2 \times 3)^4 \times 5 + 6 + 78 + 9. \\
6575 &= 1 + 2 \times (3 \times (4^5 + 6 \times 7) + 89). \\
6576 &= (1 + 23) \times 45 \times 6 + 7 + 89. \\
6577 &= 1 + 2^3 \times (4 \times 5 \times 6 + 78 \times 9). \\
6578 &= (12 + 34) \times (56 + 78 + 9). \\
6579 &= 1 + 23 \times (4 + 5 \times 6 \times 7 + 8 \times 9). \\
6580 &= 1 + (2 \times 34 + 5) \times 6 \times (7 + 8) + 9. \\
6581 &= 1 \times 2 + (345 + 6 \times 7) \times (8 + 9). \\
6582 &= (1 + 23) \times 4 \times 5 + 678 \times 9. \\
6583 &= 1 + (2 \times 3)^4 \times 5 + 6 + 7 + 89. \\
6584 &= (1 \times 2)^3 \times (4 + 5 \times 6 + 789). \\
6585 &= 1 + 2^3 \times (4 + 5 \times 6 + 789). \\
6586 &= (1 + 2 + 34 + 5 \times 6 + 7) \times 89. \\
6587 &= (1 + (2 \times 3)^4) \times 5 + 6 + 7 + 89. \\
6588 &= 12 \times (34 + 5 + 6 + 7 \times 8 \times 9). \\
6589 &= 1 + (23 \times 4 + 5) \times 67 + 89. \\
6590 &= 1 + 2 + (3 + 4) \times (5 + (6 + 7) \times 8 \times 9). \\
6591 &= 12 + (345 + 6 \times 7) \times (8 + 9). \\
6592 &= 12^3 \times 4 - 56 \times 7 + 8 \times 9. \\
6593 &= 1 \times (2 + 3)^4 + 5 + 67 \times 89. \\
6594 &= 1 + (2 + 3)^4 + 5 + 67 \times 89. \\
6595 &= 1 + (2 \times 3)^4 \times 5 + 6 \times 7 + 8 \times 9. \\
6596 &= (1 + 2^3)^4 + 5 + 6 + 7 + 8 + 9. \\
6597 &= 12^3 + 45 + 67 \times 8 \times 9. \\
6598 &= (123 + 4) \times 5 + 67 \times 89. \\
6599 &= 123 \times 4 + 5 + 678 \times 9. \\
6600 &= 1^2 \times 3 \times 4 \times (5 + 67 \times 8 + 9). \\
6601 &= 12^3 + 4 + (5 + 67 \times 8) \times 9. \\
6602 &= 1 + 2 \times (345 + 67) \times 8 + 9. \\
6603 &= 123 + 45 \times 6 \times (7 + 8 + 9). \\
6604 &= 12^3 + 4 + 56 \times (7 + 8 + 9). \\
6605 &= 1 \times (2 \times 3)^4 \times 5 + 6 + 7 \times (8 + 9). \\
6606 &= (12 \times 3 + 4 \times 5 + 678) \times 9. \\
6607 &= 1 + ((2 + 3)^4 + 5 + (6 + 7) \times 8) \times 9. \\
6608 &= 12 + 34 \times (5 + (6 + 7 + 8) \times 9). \\
6609 &= (123 + 4 + 5) \times (6 \times 7 + 8) + 9. \\
6610 &= 1234 + 56 \times (7 + 89). \\
6611 &= (1 + 2 + 3)^4 \times 5 + 6 \times 7 + 89. \\
6612 &= (1 + 2) \times 34 \times 5 + 678 \times 9. \\
6613 &= (1 \times 2 + 345 + 6 \times 7) \times (8 + 9). \\
6614 &= 1 + (2 + 345 + 6 \times 7) \times (8 + 9). \\
6615 &= (12 + 3 + 4 + 5 \times 6) \times (7 + 8) \times 9. \\
6616 &= 1 + (23 + 4 \times 5 + 6) \times (7 + 8) \times 9. \\
6617 &= 1 \times 2 + (3 + 4) \times 5 \times (6 + 7 + 8) \times 9. \\
6618 &= 1 \times 2 \times 3 \times 4^5 + 6 \times (7 + 8 \times 9). \\
6619 &= (1 + 2 + 3)^4 \times 5 + 67 + 8 \times 9. \\
6620 &= 1234 \times 5 + (6 \times 7 + 8) \times 9. \\
6621 &= 1 \times 2 \times 3 \times 4^5 + 6 \times 78 + 9. \\
6622 &= 1 + 2 \times 3 \times 4^5 + 6 \times 78 + 9. \\
6623 &= 1 - 2 \times 3^4 - 5 + 6789. \\
6624 &= 12 \times 3 \times (45 + 67 + 8 \times 9). \\
6625 &= (123 \times 4 + 5 \times 67) \times 8 + 9. \\
6626 &= (1 + (2 \times 3)^4) \times 5 + 6 + (7 + 8) \times 9. \\
6627 &= 12 + (3 + 4) \times 5 \times (6 + 7 + 8) \times 9. \\
6628 &= (1^2 + 3) \times (4 \times 56 \times 7 + 89). \\
6629 &= (1 + (2 \times 3)^4) \times 5 + 6 \times (7 + 8 + 9). \\
6630 &= 123 + (45 + 678) \times 9. \\
6631 &= 1 + 2 \times (34 + 5) \times (6 + 7 + 8 \times 9). \\
6632 &= 1 \times 2 + (3 \times 4 + 5) \times 6 \times (7 \times 8 + 9). \\
6633 &= (1 \times 2 \times 3^4 + 567 + 8) \times 9. \\
6634 &= 1 + ((2 + 3)^4 + 56 + 7 \times 8) \times 9. \\
6635 &= (1 + 2 + 3) \times (4^5 + 67) + 89. \\
6636 &= (1 \times 2 \times 3)^4 \times 5 + 67 + 89. \\
6637 &= 1 + (2 \times 3)^4 \times 5 + 67 + 89. \\
6638 &= (12 + 3) \times 45 + 67 \times 89. \\
6639 &= 123 \times 4 + (5 + 678) \times 9. \\
6640 &= 1 \times (2 + 3^4) \times (56 + 7 + 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6571 &= 987 \times 6 + 5^4 + 3 + 21. \\
6572 &= 98 \times 7 + 654 \times 3^2 \times 1. \\
6573 &= 98 \times 7 + 654 \times 3^2 + 1. \\
6574 &= 987 \times 6 + 5^4 + 3^{(2+1)}. \\
6575 &= 9 \times 87 \times 6 + 5^4 \times 3 + 2 \times 1. \\
6576 &= 9 \times 87 \times 6 + 5^4 \times 3 + 2 + 1. \\
6577 &= 987 + 65 \times 43 \times 2 \times 1. \\
6578 &= 987 + 65 \times 43 \times 2 + 1. \\
6579 &= 987 \times 6 + 5^4 + 32 \times 1. \\
6580 &= 987 \times 6 + 5^4 + 32 + 1. \\
6581 &= 9 + 8 \times 7 + 6 \times 543 \times 2 \times 1. \\
6582 &= 9 + 8 \times 7 + 6 \times 543 \times 2 + 1. \\
6583 &= (9 + 87) \times 65 + (4 + 3)^{(2+1)}. \\
6584 &= 98 \times (7 + 6 + 54) - 3 + 21. \\
6585 &= (98 \times 7 + 6 + 5^4) \times (3 + 2) \times 1. \\
6586 &= (98 \times 7 + 6 + 5^4) \times (3 + 2) + 1. \\
6587 &= 9 + 8 \times 7 + 6 \times (543 \times 2 + 1). \\
6588 &= 9 + 8 + 7 + 6543 + 21. \\
6589 &= (9 + 8) \times 76 \times 5 + 4^3 \times 2 + 1. \\
6590 &= 98 \times (7 + 6 + 54) + 3 + 21. \\
6591 &= (9 + 8) \times (76 \times 5 + 4) + 3 \times 21. \\
6592 &= 9 \times (87 \times 6 + 5) + 43^2 \times 1. \\
6593 &= 9 \times (87 \times 6 + 5) + 43^2 + 1. \\
6594 &= 98 + 76 + 5 \times 4 \times 321. \\
6595 &= 9 \times 8 + 7 + 6 \times 543 \times 2 \times 1. \\
6596 &= 9 \times 8 + 7 + 6 \times 543 \times 2 + 1. \\
6597 &= 9 \times (8 + 76 + 5^4 + 3 + 21). \\
6598 &= 98 \times (7 + 6 + 54) + 32 \times 1. \\
6599 &= 98 \times (7 + 6 + 54) + 32 + 1. \\
6600 &= (9 \times 8 + 76 + 5) \times 43 + 21. \\
6601 &= 9 \times 8 + 7 + 6 \times (543 \times 2 + 1). \\
6602 &= 9 \times 8 + (7 + 6 \times 543) \times 2 \times 1. \\
6603 &= 9 \times 8 + 7 \times (6 \times 5 + 43 \times 21). \\
6604 &= (9 + 8) \times 76 \times 5 + (4 \times 3)^2 \times 1. \\
6605 &= 9 + 8 \times 7 + 654 \times (3^2 + 1). \\
6606 &= 9 \times (8 \times 7 + 654 + 3 + 21). \\
6607 &= (9 + 8) \times 76 \times 5 + (4 + 3) \times 21. \\
6608 &= 9 \times 8 + 76 \times (54 + 32 \times 1). \\
6609 &= 9 \times 8 + 76 \times (54 + 32) + 1. \\
6610 &= 987 \times 6 + 5^4 + 3 \times 21. \\
6611 &= 9 + 8 \times 7 + 6543 + 2 + 1. \\
6612 &= 9 + 87 + 6 \times 543 \times 2 \times 1. \\
6613 &= 9 + 87 + 6 \times 543 \times 2 + 1. \\
6614 &= (9 + 8) \times (76 \times 5 + 4 + 3 + 2) + 1. \\
6615 &= 98 \times 7 + (65 + 4 \times 3)^2 \times 1. \\
6616 &= 98 \times 7 + (65 + 4 \times 3)^2 + 1. \\
6617 &= 9 \times (8 + 7 + 6) \times 5 \times (4 + 3) + 2 \times 1. \\
6618 &= 987 + 6 + 5^4 \times 3^2 \times 1. \\
6619 &= 987 + 6 + 5^4 \times 3^2 + 1. \\
6620 &= -9 + 87 + 6543 - 2 + 1. \\
6621 &= 98 + 7 + 6 \times 543 \times 2 \times 1. \\
6622 &= 98 + 7 + 6 \times 543 \times 2 + 1. \\
6623 &= (98 + 76 + 5) \times (4 + 32 + 1). \\
6624 &= 9 \times 8 + 7 + 6543 + 2 \times 1. \\
6625 &= 9 \times 8 + 7 + 6543 + 2 + 1. \\
6626 &= 9876 - (54 + 3)^2 - 1. \\
6627 &= 98 + 7 + 6 \times (543 \times 2 + 1). \\
6628 &= 98 + (7 + 6 \times 543) \times 2 \times 1. \\
6629 &= 9 + 8 \times 7 + 6543 + 21. \\
6630 &= (9 + 87) \times (65 + 4) + 3 + 2 + 1. \\
6631 &= (9 + 87) \times (65 + 4) + 3 \times 2 + 1. \\
6632 &= 9 + 8 + 7 \times (6 + 5 + 4) \times 3 \times 21. \\
6633 &= 9 + (87 + 6 \times 5 \times 4) \times 32 \times 1. \\
6634 &= 98 + 76 \times (54 + 32 \times 1). \\
6635 &= 98 + 76 \times (54 + 32) + 1. \\
6636 &= (9 \times 8 + 7) \times (6 + 54 + 3 + 21). \\
6637 &= 9 + (8 \times 7 + 6 \times 543) \times 2 \times 1. \\
6638 &= (98 + 7 \times 65) \times 4 \times 3 + 2 \times 1. \\
6639 &= (98 + 7 \times 65) \times 4 \times 3 + 2 + 1. \\
6640 &= 9 + 8 + 7 \times (6 + 5) \times 43 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6641 &= 12 \times 3 \times (4 \times 5 + 6) \times 7 + 89. \\
6642 &= 1 \times 234 + (5 + 67) \times 89. \\
6643 &= 1 + 234 + (5 + 67) \times 89. \\
6644 &= 1234 \times 5 + 6 \times (7 + 8 \times 9). \\
6645 &= 12 \times (3 \times 4 + 5 + 67 \times 8) + 9. \\
6646 &= 1 \times 2^{(3 \times 4)} + 5 \times (6 + 7 \times 8 \times 9). \\
6647 &= 1234 \times 5 + 6 \times 78 + 9. \\
6648 &= 1^{23} \times 4^5 \times 6 + 7 \times 8 \times 9. \\
6649 &= 1^{23} + 4^5 \times 6 + 7 \times 8 \times 9. \\
6650 &= (1 + 2^3)^4 + 5 + 67 + 8 \times 9. \\
6651 &= (12 \times 3^4 + 5) \times 6 + 789. \\
6652 &= 1^2 + 3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6653 &= 1 \times 2 \times 345 + 67 \times 89. \\
6654 &= 1 + 2 \times 345 + 67 \times 89. \\
6655 &= 1 + 2 \times 3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6656 &= 1 \times 2^3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6657 &= 1 + 2^3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6658 &= 1^2 + 3 \times (45 \times 6 + 7) \times 8 + 9. \\
6659 &= 12 \times 3^4 + 5678 + 9. \\
6660 &= 12 \times (3 + 456 + 7 + 89). \\
6661 &= 1 + 2 \times (3 \times 4^5 + 6) + 7 \times 8 \times 9. \\
6662 &= 1 - 2 + 3 - 4 + 56 \times 7 \times (8 + 9). \\
6663 &= 12 + 3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6664 &= 1^{234} \times 56 \times 7 \times (8 + 9). \\
6665 &= 1 + 2 \times 34 \times (5 + 6 + 78 + 9). \\
6666 &= 1 \times 2 \times 3 \times 4^5 + 6 \times (78 + 9). \\
6667 &= 12 \times 3^4 + 5 \times 67 \times (8 + 9). \\
6668 &= 1^{23} \times 4 + 56 \times 7 \times (8 + 9). \\
6669 &= 12 + 3 \times (45 \times 6 + 7) \times 8 + 9. \\
6670 &= 1 + (2 \times 3)^4 \times 5 + (6 + 7 + 8) \times 9. \\
6671 &= 1 \times 23 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6672 &= 123 \times 4 \times 5 + 6 \times 78 \times 9. \\
6673 &= 1 + (2 \times 3)^4 + 56 \times (7 + 89). \\
6674 &= 123 \times 45 + 67 \times (8 + 9). \\
6675 &= 1 + 2 \times 3 + 4 + 56 \times 7 \times (8 + 9). \\
6676 &= 1^2 \times 3 \times 4 + 56 \times 7 \times (8 + 9). \\
6677 &= 1 + 2^3 + 4 + 56 \times 7 \times (8 + 9). \\
6678 &= 12 \times (3 + 45) + 678 \times 9. \\
6679 &= 1 + 2 + 3 \times 4 + 56 \times 7 \times (8 + 9). \\
6680 &= 1234 \times 5 + 6 + 7 \times 8 \times 9. \\
6681 &= (12 + 34 + 5) \times (6 \times 7 + 89). \\
6682 &= (1 + 2^3)^4 + 56 + 7 \times 8 + 9. \\
6683 &= 12 \times 3 \times 4 \times 5 + 67 \times 89. \\
6684 &= 12 \times 3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6685 &= 1 + (2 \times 3 + 4^5) \times 6 + 7 \times 8 \times 9. \\
6686 &= -123 + 4 \times 5 + 6789. \\
6687 &= (123 + 4 + (5 + 6) \times 7 \times 8) \times 9. \\
6688 &= 12 + 3 \times 4 + 56 \times 7 \times (8 + 9). \\
6689 &= 1 \times 2 \times 3 \times 4^5 + 67 \times 8 + 9. \\
6690 &= 1 + 2 \times 3 \times 4^5 + 67 \times 8 + 9. \\
6691 &= 1 \times 23 + 4 + 56 \times 7 \times (8 + 9). \\
6692 &= 1234 \times 5 + 6 \times (78 + 9). \\
6693 &= 1 \times 2 \times 3 \times (4^5 + 6 \times (7 + 8)) + 9. \\
6694 &= 1 + 2 \times 3 \times (4^5 + 6 \times (7 + 8)) + 9. \\
6695 &= (1 + 2)^3 + 4 + 56 \times 7 \times (8 + 9). \\
6696 &= 1 \times 23 \times 4 \times (5 + 67) + 8 \times 9. \\
6697 &= 1 + 23 \times 4 \times (5 + 67) + 8 \times 9. \\
6698 &= 1^2 \times 34 + 56 \times 7 \times (8 + 9). \\
6699 &= 1^2 + 34 + 56 \times 7 \times (8 + 9). \\
6700 &= 1 \times 2 + 34 + 56 \times 7 \times (8 + 9). \\
6701 &= 1 + 2 + 34 + 56 \times 7 \times (8 + 9). \\
6702 &= (1 + 2^3 + 4^5) \times 6 + 7 \times 8 \times 9. \\
6703 &= 1 + 2 \times 3 \times 4^5 + (6 + 7 \times 8) \times 9. \\
6704 &= (1 + 2^3)^4 + 56 + 78 + 9. \\
6705 &= (1 + 2^3)^4 + 5 + 67 + 8 \times 9. \\
6706 &= (1 \times 2^3)^4 + 5 \times 6 \times (78 + 9). \\
6707 &= 123 \times (4 + 5) \times 6 + 7 \times 8 + 9. \\
6708 &= 12 + (3 + 4 + 5) \times (6 + 7 \times 8) \times 9. \\
6709 &= 1 + (23 + 4 \times 5) \times (67 + 89). \\
6710 &= 12 + 34 + 56 \times 7 \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6641 &= 9 + 87 + 6543 + 2 \times 1. \\
6642 &= 9 + 87 + 6543 + 2 + 1. \\
6643 &= 9 \times 8 + 7 + 6543 + 21. \\
6644 &= 9 + 8 \times (765 + 4^3) + 2 + 1. \\
6645 &= 98 + 7 + 654 \times (3^2 + 1). \\
6646 &= (9 + 8 \times 7 + 6 \times 543) \times 2 \times 1. \\
6647 &= (9 + 8 \times 7 + 6 \times 543) \times 2 + 1. \\
6648 &= (9 + 87) \times (65 + 4) + 3 + 21. \\
6649 &= (9 + (8 + 7) \times (6 + 5 \times 43)) \times 2 + 1. \\
6650 &= 98 + 7 + 6543 + 2 \times 1. \\
6651 &= 98 + 7 + 6543 + 2 + 1. \\
6652 &= 9 \times (8 + 7) + 6 \times 543 \times 2 + 1. \\
6653 &= 987 \times 6 + (5 + 4)^3 + 2 \times 1. \\
6654 &= 987 \times 6 + (5 + 4)^3 + 2 + 1. \\
6655 &= ((9 + 8) \times (7 + 6) \times 5 + 4) \times 3 \times 2 + 1. \\
6656 &= (9 + 87) \times (65 + 4) + 32 \times 1. \\
6657 &= (98 + 7 \times 65) \times 4 \times 3 + 21. \\
6658 &= (9 + (8 + 7) \times 6 + 5) \times 4^3 + 2 \times 1. \\
6659 &= (9 + 8) \times 7 + 654 \times (3^2 + 1). \\
6660 &= 9 + 87 + 6543 + 21. \\
6661 &= 9 \times (8 + 7 \times 6 + 5 \times 4^3) \times 2 + 1. \\
6662 &= 9 + 8 \times (765 + 4^3) + 21. \\
6663 &= (98 + 7 + 6) \times 5 \times 4 \times 3 + 2 + 1. \\
6664 &= (9 + 8) \times 7 + 6543 + 2 \times 1. \\
6665 &= (9 + 8) \times 7 + 6543 + 2 + 1. \\
6666 &= 987 + (6 + 5^4) \times 3^2 \times 1. \\
6667 &= 987 + (6 + 5^4) \times 3^2 + 1. \\
6668 &= (9 + 8 \times (7 + 6)) \times (54 + 3 + 2) + 1. \\
6669 &= 98 + 7 + 6543 + 21. \\
6670 &= 9 \times 87 + 654 \times 3^2 + 1. \\
6671 &= (9 + 87) \times 65 + 432 - 1. \\
6672 &= (9 + 87) \times 65 + 432 \times 1. \\
6673 &= (9 + 87) \times 65 + 432 + 1. \\
6674 &= 9 \times (87 + 654) + 3 + 2 \times 1. \\
6675 &= 9 \times (87 + 654) + 3 + 2 + 1. \\
6676 &= 9 \times (87 + 654) + 3 \times 2 + 1. \\
6677 &= (9 + (8 + 7) \times 6 + 5) \times 4^3 + 21. \\
6678 &= 9 \times (87 + 654) + 3^2 \times 1. \\
6679 &= 9 + (87 + 654) \times 3^2 + 1. \\
6680 &= 9 \times (8 + 7) + 6543 + 2 \times 1. \\
6681 &= 9 \times (8 + 7) + 6543 + 2 + 1. \\
6682 &= 9 \times 8 + (7 + 654) \times (3^2 + 1). \\
6683 &= (9 + 8) \times 7 + 6543 + 21. \\
6684 &= 9 \times 8 + 76 \times (54 + 32 + 1). \\
6685 &= (9 + 8) \times (76 \times 5 + 4 \times 3) + 21. \\
6686 &= -9 - 8 \times 7 + (6 + 5 + 4)^3 \times 2 + 1. \\
6687 &= 9 \times 8 + 7 \times (6 + 5 + 4) \times 3 \times 21. \\
6688 &= 9 + 87 \times 65 + 4(3 + 2 \times 1). \\
6689 &= 9 + 87 \times 65 + 4(3 + 2) + 1. \\
6690 &= (9 + (8 + 7) \times (6 + 5) \times 4) \times (3^2 + 1). \\
6691 &= (9 \times 8 + 7) \times 6 \times 5 + 4321. \\
6692 &= (98 + 76 \times 5) \times (4 + 3) \times 2 \times 1. \\
6693 &= 9 \times (87 + 654) + 3 + 21. \\
6694 &= 9 \times 8 + 7 \times (6 + 5) \times 43 \times 2 \times 1. \\
6695 &= 98 \times (7 + 6) \times 5 + 4 + 321. \\
6696 &= (9 + 8 + 76) \times (5 + 4 + 3 \times 21). \\
6697 &= ((9 \times 8 + 76) \times 5 + 4) \times 3^2 + 1. \\
6698 &= 9 \times 8 \times 76 + (5 \times (4 + 3))^2 + 1. \\
6699 &= 9 \times (8 + 7) + 6543 + 21. \\
6700 &= 9 + (87 + 6 \times 543) \times 2 + 1. \\
6701 &= 9 \times (87 + 654) + 32 \times 1. \\
6702 &= 9 \times (87 + 654) + 32 + 1. \\
6703 &= ((9 \times 8 + 765) \times 4 + 3) \times 2 + 1. \\
6704 &= 1 - (2 - 34) \times 5 \times 6 \times 7 - (8 + 9). \\
6705 &= 9 + (87 + 6) \times (5 + 4 + 3 \times 21). \\
6706 &= 98 \times (7 + 6) + 5432 \times 1. \\
6707 &= 98 \times (7 + 6) + 5432 + 1. \\
6708 &= (9 + 87 + 6 \times 543) \times 2 \times 1. \\
6709 &= (9 + 87 + 6 \times 543) \times 2 + 1. \\
6710 &= 98 + 76 \times (54 + 32 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
6711 &= 12 + (3 + 4) \times (5 + 6) \times (78 + 9). \\
6712 &= -1 - 2 + 3 \times 4 \times 567 - 89. \\
6713 &= 1 \times 23 \times 4 \times (5 + 67) + 89. \\
6714 &= 1 \times 23 \times 45 \times 6 + 7 \times 8 \times 9. \\
6715 &= 1234 \times 5 + 67 \times 8 + 9. \\
6716 &= (12 + 34) \times (5 + 6 + (7 + 8) \times 9). \\
6717 &= 1 \times (2 + 3) \times 4 \times 5 \times 67 + 8 + 9. \\
6718 &= 1 + (2 + 3) \times 4 \times 5 \times 67 + 8 + 9. \\
6719 &= (1 + 2) \times 34 \times 5 \times (6 + 7) + 89. \\
6720 &= 1 \times 2^3 \times (45 + 6 + 789). \\
6721 &= 1 + 2^3 \times (45 + 6 + 789). \\
6722 &= 1 \times 2 + 3 \times 4 \times (56 + 7 \times 8 \times 9). \\
6723 &= (1 + 23 + 45 + 678) \times 9. \\
6724 &= (12 + 3) \times 4 + 56 \times 7 \times (8 + 9). \\
6725 &= 1 \times 23 \times 4 \times (5 \times (6 + 7) + 8) + 9. \\
6726 &= 1 + 23 \times 4 \times (5 \times (6 + 7) + 8) + 9. \\
6727 &= (1 + 2^3)^4 + (5 + 6) \times 7 + 89. \\
6728 &= 1234 \times 5 + (6 + 7 \times 8) \times 9. \\
6729 &= 1^{23} \times 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6730 &= 1^{23} + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6731 &= 1 - 2 + 3 \times 4 \times 567 - 8 \times 9. \\
6732 &= 1 \times 2 \times 34 + 56 \times 7 \times (8 + 9). \\
6733 &= 1 + 2 \times 34 + 56 \times 7 \times (8 + 9). \\
6734 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6735 &= 1 + 2 + 3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6736 &= 1 + 2 \times 3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6737 &= 1 \times 2^3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6738 &= 1 + 2^3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6739 &= 1 + 2 \times (345 + 6 \times 7 \times 8 \times 9). \\
6740 &= 1 + 23 \times (4 \times (56 + 7 + 8) + 9). \\
6741 &= (12 \times 34 + 5 + 6 \times 7 \times 8) \times 9. \\
6742 &= 1 \times 2^{(3+4)} \times 5 + 678 \times 9. \\
6743 &= 1 + 2^{(3+4)} \times 5 + 678 \times 9. \\
6744 &= 12 + 3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6745 &= 1^2 \times 3^4 + 56 \times 7 \times (8 + 9). \\
6746 &= 1234 \times 5 + 6 \times (7 + 89). \\
6747 &= 1 \times 2 + 3^4 + 56 \times 7 \times (8 + 9). \\
6748 &= 12 \times (3 + 4) + 56 \times 7 \times (8 + 9). \\
6749 &= (1^{23} + 4 + 56 \times 7) \times (8 + 9). \\
6750 &= 1^2 \times (3 \times 4 \times 56 + 78) \times 9. \\
6751 &= 1 + 2 \times (34 + 5 + 6 \times 7 \times 8) \times 9. \\
6752 &= 1 \times 23 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6753 &= 1 + 23 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6754 &= 1^2 + (3 + 4 \times 5 \times 6 \times 7) \times 8 + 9. \\
6755 &= 1 \times 23 + (4 + 56 \times 7) \times (8 + 9). \\
6756 &= 1 \times 23 \times 4 + 56 \times 7 \times (8 + 9). \\
6757 &= 12 + 3^4 + 56 \times 7 \times (8 + 9). \\
6758 &= 1 \times 2 + 3 \times 4 \times (5 + (6 + 7 \times 8) \times 9). \\
6759 &= (12 \times 34 + 5 \times 67 + 8) \times 9. \\
6760 &= 1^2 + 3 \times 45 \times (6 \times 7 + 8) + 9. \\
6761 &= 123 \times (4 + 5) \times 6 + 7 \times (8 + 9). \\
6762 &= 1 \times 23 \times (45 \times 6 + 7 + 8 + 9). \\
6763 &= 1 + 23 \times (45 \times 6 + 7 + 8 + 9). \\
6764 &= 1^{23} \times (4 + 5 + 67) \times 89. \\
6765 &= 12 \times 3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
6766 &= (1 + 2) \times 34 + 56 \times 7 \times (8 + 9). \\
6767 &= 1^{23} \times 4^5 \times 6 + 7 \times 89. \\
6768 &= 1^{23} + 4^5 \times 6 + 7 \times 89. \\
6769 &= 1 \times 2 + 3 + (4 + 5 + 67) \times 89. \\
6770 &= 1^2 \times 3 + 4^5 \times 6 + 7 \times 89. \\
6771 &= 123 + 4^5 \times 6 + 7 \times 8 \times 9. \\
6772 &= 1 \times 2 + 3 + 4^5 \times 6 + 7 \times 89. \\
6773 &= 1 + 2 + 3 + 4^5 \times 6 + 7 \times 89. \\
6774 &= 12 \times 34 \times 5 + 6 \times 789. \\
6775 &= 1 \times 2^3 + 4^5 \times 6 + 7 \times 89. \\
6776 &= 1 + 2^3 + 4^5 \times 6 + 7 \times 89. \\
6777 &= (12 + 3) \times 45 + 678 \times 9. \\
6778 &= 1234 + (5 + 6) \times 7 \times 8 \times 9. \\
6779 &= 12 + 3 + (4 + 5 + 67) \times 89. \\
6780 &= 1 + 23 + 4 \times (5 \times 6 \times 7 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6711 &= 9 + 87 \times (65 + 4 \times 3) + 2 + 1. \\
6712 &= (9 + 8) \times 76 \times 5 + 4 \times 3 \times 21. \\
6713 &= 9 \times 87 + (65 + 4 \times 3)^2 + 1. \\
6714 &= (98 \times 7 + 6 + 54) \times 3^2 \times 1. \\
6715 &= (98 \times 7 + 6 + 54) \times 3^2 + 1. \\
6716 &= 9 + 87 \times 6 \times 5 + 4^{(3 \times 2)} + 1. \\
6717 &= 9 \times 8 \times (76 + 5 + 4 \times 3) + 21. \\
6718 &= -9 + 8 \times 7 \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
6719 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 - 3^2 - 1. \\
6720 &= 98 + 7 \times (6 + 5) \times 43 \times 2 \times 1. \\
6721 &= 98 + 7 \times (6 + 5) \times 43 \times 2 + 1. \\
6722 &= (98 + 7 \times 6) \times (5 + 43) + 2 \times 1. \\
6723 &= 9 \times (87 + 654 + 3 + 2 + 1). \\
6724 &= (9 + 8) \times 76 + 5432 \times 1. \\
6725 &= (9 + 8) \times 76 + 5432 + 1. \\
6726 &= (98 + 7 + 6 \times 543) \times 2 \times 1. \\
6727 &= (98 + 7 + 6 \times 543) \times 2 + 1. \\
6728 &= 9 \times 8 \times 76 + (5^4 + 3) \times 2 \times 1. \\
6729 &= 9 + 87 \times (65 + 4 \times 3) + 21. \\
6730 &= 9 + 8 \times 7 \times (6 + (54 + 3) \times 2) + 1. \\
6731 &= 9 + (8 + 7 + 6) \times 5 \times 4^3 + 2 \times 1. \\
6732 &= 9 \times 8 \times 76 + 5 \times 4 \times 3 \times 21. \\
6733 &= 9 \times ((8 \times 7 + 6) \times 5 + 4^3) \times 2 + 1. \\
6734 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3 + 2 \times 1. \\
6735 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3 \times 2 \times 1. \\
6736 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
6737 &= 9 + 8 \times (7 \times (6 + (54 + 3) \times 2) + 1). \\
6738 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3^2 \times 1. \\
6739 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3^2 + 1. \\
6740 &= (98 + 7) \times 65 - 43 \times 2 + 1. \\
6741 &= (98 + 7 \times 6) \times (5 + 43) + 21. \\
6742 &= 9 \times 8 + (7 \times 6 + 5^4) \times (3^2 + 1). \\
6743 &= ((9 \times (87 + 6) + 5) \times 4 + 3) \times 2 + 1. \\
6744 &= 9 \times 8 \times 7 + 65 \times 4 \times (3 + 21). \\
6745 &= (9 + 8 \times 7 \times (6 + 54) + 3) \times 2 + 1. \\
6746 &= (9 + 8 \times (7 + 6 \times (5 + 4^3))) \times 2 + 1. \\
6747 &= 987 + 6 \times 5 \times 4^3 \times (2 + 1). \\
6748 &= -987 + 6^5 - 43 + 2 \times 1. \\
6749 &= (9 + 8) \times (7 + 65 + 4 + 321). \\
6750 &= 9 + 8 + 7 + 6 + 5 \times 4^3 \times 21. \\
6751 &= (9 + 87 + 654) \times 3^2 + 1. \\
6752 &= 9 + (8 \times 76 + 5) \times (4 + 3 \times 2 + 1). \\
6753 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3 + 21. \\
6754 &= ((9 + 8) \times 7 + 6 \times 543) \times 2 \times 1. \\
6755 &= ((9 + 8) \times 7 + 6 \times 543) \times 2 + 1. \\
6756 &= 9 + 8 \times (7 \times 6 \times 5 \times 4 + 3) + 2 + 1. \\
6757 &= ((9 + 8) \times 7 + 6) \times 54 + 3 \times 2 + 1. \\
6758 &= (9 \times (8 \times 7 + 6) + 5) \times 4 \times 3 + 2 \times 1. \\
6759 &= 9 \times (87 + 654 + 3^2 + 1). \\
6760 &= (98 \times 7 + 65) \times (4 + 3 + 2) + 1. \\
6761 &= 9 \times 8 \times 76 + 5 + 4 \times 321. \\
6762 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 32 + 1. \\
6763 &= (9 + 8 \times 7 \times 6 \times 5) \times 4 + 3 \times 2 + 1. \\
6764 &= 98 \times (7 \times 6 + (5 + 4) \times 3) + 2 \times 1. \\
6765 &= 9 + 8 \times 7 \times 6 + 5 \times 4 \times 321. \\
6766 &= (9 + 8 \times 7 \times 6 \times 5) \times 4 + 3^2 + 1. \\
6767 &= (9 \times 8 + 7 \times (6 + 5) \times 43) \times 2 + 1. \\
6768 &= 9 \times 8 \times 76 + 54 \times (3 + 21). \\
6769 &= (9 \times 8 + 7 \times 6 \times 5) \times 4 \times 3 \times 2 + 1. \\
6770 &= (9 \times (8 + 7) + 6) \times (5 + 43) + 2 \times 1. \\
6771 &= (98 + 7 + 6) \times (54 + 3 \times 2 + 1). \\
6772 &= 9 + (8 + 7 + 6) \times (5 \times 4^3 + 2) + 1. \\
6773 &= 9 \times 8 \times 7 \times 6 + 5^4 \times 3 \times 2 - 1. \\
6774 &= 9 \times 8 \times 7 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
6775 &= 9 \times 8 \times 7 \times 6 + 5^4 \times 3 \times 2 + 1. \\
6776 &= 98 - 7 \times 6 + 5 \times 4^3 \times 21. \\
6777 &= 9 + 8 \times (76 \times 5 + 43) \times 2 \times 1. \\
6778 &= 9 + 8 \times (76 \times 5 + 43) \times 2 + 1. \\
6779 &= 9 + 8 + 7 \times 6 + 5 \times 4^3 \times 21. \\
6780 &= (9 + 8 \times 7 \times 6 \times 5) \times 4 + 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6781 &= 1 + (2^3 + 4) \times 5 \times ((6 + 7) \times 8 + 9). \\
6782 &= 12 + 3 + 4^5 \times 6 + 7 \times 89. \\
6783 &= (12 + 345 + 6 \times 7) \times (8 + 9). \\
6784 &= 1 + (2 \times 3 + 45 + 6) \times 7 \times (8 + 9). \\
6785 &= 1^2 \times (3 + 4^5) \times 6 + 7 \times 89. \\
6786 &= (1 \times 23 + 4^5) \times 6 + 7 \times 8 \times 9. \\
6787 &= 1 \times 23 + (4 + 5 + 67) \times 89. \\
6788 &= 1 \times 2 \times (3 + 4^5) + 6 \times 789. \\
6789 &= 1^{2345} \times 6789. \\
6790 &= 1^{2345} + 6789. \\
6791 &= 1 + 23 + 4^5 \times 6 + 7 \times 89. \\
6792 &= 1 \times 2 \times 345 + 678 \times 9. \\
6793 &= 1 + 2 \times 345 + 678 \times 9. \\
6794 &= 1^{234} \times 5 + 6789. \\
6795 &= 1^{234} + 5 + 6789. \\
6796 &= (1^2 + 3) \times (4^5 + (67 + 8) \times 9). \\
6797 &= 12 + (3 + 4^5) \times 6 + 7 \times 89. \\
6798 &= 1^{23} \times 4 + 5 + 6789. \\
6799 &= 1234 \times 5 + 6 + 7 \times 89. \\
6800 &= (123 + 45 \times 6 + 7) \times (8 + 9). \\
6801 &= 1^2 \times 3 + 4 + 5 + 6789. \\
6802 &= 1^2 + 3 + 4 + 5 + 6789. \\
6803 &= 1 \times 2 + 3 + 4 + 5 + 6789. \\
6804 &= 1 + 2 + 3 + 4 + 5 + 6789. \\
6805 &= 1 + 2 \times 3 + 4 + 5 + 6789. \\
6806 &= 1 \times 2^3 + 4 + 5 + 6789. \\
6807 &= 1 + 2^3 + 4 + 5 + 6789. \\
6808 &= 1 \times 2 + 3 \times 4 + 5 + 6789. \\
6809 &= 1 + 2 + 3 \times 4 + 5 + 6789. \\
6810 &= 1^{23} + 4 \times 5 + 6789. \\
6811 &= 1^2 + 3 \times 4^5 + 6 \times 7 \times 89. \\
6812 &= 1^2 \times 3 + 4 \times 5 + 6789. \\
6813 &= 12 + 3 + 4 + 5 + 6789. \\
6814 &= 1 \times 2 + 3 + 4 \times 5 + 6789. \\
6815 &= 1 + 2 + 3 + 4 \times 5 + 6789. \\
6816 &= 1 + 2 \times 3 + 4 \times 5 + 6789. \\
6817 &= 1 \times 2^3 + 4 \times 5 + 6789. \\
6818 &= 12 + 3 \times 4 + 5 + 6789. \\
6819 &= 1 + 2 \times 3 \times 4 + 5 + 6789. \\
6820 &= 1 + 2 \times 3 \times 4^5 + (67 + 8) \times 9. \\
6821 &= 1 \times 23 + 4 + 5 + 6789. \\
6822 &= 1 + 23 + 4 + 5 + 6789. \\
6823 &= 1 \times 2 \times (3 \times 4 + 5) + 6789. \\
6824 &= 12 + 3 + 4 \times 5 + 6789. \\
6825 &= (1 + 2)^3 + 4 + 5 + 6789. \\
6826 &= 1 \times 2^3 \times 4 + 5 + 6789. \\
6827 &= 1 + 2^3 \times 4 + 5 + 6789. \\
6828 &= 1^2 \times 34 + 5 + 6789. \\
6829 &= 1^2 + 34 + 5 + 6789. \\
6830 &= 1 \times 2 + 34 + 5 + 6789. \\
6831 &= 1 + 2 + 34 + 5 + 6789. \\
6832 &= 1 \times 23 + 4 \times 5 + 6789. \\
6833 &= 1 + 23 + 4 \times 5 + 6789. \\
6834 &= 12 \times 3 + 4 + 5 + 6789. \\
6835 &= 1^{23} + 45 + 6789. \\
6836 &= 12 + (3 + 4) \times 5 + 6789. \\
6837 &= 1^2 \times 3 + 45 + 6789. \\
6838 &= 1^2 + 3 + 45 + 6789. \\
6839 &= 1 \times 2 + 3 + 45 + 6789. \\
6840 &= 12 + 34 + 5 + 6789. \\
6841 &= 1 + 2 \times 3 + 45 + 6789. \\
6842 &= 1 \times 2^3 + 45 + 6789. \\
6843 &= 1 + 2^3 + 45 + 6789. \\
6844 &= 1 + 2 \times 3 \times (4 + 5) + 6789. \\
6845 &= 12 \times 3 + 4 \times 5 + 6789. \\
6846 &= 1^{23} \times 4^5 \times 6 + 78 \times 9. \\
6847 &= 1^{23} + 4^5 \times 6 + 78 \times 9. \\
6848 &= 1 - 2 + 3 \times 4 \times 5 + 6789. \\
6849 &= 12 + 3 + 45 + 6789. \\
6850 &= 1 + (2^3 + 4) \times 5 + 6789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6781 &= 9 + 87 \times 6 + 5^4 \times (3^2 + 1). \\
6782 &= ((9 + 8) \times 7 + 6) \times 54 + 32 \times 1. \\
6783 &= 9 \times (87 + 6 + 5^4) + 321. \\
6784 &= 9 - 8 + 7 \times 6 \times 54 \times 3 - 21. \\
6785 &= (9 + 8) \times 76 \times 5 + 4 + 321. \\
6786 &= 98 \times ((7 + 6) \times 5 + 4) + 3 + 21. \\
6787 &= (9 \times (8 + 7) + 6 \times 543) \times 2 + 1. \\
6788 &= (9 + 8 \times 7 \times 6 \times 5) \times 4 + 32 \times 1. \\
6789 &= (9 + 8 \times 7 \times 6 \times 5) \times 4 + 32 + 1. \\
6790 &= ((9 \times 87 + 65) \times 4 + 3) \times 2 \times 1. \\
6791 &= 9 + 8 \times 7 + 6 + 5 \times 4^3 \times 21. \\
6792 &= 9 + 8 \times 7 \times 6 \times 5 \times 4 + 3 \times 21. \\
6793 &= 9 + 8 + 7 \times (65 + 43 \times 21). \\
6794 &= 98 \times ((7 + 6) \times 5 + 4) + 32 \times 1. \\
6795 &= (98 \times 7 + 65 + 4) \times 3^2 \times 1. \\
6796 &= 9 + 87 \times (65 + 4 + 3^2) + 1. \\
6797 &= 98 + 7 \times (6 + 5) \times (43 \times 2 + 1). \\
6798 &= 9 + 87 \times (6 + 5 \times 4) \times 3 + 2 + 1. \\
6799 &= (9 + 8 + 7 + (6 + 5 + 4)^3) \times 2 + 1. \\
6800 &= (98 + 7 + 65) \times 4 \times (3^2 + 1). \\
6801 &= 9 \times (8 \times 76 + 5) + 4 \times 321. \\
6802 &= 98 \times (7 + 6) \times 5 + 432 \times 1. \\
6803 &= 98 \times (7 + 6) \times 5 + 432 + 1. \\
6804 &= 9 \times (8 + 7 + 65 + 4) \times 3^2 \times 1. \\
6805 &= 9 \times 8 + 7 + 6 + 5 \times 4^3 \times 21. \\
6806 &= 9 - 8 + 7 \times 6 \times 54 \times 3 + 2 - 1. \\
6807 &= 98 \times 76 - 5 \times 4 \times 32 - 1. \\
6808 &= ((9 + 8) \times 7 + 65) \times (4 + 32 + 1). \\
6809 &= 9 + 8 \times (765 + 4^3 + 21). \\
6810 &= (9 + 8 \times 7) \times 6 + 5 \times 4 \times 321. \\
6811 &= 9 \times (8 + 76) \times (5 + 4) + 3 \times 2 + 1. \\
6812 &= -987 + 6^5 + 4 \times 3 \times 2 - 1. \\
6813 &= 9 + 8 + 76 + 5 \times 4^3 \times 21. \\
6814 &= (987 + 6) \times 5 + 43^2 \times 1. \\
6815 &= (987 + 6) \times 5 + 43^2 + 1. \\
6816 &= 9 + 87 \times (6 + 5 \times 4) \times 3 + 21. \\
6817 &= 9 + 8 \times (765 + 43 \times 2 \times 1). \\
6818 &= (98 + 7 \times (6 + 5) \times 43) \times 2 \times 1. \\
6819 &= 9 + (8 + 7) \times 6 + 5 \times 4^3 \times 21. \\
6820 &= 987 \times 6 - 5 + 43 \times 21. \\
6821 &= 9 \times 8 \times 76 + 5 + 4^3 \times 21. \\
6822 &= 9 + 87 + 6 + 5 \times 4^3 \times 21. \\
6823 &= 9 + 8 + 7 \times 6 \times 54 \times 3 + 2 \times 1. \\
6824 &= 9 + 8 + 7 \times 6 \times 54 \times 3 + 2 + 1. \\
6825 &= (9 \times 8 + 7 \times 6 \times 5 + 43) \times 21. \\
6826 &= (98 + 7) \times (6 + 54 + 3 + 2) + 1. \\
6827 &= 98 \times 76 - 5^4 + 3 + 2 - 1. \\
6828 &= 9 \times 8 \times 7 \times (6 + 5) + 4 \times 321. \\
6829 &= 9 \times 8 + 7 + (6 + 5 + 4)^3 \times 2 \times 1. \\
6830 &= 987 \times 6 + 5 + 43 \times 21. \\
6831 &= 98 + 7 + 6 + 5 \times 4^3 \times 21. \\
6832 &= (98 + 7 + 654) \times 3^2 + 1. \\
6833 &= 9 + 8 \times (7 + 6) + 5 \times 4^3 \times 21. \\
6834 &= 9 \times 8 + 7 \times 6 + 5 \times 4^3 \times 21. \\
6835 &= (98 + 7) \times 65 + 4 + 3 + 2 + 1. \\
6836 &= (98 + 7) \times 65 + 4 + 3 \times 2 + 1. \\
6837 &= 9 \times (8 + 76) \times (5 + 4) + 32 + 1. \\
6838 &= (98 + 7) \times 65 + 4 + 3^2 \times 1. \\
6839 &= (98 + 7) \times 65 + 4 + 3^2 + 1. \\
6840 &= (98 + 7) \times 65 + 4 \times 3 + 2 + 1. \\
6841 &= 9 \times 8 + (7 \times 6 + 5) \times (4 \times 3)^2 + 1. \\
6842 &= 9 + 8 + 7 \times 65 \times (4 \times 3 + 2 + 1). \\
6843 &= (9 \times 8 + 7 \times 6) \times 5 \times 4 \times 3 + 2 + 1. \\
6844 &= 98 - 7 + 6^5 - 4(3 + 2) + 1. \\
6845 &= (9 + 8) \times 7 + 6 + 5 \times 4^3 \times 21. \\
6846 &= (98 + 7 + 6 + 5 \times 43) \times 21. \\
6847 &= 9 + 87 + (6 + 5 + 4)^3 \times 2 + 1. \\
6848 &= 9 \times 8 + 7 \times (65 + 43 \times 21). \\
6849 &= (98 + 7) \times 65 + 4 \times 3 \times 2 \times 1. \\
6850 &= (98 + 7) \times 65 + 4 \times 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6851 &= 1 \times 2 + 3 \times 4 \times 5 + 6789. \\
6852 &= 1 + 2 + 3 \times 4 \times 5 + 6789. \\
6853 &= 1 + 2 \times 3 + 4^5 \times 6 + 78 \times 9. \\
6854 &= (12 + 3) \times 4 + 5 + 6789. \\
6855 &= 1 + 2^3 + 4^5 \times 6 + 78 \times 9. \\
6856 &= 1 + 2 \times 3 + 456 \times (7 + 8) + 9. \\
6857 &= 1 \times 23 + 45 + 6789. \\
6858 &= 1 + 23 + 45 + 6789. \\
6859 &= 1 \times 2 \times (3 + 4) \times 5 + 6789. \\
6860 &= 1 + 2 \times (3 + 4) \times 5 + 6789. \\
6861 &= 12 + 3 \times 4 \times 5 + 6789. \\
6862 &= 1 \times 2 \times 34 + 5 + 6789. \\
6863 &= 1 + 2 \times 34 + 5 + 6789. \\
6864 &= (1 + 2 + 3 \times 4) \times 5 + 6789. \\
6865 &= 1^2 + (3 + 4^5) \times 6 + 78 \times 9. \\
6866 &= 1 \times 2 \times (34 + 5 \times 678 + 9). \\
6867 &= 1 \times 2 \times (34 + 5) + 6789. \\
6868 &= 1 + 2 \times (34 + 5) + 6789. \\
6869 &= 1 \times 23 + 4^5 \times 6 + 78 \times 9. \\
6870 &= 12 \times 3 + 45 + 6789. \\
6871 &= 1 + (2 \times 3)^4 \times 5 + 6 \times (7 \times 8 + 9). \\
6872 &= 1 \times 23 + 456 \times (7 + 8) + 9. \\
6873 &= (1 + 2)^3 + 4^5 \times 6 + 78 \times 9. \\
6874 &= 1 + (2^3 \times 4 + 56) \times 78 + 9. \\
6875 &= 1^2 \times 3^4 + 5 + 6789. \\
6876 &= 1^2 + 3^4 + 5 + 6789. \\
6877 &= 1 \times 2 + 3^4 + 5 + 6789. \\
6878 &= 1 + 2 + 3^4 + 5 + 6789. \\
6879 &= 1 + 2 + 3 \times 4 \times 567 + 8 \times 9. \\
6880 &= 1 \times 23 + 4 + (5 + 6) \times 7 \times 89. \\
6881 &= 1 + 23 + 4 + (5 + 6) \times 7 \times 89. \\
6882 &= 12 \times 3 + 4^5 \times 6 + 78 \times 9. \\
6883 &= 1 + 2 \times 3 \times (4^5 + 6) + 78 \times 9. \\
6884 &= 1234 \times 5 + 6 \times 7 \times (8 + 9). \\
6885 &= 1 \times 2 \times (3 + 45) + 6789. \\
6886 &= 1 \times 23 \times 4 + 5 + 6789. \\
6887 &= 12 + 3^4 + 5 + 6789. \\
6888 &= 12 + 3 \times 4 \times 567 + 8 \times 9. \\
6889 &= 1 \times (2 + 3) \times 4 \times 5 + 6789. \\
6890 &= (1 + 23) \times 4 + 5 + 6789. \\
6891 &= 1 + 2 + 3 + (45 + 6) \times (7 + 8) \times 9. \\
6892 &= 1 + 2 \times 3 + (45 + 6) \times (7 + 8) \times 9. \\
6893 &= 1^2 \times 3 \times 4 \times 567 + 89. \\
6894 &= (1 + 2) \times (3 + 4) \times 5 + 6789. \\
6895 &= 1 \times 2 + 3 \times 4 \times 567 + 89. \\
6896 &= (1 + 2) \times 34 + 5 + 6789. \\
6897 &= (12 + 3^4 + 5 \times 6) \times 7 \times 8 + 9. \\
6898 &= 1 \times 234 + 56 \times 7 \times (8 + 9). \\
6899 &= 12 + 34 + (5 + 6) \times 7 \times 89. \\
6900 &= 123 \times 4 + (5 + 67) \times 89. \\
6901 &= 1 + 2 \times 3 \times 4^5 + (6 + 78) \times 9. \\
6902 &= (1 + 2)^3 \times 4 + 5 + 6789. \\
6903 &= 1^2 \times 3 + 4 \times 5 \times (6 \times 7 \times 8 + 9). \\
6904 &= 1^2 + 3 + 4 \times 5 \times (6 \times 7 \times 8 + 9). \\
6905 &= 12 + 3 \times 4 \times 567 + 89. \\
6906 &= 1 + (23 + 4^5) \times 6 + 7 \times 89. \\
6907 &= 12^3 + 4 + (567 + 8) \times 9. \\
6908 &= 1 \times 23 + (45 + 6) \times (7 + 8) \times 9. \\
6909 &= 1 \times 2 \times 3 \times 4 \times 5 + 6789. \\
6910 &= 1 + 2 \times 3 \times 4 \times 5 + 6789. \\
6911 &= 1 \times 2 + 3 \times 4 \times (567 + 8) + 9. \\
6912 &= 1 \times 23 \times 45 \times 6 + 78 \times 9. \\
6913 &= 1 + 2 \times 3^4 \times 5 + 678 \times 9. \\
6914 &= (1 + 2 \times 3 \times 4) \times 5 + 6789. \\
6915 &= 12 + 3 + 4 \times 5 \times (6 \times 7 \times 8 + 9). \\
6916 &= 12^3 + 4 + (5 + 67) \times 8 \times 9. \\
6917 &= (1 + 2 \times 3^4) \times 5 + 678 \times 9. \\
6918 &= (1 + 23 \times 45) \times 6 + 78 \times 9. \\
6919 &= (12 + 3) \times 456 + 7 + 8 \times 9. \\
6920 &= 1 \times (2 \times 3 + 4) \times (5 + 678 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6851 &= (9 + 87 + 6 + 5) \times 4^3 + 2 + 1. \\
6852 &= 9 \times ((8 + 76) \times (5 + 4) + 3) + 21. \\
6853 &= (98 + 7) \times 65 + 4 + 3 + 21. \\
6854 &= (9 \times 8 + 7 \times (6 + 5)) \times (43 + 2 + 1). \\
6855 &= 98 + 7 + (6 + 5 + 4)^3 \times 2 \times 1. \\
6856 &= 98 + 7 + (6 + 5 + 4)^3 \times 2 + 1. \\
6857 &= 9 + 8 + 76 \times (5 + 4^3 + 21). \\
6858 &= 9 \times 87 \times 6 + 5 \times 432 \times 1. \\
6859 &= 9 \times 87 \times 6 + 5 \times 432 + 1. \\
6860 &= 98 + 7 \times 6 + 5 \times 4^3 \times 21. \\
6861 &= (98 + 7) \times 65 + 4 + 32 \times 1. \\
6862 &= (98 + 7) \times 65 + 4 + 32 + 1. \\
6863 &= 98 \times (7 + 6 + 54 + 3) + 2 + 1. \\
6864 &= (9 + 8 + 7) \times 6 + 5 \times 4^3 \times 21. \\
6865 &= 9 + 8 + (7 \times 6 \times 5 + 4) \times 32 \times 1. \\
6866 &= 9 + 8 + (7 \times 6 \times 5 + 4) \times 32 + 1. \\
6867 &= 9 + 8 \times 76 + 5^4 \times (3^2 + 1). \\
6868 &= 987 \times 6 + 5^4 + 321. \\
6869 &= (9 + 87 + 6 + 5) \times 4^3 + 21. \\
6870 &= 9 \times (8 + 7 \times 6) + 5 \times 4 \times 321. \\
6871 &= (98 + 7) \times 65 + 43 + 2 + 1. \\
6872 &= 9 + (8 \times 7 + (6 + 5 + 4)^3) \times 2 + 1. \\
6873 &= 987 + 654 \times 3^2 \times 1. \\
6874 &= 987 + 654 \times 3^2 + 1. \\
6875 &= (98 + 7) \times 65 + (4 + 3)^2 + 1. \\
6876 &= (9 + 8 + 7 \times 6 \times 54) \times 3 + 21. \\
6877 &= (9 \times 8 \times 7 + 65 \times 4) \times 3^2 + 1. \\
6878 &= 9 \times 8 + 7 \times 6 \times 54 \times 3 + 2 \times 1. \\
6879 &= 9 \times 8 + 7 \times 6 \times 54 \times 3 + 2 + 1. \\
6880 &= (98 + 7) \times 6 + 5^4 \times (3^2 + 1). \\
6881 &= 98 \times (7 + 6 + 54 + 3) + 21. \\
6882 &= 9 + 87 \times (65 + 4 + 3^2 + 1). \\
6883 &= 9 + 87 \times (65 + 4 \times 3 + 2) + 1. \\
6884 &= 9 + 8 + 7 \times (6 \times 54 + 3) \times (2 + 1). \\
6885 &= (98 + 7 \times 6 + 5^4) \times 3^2 \times 1. \\
6886 &= (98 + 7 \times 6 + 5^4) \times 3^2 + 1. \\
6887 &= 9 \times (8 \times 7 + 6) \times 5 + 4^{(3 \times 2)} + 1. \\
6888 &= (9 + 8 \times 7 + 65 \times 4 + 3) \times 21. \\
6889 &= (98 + 7) \times 65 + 43 + 21. \\
6890 &= 9 + (8 + 7 + 65) \times 43 \times 2 + 1. \\
6891 &= 9 + 8 + 7 + (6 \times 54 + 3) \times 21. \\
6892 &= (98 + 7) \times 65 + 4 + 3 \times 21. \\
6893 &= (9 + 8) \times 76 \times 5 + 432 + 1. \\
6894 &= (9 \times 8 + 7) \times 6 + 5 \times 4 \times 321. \\
6895 &= (9 \times (8 + 7) + 6 + 5^4) \times 3^2 + 1. \\
6896 &= (9 \times 8 \times (7 \times 6 + 5) + 4^3) \times 2 \times 1. \\
6897 &= 9 \times 8 + 7 \times 6 \times 54 \times 3 + 21. \\
6898 &= (9 + (8 + 7 + 65) \times 43) \times 2 \times 1. \\
6899 &= 98 \times (7 + 6) + 5^4 \times 3^2 \times 1. \\
6900 &= 98 \times (7 + 6) + 5^4 \times 3^2 + 1. \\
6901 &= (9 + (87 \times 6 + 5^4) \times 3) \times 2 + 1. \\
6902 &= 9 + 8 + 765 \times (4 + 3 + 2 \times 1). \\
6903 &= 9 \times (8 \times 7 \times 6 + 5 \times 43 \times 2 + 1). \\
6904 &= 98 + 7 \times 6 \times 54 \times 3 + 2 \times 1. \\
6905 &= 98 + 7 \times 6 \times 54 \times 3 + 2 + 1. \\
6906 &= (9 + 8 \times 7 \times 6) \times 5 \times 4 + 3 + 2 + 1. \\
6907 &= (9 + 8 \times 7 \times 6) \times 5 \times 4 + 3 \times 2 + 1. \\
6908 &= (9 \times 8 + 7 + (6 + 5 + 4)^3) \times 2 \times 1. \\
6909 &= 9 \times (8 + 7 + 6) + 5 \times 4^3 \times 21. \\
6910 &= (98 + 7) \times 65 + 4^3 + 21. \\
6911 &= (98 + 7) \times 65 + 43 \times 2 \times 1. \\
6912 &= (9 + 8 + 7 + 6 \times 5) \times 4 \times 32 \times 1. \\
6913 &= (9 + 87 + 6 \times 5 \times 4) \times 32 + 1. \\
6914 &= (9 + 87) \times (65 + 4 + 3) + 2 \times 1. \\
6915 &= (9 + 87) \times (65 + 4 + 3) + 2 + 1. \\
6916 &= 987 + (65 + 4 \times 3)^2 \times 1. \\
6917 &= (9 + 8) \times 76 + 5^4 \times 3^2 \times 1. \\
6918 &= 9 \times 8 \times (76 + 5 \times 4) + 3 + 2 + 1. \\
6919 &= 9 \times 8 \times (76 + 5 \times 4) + 3 \times 2 + 1. \\
6920 &= 9 \times 8 + (7 \times 6 \times 5 + 4) \times 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6921 &= 1234 + 5678 + 9. \\
6922 &= 1 \times 2^{(3+4)} + 5 + 6789. \\
6923 &= 1 + 2^{(3+4)} + 5 + 6789. \\
6924 &= 1^2 \times 3 \times 45 + 6789. \\
6925 &= 1^2 + 3 \times 45 + 6789. \\
6926 &= 1 \times 2 + 3 \times 45 + 6789. \\
6927 &= 1 + 2 + 3 \times 45 + 6789. \\
6928 &= (1^2 + 3) \times (4^5 + 6 + 78 \times 9). \\
6929 &= (1 + 2 \times 3) \times 4 \times 5 + 6789. \\
6930 &= 1 \times 2 \times 3 \times (4^5 + 6 \times 7 + 89). \\
6931 &= 1 + 2 \times 3 \times (4^5 + 6 \times 7 + 89). \\
6932 &= 123 + 4 \times 5 + 6789. \\
6933 &= 12 \times (3 + 4 + 5) + 6789. \\
6934 &= 1^{23} + 4^5 \times 6 + 789. \\
6935 &= 1^2 + 3^4 + (5 + 6) \times 7 \times 89. \\
6936 &= 12 + 3 \times 45 + 6789. \\
6937 &= 1 + 2 \times 3456 + 7 + 8 + 9. \\
6938 &= 12 \times 3 \times 4 + 5 + 6789. \\
6939 &= 1 + 2 + 3 + 4^5 \times 6 + 789. \\
6940 &= 12 \times 3^4 + 5 + 67 \times 89. \\
6941 &= 1 \times 2^3 + 4^5 \times 6 + 789. \\
6942 &= 1 + 2^3 + 4^5 \times 6 + 789. \\
6943 &= 1 \times 2 \times (3456 + 7) + 8 + 9. \\
6944 &= 1 + 2 \times (3456 + 7) + 8 + 9. \\
6945 &= 1 \times 23 \times 4 + (5 + 6) \times 7 \times 89. \\
6946 &= 12 + 3^4 + (5 + 6) \times 7 \times 89. \\
6947 &= 12^3 \times 4 + 5 + 6 + 7 + 8 + 9. \\
6948 &= 12 + 3 + 4^5 \times 6 + 789. \\
6949 &= 1 \times 2^3 \times 4 \times 5 + 6789. \\
6950 &= 1 + 2^3 \times 4 \times 5 + 6789. \\
6951 &= 1^2 \times (3 + 4^5) \times 6 + 789. \\
6952 &= 1 + 2 \times (3456 + 7 + 8) + 9. \\
6953 &= 1 \times 2 + (3 + 4^5) \times 6 + 789. \\
6954 &= (1 + 2^3 \times 4) \times 5 + 6789. \\
6955 &= 1 \times 23 \times (4 \times 56 + 78) + 9. \\
6956 &= 1 \times 2 \times 3^4 + 5 + 6789. \\
6957 &= 123 + 45 + 6789. \\
6958 &= 1 + (2 \times 3)^4 \times 5 + 6 \times 78 + 9. \\
6959 &= 1^2 \times 34 \times 5 + 6789. \\
6960 &= 1^2 + 34 \times 5 + 6789. \\
6961 &= 1 \times 2 + 34 \times 5 + 6789. \\
6962 &= 1 + 2 + 34 \times 5 + 6789. \\
6963 &= 12 + (3 + 4^5) \times 6 + 789. \\
6964 &= (1^2 + 34) \times 5 + 6789. \\
6965 &= 1234 \times 5 + 6 + 789. \\
6966 &= 12^3 \times 4 + 5 \times 6 + 7 + 8 + 9. \\
6967 &= 1 + 2 \times 3 \times (45 + 6 + 78) \times 9. \\
6968 &= (1 + 2^3)^4 + 5 \times 67 + 8 \times 9. \\
6969 &= (1^2 + 3) \times 45 + 6789. \\
6970 &= 1 + (2 + 34) \times 5 + 6789. \\
6971 &= 12 + 34 \times 5 + 6789. \\
6972 &= 123 + 456 \times (7 + 8) + 9. \\
6973 &= 1^2 + 3 \times 4 \times (5 + 6 \times (7 + 89)). \\
6974 &= (1 + 2 + 34) \times 5 + 6789. \\
6975 &= (1 + 2 \times 345 + 6 + 78) \times 9. \\
6976 &= 12^3 \times 4 + 5 + 6 \times 7 + 8 + 9. \\
6977 &= 1 \times 2 \times 3456 + 7 \times 8 + 9. \\
6978 &= 1 + 2 \times 3456 + 7 \times 8 + 9. \\
6979 &= 1 + 2 \times 3 \times (4^5 + 67 + 8 \times 9). \\
6980 &= 1234 \times 5 + 6 \times (7 + 8) \times 9. \\
6981 &= 1 \times (2^3 + 4^5) \times 6 + 789. \\
6982 &= 1 + (2^3 + 4^5) \times 6 + 789. \\
6983 &= 1 \times (2 \times 3)^4 + 5678 + 9. \\
6984 &= 1 + (2 \times 3)^4 + 5678 + 9. \\
6985 &= 1 + (23 + 4^5) \times 6 + 78 \times 9. \\
6986 &= 1 + 2^3 \times 4 \times (5 \times 6 \times 7 + 8) + 9. \\
6987 &= 1^{23} \times 4^5 + 67 \times 89. \\
6988 &= 1^{23} + 4^5 + 67 \times 89. \\
6989 &= (12 \times 3 + 4) \times 5 + 6789. \\
6990 &= 1^2 \times 3 + 4^5 + 67 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6921 &= 9 \times 8 \times 76 + (5 + 4^3) \times 21. \\
6922 &= 9 \times 8 \times (7 \times 6 + 54) + 3^2 + 1. \\
6923 &= 98 + 7 \times 6 \times 54 \times 3 + 21. \\
6924 &= 9 + 8 \times (7 + 65) \times 4 \times 3 + 2 + 1. \\
6925 &= (9 + 87 + 65) \times 43 + 2 \times 1. \\
6926 &= 98 \times 7 + 65 \times 4 \times (3 + 21). \\
6927 &= (9 + 8 \times 7 \times 6) \times 5 \times 4 + 3^{(2+1)}. \\
6928 &= -9 \times 87 + 6^5 - 4^3 - 2 + 1. \\
6929 &= 9 + 8 + (7 + 65) \times 4 \times (3 + 21). \\
6930 &= 9 \times 8 \times 7 + 6 + 5 \times 4 \times 321. \\
6931 &= 9 \times 8 \times 76 + (5 + 4)^3 \times 2 + 1. \\
6932 &= (9 + 8 \times 7 \times 6) \times 5 \times 4 + 32 \times 1. \\
6933 &= 9 + 8 + 76 \times (5 + 43 \times 2 \times 1). \\
6934 &= 9 + 8 + 76 \times (5 + 43 \times 2) + 1. \\
6935 &= ((98 \times 7 + 6) \times 5 + 4 + 3) \times 2 + 1. \\
6936 &= 9 \times 8 \times (76 + 5 \times 4) + 3 + 21. \\
6937 &= (9 + 87 \times 6 + 5^4) \times 3 \times 2 + 1. \\
6938 &= 98 + 76 \times (5 + 4^3 + 21). \\
6939 &= 9 + (8 + 7 + 6) \times (5 + 4 + 321). \\
6940 &= 9 + 87 \times 6 \times 5 + 4321. \\
6941 &= (9 + 8) \times (7 + 6) + 5 \times 4^3 \times 21. \\
6942 &= 9 + 87 + (6 + 5 \times 4^3) \times 21. \\
6943 &= (9 + 87 + (6 + 5 + 4)^3) \times 2 + 1. \\
6944 &= 9 \times 8 \times (76 + 5 \times 4) + 32 \times 1. \\
6945 &= 9 \times 8 \times (76 + 5 \times 4) + 32 + 1. \\
6946 &= 98 + (7 \times 6 \times 5 + 4) \times 32 \times 1. \\
6947 &= 98 + (7 \times 6 \times 5 + 4) \times 32 + 1. \\
6948 &= 9 + 87 \times 65 + 4 \times 321. \\
6949 &= (9 \times 8 \times 7 + 654) \times 3 \times 2 + 1. \\
6950 &= (9 \times 8 + (7 + 6) \times (5 \times 4 + 3)^2 + 1). \\
6951 &= 9 + 87 \times 6 + 5 \times 4 \times 321. \\
6952 &= 987 \times 6 + 5 + 4(3 + 2) + 1. \\
6953 &= (98 + 7) \times 65 + 4^3 \times 2 \times 1. \\
6954 &= (98 + 7) \times 65 + 4 \times 32 + 1. \\
6955 &= (9 + 8 \times 7) \times (6 + 5 + 4 \times (3 + 21)). \\
6956 &= (9 \times 8 + 76) \times (5 \times 4 + 3^{(2+1)}). \\
6957 &= 9 \times 8 + 765 \times (4 + 3 + 2 \times 1). \\
6958 &= 9 \times 8 + 765 \times (4 + 3 + 2) + 1. \\
6959 &= ((9 \times 8 + 7) \times (6 + 5) \times 4 + 3) \times 2 + 1. \\
6960 &= 9 \times 8 + 7 \times 6 \times (54 \times 3 + 2 \times 1). \\
6961 &= 9 \times 8 + 7 \times 6 \times (54 \times 3 + 2) + 1. \\
6962 &= (98 \times 7 + 65 \times 43) \times 2 \times 1. \\
6963 &= (98 \times 7 + 65 \times 43) \times 2 + 1. \\
6964 &= (9 + 8) \times 7 \times 6 + 5^4 \times (3^2 + 1). \\
6965 &= 98 + 7 \times (6 \times 54 + 3) \times (2 + 1). \\
6966 &= 9 \times (87 + 654 + 32 + 1). \\
6967 &= 9 \times (8 + 765) + 4 + 3 + 2 + 1. \\
6968 &= 9 + 8 + 7 \times (6 \times 54 \times 3 + 21). \\
6969 &= 9 + 87 \times (65 + 4 \times 3 + 2 + 1). \\
6970 &= (98 + 7) \times 65 + (4 \times 3)^2 + 1. \\
6971 &= 9 \times (8 + 765) + 4 + 3^2 + 1. \\
6972 &= 98 + 7 + (6 \times 54 + 3) \times 21. \\
6973 &= -9 \times 87 + 6^5 + 4 - 3 - 21. \\
6974 &= ((9 + 87) \times 6 + 5) \times 4 \times 3 + 2 \times 1. \\
6975 &= 9 \times 8 \times (76 + 5 \times 4) + 3 \times 21. \\
6976 &= (9 + 87 \times 6) \times 5 + 4321. \\
6977 &= 9 \times (8 + 765) + 4 \times (3 + 2) \times 1. \\
6978 &= 9 \times (8 \times 7 + 6) + 5 \times 4 \times 321. \\
6979 &= (9 \times 8 + 7 + 6 \times 5) \times 4^3 + 2 + 1. \\
6980 &= -9 \times 87 + 6^5 - 4 \times 3 - 2 + 1. \\
6981 &= 9 \times (8 + 765) + 4 \times 3 \times 2 \times 1. \\
6982 &= 9 \times (8 + 765) + 4 \times 3 \times 2 + 1. \\
6983 &= 9 + 8 + (76 + 5) \times 43 \times 2 \times 1. \\
6984 &= 98 + 765 \times (4 + 3 + 2) + 1. \\
6985 &= (9 \times 8 + 7) \times 65 + 43^2 + 1. \\
6986 &= 98 + 7 \times 6 \times (54 \times 3 + 2 \times 1). \\
6987 &= 98 + 7 \times 6 \times (54 \times 3 + 2) + 1. \\
6988 &= 9 \times 8 + 76 \times (5 + 43 \times 2 \times 1). \\
6989 &= 9 \times 8 + 76 \times (5 + 43 \times 2) + 1. \\
6990 &= 9 \times (87 + 654) + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
6991 &= 1 \times 2 \times 3456 + 7 + 8 \times 9. \\
6992 &= 1 \times 2 + 3 + 4^5 + 67 \times 89. \\
6993 &= 1 + 2 + 3 + 4^5 + 67 \times 89. \\
6994 &= 1 + 2 \times 3 + 4^5 + 67 \times 89. \\
6995 &= 1 \times 2^3 + 4^5 + 67 \times 89. \\
6996 &= 1 + 2^3 + 4^5 + 67 \times 89. \\
6997 &= 1 + 23 \times (4 + 5) + 6789. \\
6998 &= 1 \times 23 \times 45 + 67 \times 89. \\
6999 &= 1 \times 23 \times 45 \times 6 + 789. \\
7000 &= 1 + 23 \times 45 \times 6 + 789. \\
7001 &= 12^3 \times 4 + 5 + 67 + 8 + 9. \\
7002 &= 12 + 3 + 4^5 + 67 \times 89. \\
7003 &= 1 + (2 \times 3)^4 \times 5 + 6 \times (78 + 9). \\
7004 &= 1^2 \times (345 + 67) \times (8 + 9). \\
7005 &= (1 + 23 \times 45) \times 6 + 789. \\
7006 &= 12^3 \times 4 + (5 + 6) \times 7 + 8 + 9. \\
7007 &= 12^3 \times 4 + 5 \times 6 + 7 \times 8 + 9. \\
7008 &= 1 \times 2 \times 3456 + 7 + 89. \\
7009 &= 1 + 2 \times 3456 + 7 + 89. \\
7010 &= 12^3 \times 4 + 5 + 6 + 78 + 9. \\
7011 &= 1 + 23 + 4^5 + 67 \times 89. \\
7012 &= 1 + (23 + (4 + 5)) \times (6 + 78) \times 9. \\
7013 &= 1 + 234 \times 5 \times 6 - 7 + 8 - 9. \\
7014 &= 1 \times (2 + 3) \times 45 + 6789. \\
7015 &= 1 + (2 + 3) \times 45 + 6789. \\
7016 &= 1 + 2 \times (3456 + 7) + 89. \\
7017 &= 12 \times (3 + 45 + 67 \times 8) + 9. \\
7018 &= 1 \times 234 - 5 + 6789. \\
7019 &= 12^3 \times 4 + 5 + 6 + 7 + 89. \\
7020 &= 12 + 3 \times 4 \times (567 + 8 + 9). \\
7021 &= 12^3 \times 4 + 5 \times 6 + 7 + 8 \times 9. \\
7022 &= 1 + (2^3 + 45 + 6) \times 7 \times (8 + 9). \\
7023 &= 12 \times 3 + 4^5 + 67 \times 89. \\
7024 &= 1^2 + 3 + 45 \times (67 + 89). \\
7025 &= 1 \times 2 + 3 + 45 \times (67 + 89). \\
7026 &= 1 + 2 + 3 + 45 \times (67 + 89). \\
7027 &= 1 + 2 \times 3 + 45 \times (67 + 89). \\
7028 &= 1 \times 234 + 5 + 6789. \\
7029 &= 1 + 234 + 5 + 6789. \\
7030 &= 12^3 \times 4 + 5 + (6 + 7) \times 8 + 9. \\
7031 &= 12^3 \times 4 + 5 + 6 \times 7 + 8 \times 9. \\
7032 &= 1 + 2 + (34 + 56) \times 78 + 9. \\
7033 &= 12^3 \times 4 + 56 + 7 \times 8 + 9. \\
7034 &= 1 + 2 \times (3456 + 7 \times 8) + 9. \\
7035 &= 12 + 3 + 45 \times (67 + 89). \\
7036 &= 12^3 \times 4 - 5 - 6 + (7 + 8) \times 9. \\
7037 &= (1 + 2) \times 3^4 + 5 + 6789. \\
7038 &= 12^3 \times 4 + 5 \times 6 + 7 + 89. \\
7039 &= 1 + (2 \times 3)^4 \times 5 + (6 + 7 \times 8) \times 9. \\
7040 &= 1 \times (2 + 3) \times 4 \times (5 \times 67 + 8 + 9). \\
7041 &= 12 + (34 + 56) \times 78 + 9. \\
7042 &= 1 \times 2 \times (3456 + 7 \times 8 + 9). \\
7043 &= (1 + 23) \times 45 + 67 \times 89. \\
7044 &= 1 \times 234 \times 5 \times 6 + 7 + 8 + 9. \\
7045 &= 1 + 234 \times 5 \times 6 + 7 + 8 + 9. \\
7046 &= 12^3 \times 4 - 5 + 67 + 8 \times 9. \\
7047 &= 12^3 \times 4 + 56 + 7 + 8 \times 9. \\
7048 &= 12^3 \times 4 + 5 + 6 \times 7 + 89. \\
7049 &= 12^3 \times 4 + 5 \times (6 + 7) + 8 \times 9. \\
7050 &= (1^2 + 3)^4 + 5 + 6789. \\
7051 &= 1 + (2 + 3 + 45) \times (6 + (7 + 8) \times 9). \\
7052 &= (1 + 2) \times (3 + 4) \times 5 \times 67 + 8 + 9. \\
7053 &= 12 \times (3 \times 4 + 567 + 8) + 9. \\
7054 &= 1 + 2 + 34 \times 5 \times 6 \times 7 - 89. \\
7055 &= 12^3 \times 4 + 56 + 78 + 9. \\
7056 &= 123 + 4^5 \times 6 + 789. \\
7057 &= 1 + 2 \times (3 \times 4 + 5 \times 6 + 7) \times 8 \times 9. \\
7058 &= 12^3 \times 4 + 5 + 6 + (7 + 8) \times 9. \\
7059 &= 1 \times 2 \times 3 \times 45 + 6789. \\
7060 &= 1 + 2 \times 3 \times 45 + 6789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
6991 &= 9 + (8 + (76 + 5) \times 43) \times 2 \times 1. \\
6992 &= 9 + (8 + (76 + 5) \times 43) \times 2 + 1. \\
6993 &= (9 + 87 + 6 + 5 + 4) \times 3 \times 21. \\
6994 &= 9 \times 8 + (765 + 4) \times 3^2 + 1. \\
6995 &= -9 \times 87 + 6^5 + 4 - 3 + 2 - 1. \\
6996 &= (9 + 87) \times 6 + 5 \times 4 \times 321. \\
6997 &= (9 \times 8 + 7 + 6 \times 5) \times 4^3 + 21. \\
6998 &= 9 \times (8 + 765 + 4) + 3 + 2 \times 1. \\
6999 &= 9 \times (8 + 765 + 4) + 3 + 2 + 1. \\
7000 &= 9 \times (8 + 765 + 4) + 3 \times 2 + 1. \\
7001 &= 9 + (87 + 65) \times (43 + 2 + 1). \\
7002 &= 9 + (8 + 765 + 4) \times 3^2 \times 1. \\
7003 &= 9 + (8 + 765 + 4) \times 3^2 + 1. \\
7004 &= (9 + 8) \times (7 + (6 + 5 + 4) \times 3^{(2+1)}). \\
7005 &= 98 \times 7 \times 6 + (5 + 4) \times 321. \\
7006 &= 9 \times (8 + 76) + 5^4 \times (3^2 + 1). \\
7007 &= (987 + 6 + 5) \times (4 + 3) + 21. \\
7008 &= 987 \times 6 + 543 \times 2 \times 1. \\
7009 &= 987 \times 6 + 543 \times 2 + 1. \\
7010 &= 98 + (7 + 65) \times 4 \times (3 + 21). \\
7011 &= 9 \times (87 \times 6 + 5 + 4 \times 3 \times 21). \\
7012 &= (98 + (7 + 6) \times 5) \times 43 + 2 + 1. \\
7013 &= 9 \times (8 + 7 \times 6 + (5 + 4)^3) + 2 \times 1. \\
7014 &= 98 + 76 \times (5 + 43 \times 2 \times 1). \\
7015 &= 98 + 76 \times (5 + 43 \times 2) + 1. \\
7016 &= -9 \times 87 + 6^5 + 4 \times 3 \times 2 - 1. \\
7017 &= 9 \times (8 + 765 + 4) + 3 + 21. \\
7018 &= 98 \times 76 - 5 \times 43 \times 2 \times 1. \\
7019 &= 98 + (765 + 4) \times 3^2 \times 1. \\
7020 &= 9 \times 8 \times 7 + 6 \times 543 \times 2 \times 1. \\
7021 &= 9 \times 8 \times 7 + 6 \times 543 \times 2 + 1. \\
7022 &= (9 \times 8 + 7 \times 6 \times 54) \times 3 + 2 \times 1. \\
7023 &= 9 \times 87 + 65 \times 4 \times (3 + 21). \\
7024 &= 9 \times (8 + 765) + 4 + 3 \times 21. \\
7025 &= 9 \times (8 + 765 + 4) + 32 \times 1. \\
7026 &= 9 \times (8 + 765 + 4) + 32 + 1. \\
7027 &= (9 \times (8 + 7) \times (6 + 5 \times 4) + 3) \times 2 + 1. \\
7028 &= 98 + 7 \times 6 \times (54 \times 3 + 2 + 1). \\
7029 &= 9 \times (87 + 6 + 5^4 + 3 \times 21). \\
7030 &= (98 + (7 + 6) \times 5) \times 43 + 21. \\
7031 &= (9 \times 8 + 7) \times (65 + 4 \times 3 \times 2 \times 1). \\
7032 &= 9 + 8 \times 765 + 43 \times 21. \\
7033 &= 9 \times 8 \times (7 + 65) + 43^2 \times 1. \\
7034 &= 9 \times 8 \times (7 + 65) + 43^2 + 1. \\
7035 &= 987 + 6 \times (5 + 43) \times 21. \\
7036 &= -9 \times 87 + 6^5 + 4^3 - 21. \\
7037 &= 9 + 8 \times 76 + 5 \times 4 \times 321. \\
7038 &= 9 \times 8 + (76 + 5) \times 43 \times 2 \times 1. \\
7039 &= 9 \times 8 + (76 + 5) \times 43 \times 2 + 1. \\
7040 &= (9 + 87 + 6) \times (5 + 4^3) + 2 \times 1. \\
7041 &= (9 \times 8 + 7 \times 6 \times 54) \times 3 + 21. \\
7042 &= 9 \times (8 + 765) + 4^3 + 21. \\
7043 &= 9 \times (8 + 765) + 43 \times 2 \times 1. \\
7044 &= 9 \times (8 + 765) + 43 \times 2 + 1. \\
7045 &= 9 \times 8 \times 7 + 6543 - 2 \times 1. \\
7046 &= 9 \times 8 \times 7 + 6543 - 2 + 1. \\
7047 &= 9 \times (8 + 765 + 4 + 3 + 2 + 1). \\
7048 &= ((98 \times 7 + 6) \times 5 + 4^3) \times 2 \times 1. \\
7049 &= 9 \times 8 \times 7 + 6543 + 2 \times 1. \\
7050 &= 9 \times 8 \times 7 + 6543 + 2 + 1. \\
7051 &= (9 \times (8 + 7) + 6) \times (5 + 43 + 2) + 1. \\
7052 &= (9 + 8 + (7 + 6) \times 5) \times 43 \times 2 \times 1. \\
7053 &= 9 \times (8 + 765) + 4 \times (3 + 21). \\
7054 &= -98 \times 7 + 6^5 - 4 - 32 \times 1. \\
7055 &= (9 \times 8 + 7 + 6) \times (5 \times 4 + 3 \times 21). \\
7056 &= 98 \times (7 + 6 + 54 + 3 + 2 \times 1). \\
7057 &= 98 \times (7 + 6 + 5 \times 4 + 3) \times 2 + 1. \\
7058 &= (9 + (8 + 7 \times 6 + 5) \times 4^3) \times 2 \times 1. \\
7059 &= (9 + 87 + 6) \times (5 + 4^3) + 21. \\
7060 &= 9 \times (8 + 7) \times 6 + 5^4 \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
7061 &= 12^3 \times 4 + 5 + 6 \times (7 + 8 + 9). \\
7062 &= 123 \times (45 + 6) + 789. \\
7063 &= 1 + 2 \times 3 \times (4 \times 5 + (6 + 7) \times 89). \\
7064 &= 12^3 \times 4 + 56 + 7 + 89. \\
7065 &= 12 \times (3 + 4 \times 5) + 6789. \\
7066 &= 12^3 \times 4 + 5 \times (6 + 7) + 89. \\
7067 &= (1 + 2 + 34) \times (56 + (7 + 8) \times 9). \\
7068 &= 12 + (3 + 4) \times (56 + 7 \times 8) \times 9. \\
7069 &= 1 + (2 + 3 \times 4 \times 5) \times (6 \times 7 + 8 \times 9). \\
7070 &= 123 \times (4 + 5) + 67 \times 89. \\
7071 &= 1 + 2 \times (3456 + 7 + 8 \times 9). \\
7072 &= 12 \times 34 + 56 \times 7 \times (8 + 9). \\
7073 &= 12^3 \times 4 + 5 + 67 + 89. \\
7074 &= (1 + 234) \times 5 \times 6 + 7 + 8 + 9. \\
7075 &= 1 + 2 \times 3 \times (4 + 5) \times (6 \times 7 + 89). \\
7076 &= (1 + 2^3)^4 + 5 + 6 + 7 \times 8 \times 9. \\
7077 &= 1 \times 2 \times (3456 + 78) + 9. \\
7078 &= 1 + 2 \times (3456 + 78) + 9. \\
7079 &= 1 \times 2345 + 6 \times 789. \\
7080 &= 1 + 2345 + 6 \times 789. \\
7081 &= 1 + 2 \times 3 \times 4^5 + (6 + 7) \times 8 \times 9. \\
7082 &= 1 + (23 + 45) \times (6 + 7) \times 8 + 9. \\
7083 &= 12 + 3 \times (4 \times 567 + 89). \\
7084 &= (12 + 34) \times (5 \times (6 + 7) + 89). \\
7085 &= 1 \times 234 \times 5 \times 6 + 7 \times 8 + 9. \\
7086 &= 1 + 234 \times 5 \times 6 + 7 \times 8 + 9. \\
7087 &= 12^3 \times 4 + 56 + 7 \times (8 + 9). \\
7088 &= 1 + 234 + (5 + 6) \times 7 \times 89. \\
7089 &= (12 + 3) \times 4 \times 5 + 6789. \\
7090 &= 1 + (2 \times 3 + 45) \times (67 + 8 \times 9). \\
7091 &= (1 + 234 \times 5) \times 6 + 7 \times 8 + 9. \\
7092 &= 12 \times (3 + 4 + 567 + 8 + 9). \\
7093 &= (1 + (2 \times 3^4 + 5) \times 6) \times 7 + 8 \times 9. \\
7094 &= 1 \times 2 \times (3 + 4 + 5 \times (6 + 78 \times 9)). \\
7095 &= (1 + 2^3)^4 + 5 \times 6 + 7 \times 8 \times 9. \\
7096 &= (1 + 2) \times 3^4 + (5 + 6) \times 7 \times 89. \\
7097 &= (1 + 2 \times 3) \times 4^5 - 6 + 7 - 8 \times 9. \\
7098 &= 1 \times 2 \times (3 \times 4^5 + 6 \times 78 + 9). \\
7099 &= 1 \times 234 \times 5 \times 6 + 7 + 8 \times 9. \\
7100 &= 1 + 234 \times 5 \times 6 + 7 + 8 \times 9. \\
7101 &= 1 \times 23 \times 4 \times (5 + 6) \times 7 + 8 + 9. \\
7102 &= 1 + 23 \times 4 \times (5 + 6) \times 7 + 8 + 9. \\
7103 &= (1 + 23) \times 45 \times 6 + 7 \times 89. \\
7104 &= 1 + (2 \times 3^4 + 5) \times 6 \times 7 + 89. \\
7105 &= 1 + 2 \times (3456 + 7 + 89). \\
7106 &= 1234 \times 5 + (6 + 7) \times 8 \times 9. \\
7107 &= 1 \times 234 \times 5 \times 6 + 78 + 9. \\
7108 &= 1 + 234 \times 5 \times 6 + 78 + 9. \\
7109 &= 1 \times (2 \times 3)^4 + 5 + 6 + 7 \times 89. \\
7110 &= 123 + 4^5 + 67 \times 89. \\
7111 &= 1 + 2 \times (345 + 6 \times 7 + 8) \times 9. \\
7112 &= 1 \times 2 + (34 + 56) \times (7 + 8 \times 9). \\
7113 &= 12 \times 3 \times (4 + 5) + 6789. \\
7114 &= 1 + 2 \times 3 \times 4 \times (5 \times 6 + 7) \times 8 + 9. \\
7115 &= (1 + 234) \times 5 \times 6 + 7 \times 8 + 9. \\
7116 &= 1 \times 234 \times 5 \times 6 + 7 + 89. \\
7117 &= 1 + 234 \times 5 \times 6 + 7 + 89. \\
7118 &= 12 + (3^4 \times 5 + 6 + 7) \times (8 + 9). \\
7119 &= 12 \times 3^4 + (5 + 678) \times 9. \\
7120 &= (1^2 + 3 + 4 + 5 + 67) \times 89. \\
7121 &= (1 + 2^3)^4 + 56 + 7 \times 8 \times 9. \\
7122 &= (1 + 234 \times 5) \times 6 + 7 + 89. \\
7123 &= (1 \times 23 + 4 + 56 \times 7) \times (8 + 9). \\
7124 &= (1 + 2) \times (3 + 4) \times 5 \times 67 + 89. \\
7125 &= 1 \times 2^{(3 \times 4)} + 5 + 6 \times 7 \times 8 \times 9. \\
7126 &= 12^3 \times 4^5 + 678 \times 9. \\
7127 &= 12^3 + 4^5 + 678 \times 9. \\
7128 &= (123 + 45) \times 6 \times 7 + 8 \times 9. \\
7129 &= 1 \times 2 \times 34 \times 5 + 6789. \\
7130 &= 1 + 2 \times 34 \times 5 + 6789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7061 &= 98 \times (7 + 6 + 5) \times 4 + 3 + 2 \times 1. \\
7062 &= 98 \times (7 + 6 + 5) \times 4 + 3 + 2 + 1. \\
7063 &= 98 \times (7 + 6 + 5) \times 4 + 3 \times 2 + 1. \\
7064 &= 98 + (76 + 5) \times 43 \times 2 \times 1. \\
7065 &= 9 + 8 \times 7 \times 6 + 5 \times 4^3 \times 21. \\
7066 &= 98 \times (7 + 65) + 4 + 3 + 2 + 1. \\
7067 &= 98 \times (7 + 65) + 4 + 3 \times 2 + 1. \\
7068 &= 9 \times 8 \times 7 + 6543 + 21. \\
7069 &= 98 \times (7 + 65) + 4 + 3^2 \times 1. \\
7070 &= 98 \times (7 + 65) + 4 + 3^2 + 1. \\
7071 &= 98 \times (7 + 65) + 4 \times 3 + 2 + 1. \\
7072 &= (9 + 8) \times (76 \times 5 + 4 + 32 \times 1). \\
7073 &= (9 + (876 + 5) \times 4 + 3) \times 2 + 1. \\
7074 &= (9 + 8 + 765 + 4) \times 3^2 \times 1. \\
7075 &= 9 \times (8 \times 7 \times 6 + 54 + 3) \times 2 + 1. \\
7076 &= 98 \times (7 + 65) + 4 \times (3 + 2) \times 1. \\
7077 &= (98 + 7) \times 65 + 4 \times 3 \times 21. \\
7078 &= 9 + 8 + (7 + 6) \times 543 + 2 \times 1. \\
7079 &= 9 + 8 + (7 + 6 + 5 + 4) \times 321. \\
7080 &= 98 \times (7 + 65) + 4 \times 3 \times 2 \times 1. \\
7081 &= 98 \times (7 + 65) + 4 \times 3 \times 2 + 1. \\
7082 &= 9 \times 8 + (76 + 5^4) \times (3^2 + 1). \\
7083 &= 9 \times (8 + 765 + 4 \times 3 + 2 \times 1). \\
7084 &= 98 \times (7 + 65) + 4 + 3 + 21. \\
7085 &= 9 \times (8 + 765) + 4^3 \times 2 \times 1. \\
7086 &= 9 \times (8 + 765) + 4 \times 32 + 1. \\
7087 &= 9 \times (87 + 6) + 5^4 \times (3^2 + 1). \\
7088 &= 98 \times (7 + 6 + 5) \times 4 + 32 \times 1. \\
7089 &= 98 \times (7 + 65) + 4 \times 3 + 21. \\
7090 &= 98 + 76 \times (5 + 43 \times 2 + 1). \\
7091 &= (987 + 6 + 5 \times 4) \times (3 \times 2 + 1). \\
7092 &= 98 \times (7 + 65) + 4 + 32 \times 1. \\
7093 &= 98 \times (7 + 65) + 4 + 32 + 1. \\
7094 &= 9 \times (8 + (7 + 6) \times 5 \times 4 \times 3) + 2 \times 1. \\
7095 &= (98 + (7 + 6) \times (5 + 4)) \times (32 + 1). \\
7096 &= 98 \times (7 + 65) + 4 \times (3^2 + 1). \\
7097 &= 9 + 8 + (7 + 6) \times 543 + 21. \\
7098 &= (9 \times (8 + 7) + 6 \times 5) \times 43 + 2 + 1. \\
7099 &= 9 \times 8 + 7 + 65 \times 4 \times 3^{(2+1)}. \\
7100 &= (98 + 7 \times 6 \times 54) \times 3 + 2 \times 1. \\
7101 &= 98 \times (7 + 65) + 43 + 2 \times 1. \\
7102 &= 98 \times (7 + 65) + 43 + 2 + 1. \\
7103 &= 9 + 8 + (7 + 6) \times (543 + 2) + 1. \\
7104 &= 9 \times (8 + 765) + (4 + 3) \times 21. \\
7105 &= (9 + 87) \times (65 + 4 + 3 + 2) + 1. \\
7106 &= (9 \times 87 + 6) \times (5 + 4) + 3 + 2 \times 1. \\
7107 &= (98 + 7 \times 6 \times 54 + 3) \times (2 + 1). \\
7108 &= (9 \times 87 + 6) \times (5 + 4) + 3 \times 2 + 1. \\
7109 &= 9 + (8 + (7 + 6) \times 54) \times (3^2 + 1). \\
7110 &= 9 \times (8 + 76 \times 5 + 4 + 3) \times 2 \times 1. \\
7111 &= 9 \times (8 \times 7 + 6) \times 5 + 4321. \\
7112 &= 98 \times 7 + 6 + 5 \times 4 \times 321. \\
7113 &= 9 + 8 \times (7 \times 65 + 432 + 1). \\
7114 &= 9 + (8 + 7 \times 6 \times 5 + 4) \times 32 + 1. \\
7115 &= 9 + 8 + 7 \times (6 + (5 + 43) \times 21). \\
7116 &= 9 \times 8 \times (76 + 5) + 4 \times 321. \\
7117 &= -98 \times 7 + 6^5 - 4 + 32 - 1. \\
7118 &= 98 + (7 + 6) \times 54 \times (3^2 + 1). \\
7119 &= 987 \times 6 + (54 + 3) \times 21. \\
7120 &= 98 \times (7 + 65) + 43 + 21. \\
7121 &= 9 + 8 \times 7 \times (6 + 5 \times 4 \times 3 \times 2 + 1). \\
7122 &= 98 \times (7 + 65) + 4^3 + 2 \times 1. \\
7123 &= 98 \times (7 + 65) + 4 + 3 \times 21. \\
7124 &= ((9 \times 8 + 7) \times 6 \times 5 + 4) \times 3 + 2 \times 1. \\
7125 &= 9 \times (8 + 76) \times (5 + 4) + 321. \\
7126 &= 9 \times 8 \times 7 \times 6 + 5 + 4^{(3 \times 2)} + 1. \\
7127 &= ((9 + 876 + 5) \times 4 + 3) \times 2 + 1. \\
7128 &= 9 + (87 + 6 + 5 \times 4) \times 3 \times 21. \\
7129 &= 9 \times (8 \times 7 \times 6 + 5 \times 4 \times 3) \times 2 + 1. \\
7130 &= 9 \times 8 \times (76 + 5 \times 4 + 3) + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7131 &= 1 \times 2 + 3 + 4^5 + 678 \times 9. \\
7132 &= 1 + 2 + 3 + 4^5 + 678 \times 9. \\
7133 &= 1 + 2 \times 3 + 4^5 + 678 \times 9. \\
7134 &= 1 + 234 \times 5 + 67 \times 89. \\
7135 &= 1^2 + 345 + 6789. \\
7136 &= 1 \times 2 + 345 + 6789. \\
7137 &= 1 + 2 + 345 + 6789. \\
7138 &= 1 + 23 \times 45 + 678 \times 9. \\
7139 &= 12^3 \times 4 + 5 \times 6 \times 7 + 8 + 9. \\
7140 &= 1 + 234 \times 5 \times 6 + 7 \times (8 + 9). \\
7141 &= 12 + 3 + 4^5 + 678 \times 9. \\
7142 &= (1 + 2^3)^4 + 5 + 6 \times (7 + 89). \\
7143 &= 123 + 45 \times (67 + 89). \\
7144 &= 1 \times 2^3 \times (45 \times 6 + 7 \times 89). \\
7145 &= (123 + 45) \times 6 \times 7 + 89. \\
7146 &= 12 + 345 + 6789. \\
7147 &= 1 + 2 \times 3 + (4 + 56) \times 7 \times (8 + 9). \\
7148 &= 1 \times 2^3 + (4 + 56) \times 7 \times (8 + 9). \\
7149 &= 1 \times 23 + 4^5 + 678 \times 9. \\
7150 &= 1 + 23 + 4^5 + 678 \times 9. \\
7151 &= 123 \times (45 + 6 + 7) + 8 + 9. \\
7152 &= 12 \times (3 \times 4 + 567 + 8 + 9). \\
7153 &= (1 + 2)^3 + 4^5 + 678 \times 9. \\
7154 &= 1 + 23 \times (4 \times 56 + 78 + 9). \\
7155 &= 1 \times 234 \times 5 \times 6 + (7 + 8) \times 9. \\
7156 &= 123 \times 4 + 56 \times 7 \times (8 + 9). \\
7157 &= 1^2 \times 34 \times 5 \times 6 \times 7 + 8 + 9. \\
7158 &= 1^2 + 34 \times 5 \times 6 \times 7 + 8 + 9. \\
7159 &= 1 \times 2 + 34 \times 5 \times 6 \times 7 + 8 + 9. \\
7160 &= 1 + 2 + 34 \times 5 \times 6 \times 7 + 8 + 9. \\
7161 &= 1 + 2 + 3 + (4 + 5) \times (6 + 789). \\
7162 &= 12 \times 3 + 4^5 + 678 \times 9. \\
7163 &= 1 \times 23 + (4 + 56) \times 7 \times (8 + 9). \\
7164 &= 12 \times 345 + 6 \times 7 \times 8 \times 9. \\
7165 &= 1 + 2 \times (3 \times 4 + 5 \times 6 \times 7 \times (8 + 9)). \\
7166 &= 1 + 2^{(3 \times 4)} + (5 + 6 \times 7 \times 8) \times 9. \\
7167 &= 1 \times (2 \times 3)^4 + 5 + 678 \times 9. \\
7168 &= 1 + (2 \times 3)^4 + 5 + 678 \times 9. \\
7169 &= 1 \times 2345 + 67 \times 8 \times 9. \\
7170 &= 1 + 2345 + 67 \times 8 \times 9. \\
7171 &= 1 \times (2 + 34 \times 5 \times 6) \times 7 + 8 + 9. \\
7172 &= 1 + (2 + 34 \times 5 \times 6) \times 7 + 8 + 9. \\
7173 &= 1 \times 23 \times 4 \times (5 + 6) \times 7 + 89. \\
7174 &= 1 + 23 \times 4 \times (5 + 6) \times 7 + 89. \\
7175 &= (1 + 2 \times 3) \times ((4 \times 5 \times 6 + 7) \times 8 + 9). \\
7176 &= 1 \times 2 \times 3 \times 4 \times (5 \times 6 \times 7 + 89). \\
7177 &= (123 + 4) \times 56 + 7 \times 8 + 9. \\
7178 &= (1 + 2)^3 \times 45 + 67 \times 89. \\
7179 &= 1 + 23 + (4 + 5) \times (6 + 789). \\
7180 &= (1 + 23 \times 4 \times (5 + 6)) \times 7 + 89. \\
7181 &= (1 + 2 \times 3)^4 \times 5 - 67 \times 8 \times 9. \\
7182 &= (1 + 23) \times 45 + 678 \times 9. \\
7183 &= 1 + 2 \times (3456 + (7 + 8) \times 9). \\
7184 &= 1 + 2^{(3 \times 4)} + (5 \times 67 + 8) \times 9. \\
7185 &= (1 \times 2 + 34 + 56) \times 78 + 9. \\
7186 &= 1 + (2 + 34 + 56) \times 78 + 9. \\
7187 &= 1 \times 2 + (3^4 + 5 + 6) \times 78 + 9. \\
7188 &= 1 \times (2 \times 3)^4 + 5 + 6 + 78 \times 9. \\
7189 &= 1 + (2 \times 3)^4 + 5 + 6 + 78 \times 9. \\
7190 &= 1 \times (2 \times 3 + 4) \times (5 + 6 \times 7 \times (8 + 9)). \\
7191 &= (123 + 4) \times 56 + 7 + 8 \times 9. \\
7192 &= 1 \times 2^{(3+4)} \times 56 + 7 + 8 + 9. \\
7193 &= 1 + 2^{(3+4)} \times 56 + 7 + 8 + 9. \\
7194 &= 123 \times 4 \times 5 + 6 \times 789. \\
7195 &= 1^2 + 3^4 + 5 + 6789. \\
7196 &= 1 \times 2 + 3^4 + 5 + 6789. \\
7197 &= 1 + 2 + 3^4 + 5 + 6789. \\
7198 &= (1 + 2 \times 3) \times 4^5 + 6 + 7 + 8 + 9. \\
7199 &= (123 + 4) \times 56 + 78 + 9. \\
7200 &= (12 + 3 + 4 + 56) \times (7 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7131 &= 9 \times 8 \times (76 + 5 \times 4 + 3) + 2 + 1. \\
7132 &= -98 \times 7 + 6^5 + 43 - 2 + 1. \\
7133 &= 9 \times 8 + (7 + 6) \times 543 + 2 \times 1. \\
7134 &= (9 + 8) \times 7 \times 6 + 5 \times 4 \times 321. \\
7135 &= 9 + 876 + 5^4 \times (3^2 + 1). \\
7136 &= 98 \times 76 + 5 + 4 - 321. \\
7137 &= 9 + 8 \times (76 + 5) \times (4 + 3 \times 2 + 1). \\
7138 &= 9 \times (8 + 765 + 4 \times (3 + 2)) + 1. \\
7139 &= (9 + 8) \times 7 + 65 \times 4 \times 3^{(2+1)}. \\
7140 &= (987 + 6 \times 5) \times (4 + 3) + 21. \\
7141 &= 98 \times (7 + 65) + 4^3 + 21. \\
7142 &= 98 \times (7 + 65) + 43 \times 2 \times 1. \\
7143 &= (9 + 87) \times 65 + 43 \times 21. \\
7144 &= 9 + 87 \times (6 + 5 \times (4 + 3)) \times 2 + 1. \\
7145 &= (9 + 8) \times 7 \times (6 + 54) + 3 + 2 \times 1. \\
7146 &= (9 + 8) \times 7 \times (6 + 54) + 3 \times 2 \times 1. \\
7147 &= (9 + 8) \times 7 \times (6 + 54) + 3 \times 2 + 1. \\
7148 &= 987 \times 6 + (5 \times (4 + 3))^2 + 1. \\
7149 &= 9 \times 8 \times (76 + 5 \times 4 + 3) + 21. \\
7150 &= (98 + 7) \times 65 + 4 + 321. \\
7151 &= (9 + 8 \times 7) \times (65 + 43 + 2) + 1. \\
7152 &= 9 \times 8 + (7 + 6) \times 543 + 21. \\
7153 &= 9 + 8 \times (765 + 4 \times 32 \times 1). \\
7154 &= 98 \times (7 + 6 + 54 + 3 \times 2 \times 1). \\
7155 &= (9 \times 8 \times 7 + 6 + 5^4 \times 3) \times (2 + 1). \\
7156 &= (9 \times 87 + 65 \times 43) \times 2 \times 1. \\
7157 &= (9 \times 87 + 65 \times 43) \times 2 + 1. \\
7158 &= (9 + 8 \times (7 + 6 \times 5) \times 4) \times 3 \times 2 \times 1. \\
7159 &= 98 + (7 + 6) \times 543 + 2 \times 1. \\
7160 &= 98 + (7 + 6 + 5 + 4) \times 321. \\
7161 &= 9 + 8 \times (765 + 4 \times 32 + 1). \\
7162 &= (98 + (76 + 5) \times 43) \times 2 \times 1. \\
7163 &= (98 + (76 + 5) \times 43) \times 2 + 1. \\
7164 &= (9 + 8) \times 7 \times (6 + 54) + 3 + 21. \\
7165 &= 9 \times (8 \times 7 + 6 \times (54 + 3)) \times 2 + 1. \\
7166 &= 9 \times (8 \times 7 \times 6 + 5) + 4^{(3 \times 2)} + 1. \\
7167 &= 987 + 6 \times (5 + 4(3 + 2) + 1). \\
7168 &= (98 + 7) \times 65 + (4 + 3)^{(2+1)}. \\
7169 &= (9 + 87 + 6 + 5) \times (4 + 3 \times 21). \\
7170 &= 9 + (8 + 7 + 6) \times (5 \times 4 + 321). \\
7171 &= (9 + 8 \times 7 + 6) \times (5 + 4 \times (3 + 21)). \\
7172 &= (9 + 8) \times 7 \times (6 + 54) + 32 \times 1. \\
7173 &= 9 \times (8 + 765 + 4 \times 3 \times 2 \times 1). \\
7174 &= (9 + 8) \times (7 + (65 + 4) \times 3 \times 2 + 1). \\
7175 &= 98 \times (7 + 6 + 5 \times 4 \times 3) + 21. \\
7176 &= 9 \times 8 \times (76 + 5) + 4^3 \times 21. \\
7177 &= -98 \times 7 + 6^5 + 43 \times 2 + 1. \\
7178 &= 98 + (7 + 6) \times 543 + 21. \\
7179 &= 987 \times 6 + (5^4 + 3) \times 2 + 1. \\
7180 &= (9 + 8 + 76 + 5^4) \times (3^2 + 1). \\
7181 &= (9 + 8 \times 76) \times 5 + 4^{(3+2+1)}. \\
7182 &= 987 \times 6 + 5 \times 4 \times 3 \times 21. \\
7183 &= (9 \times 87 + 6 + 5 + 4) \times 3^2 + 1. \\
7184 &= 98 \times (7 + 65) + 4^3 \times 2 \times 1. \\
7185 &= 98 \times (7 + 65) + 4 \times 32 + 1. \\
7186 &= (9 \times 87 + 654) \times (3 + 2) + 1. \\
7187 &= 9 + 8 \times (7 + 6) \times (5 + 4^3) + 2 \times 1. \\
7188 &= 98 \times (7 + 65) + 4 \times (32 + 1). \\
7189 &= (98 + 7 \times 65) \times (4 + 3^2 \times 1). \\
7190 &= (9 + 8 \times 7 + 654) \times (3^2 + 1). \\
7191 &= 9 + (8 + 7 + 6 \times 54 + 3) \times 21. \\
7192 &= (98 + 76 + 5^4) \times 3^2 + 1. \\
7193 &= (9 + 8) \times (76 \times 5 + 43) + 2 \times 1. \\
7194 &= (9 \times 8 + 7) \times 6 + 5 \times 4^3 \times 21. \\
7195 &= (9 \times 8 + 7 + 6 \times 5) \times (4^3 + 2) + 1. \\
7196 &= 98 + 7 \times (6 + (5 + 43) \times 21). \\
7197 &= 9 \times 87 - 6 + 5 \times 4 \times 321. \\
7198 &= -98 + 76 \times (5 + 43) \times 2 \times 1. \\
7199 &= 9 + 8 + 7 \times 6 \times (54 + 3) \times (2 + 1). \\
7200 &= 9 \times 8 \times 76 + 54 \times 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7201 &= 1 + (2 + 3 + 45) \times 6 \times (7 + 8 + 9). \\
7202 &= 1234 + 5 + 67 \times 89. \\
7203 &= (1 + 2^3 \times 4) \times (5 \times 6 \times 7 + 8) + 9. \\
7204 &= 1 \times (2 + 3^4) \times 5 + 6789. \\
7205 &= 1 + (2 + 3^4) \times 5 + 6789. \\
7206 &= 12 + 3^4 \times 5 + 6789. \\
7207 &= 12^3 \times 4 + 5 \times (6 \times 7 + 8 + 9). \\
7208 &= (123 + 4) \times 56 + 7 + 89. \\
7209 &= 123 \times (4 + 5) + 678 \times 9. \\
7210 &= 1 \times 2 \times (3 + 4) \times (5 + 6 + 7 \times 8 \times 9). \\
7211 &= 12^3 \times 4 + 5 \times 6 \times 7 + 89. \\
7212 &= 1^2 \times 34 \times 5 \times 6 \times 7 + 8 \times 9. \\
7213 &= 1^2 + 34 \times 5 \times 6 \times 7 + 8 \times 9. \\
7214 &= 1 \times 2 + 34 \times 5 \times 6 \times 7 + 8 \times 9. \\
7215 &= 1 + 2 + 34 \times 5 \times 6 \times 7 + 8 \times 9. \\
7216 &= (1 + 2 \times 3 + 4) \times (567 + 89). \\
7217 &= (1 + 2^3)^4 + 567 + 89. \\
7218 &= 1^2 \times 3^4 \times (5 + 6 + 78) + 9. \\
7219 &= 1^2 + 3^4 \times (5 + 6 + 78) + 9. \\
7220 &= 1 \times 2 + 3^4 \times (5 + 6 + 78) + 9. \\
7221 &= 12 + 3^4 \times (5 + 67 + 8 + 9). \\
7222 &= 1 + (23 + 4 + 56) \times (78 + 9). \\
7223 &= 123 \times (45 + 6 + 7) + 89. \\
7224 &= 12 + 34 \times 5 \times 6 \times 7 + 8 \times 9. \\
7225 &= (1 + 2^3 \times 4 + 56 \times 7) \times (8 + 9). \\
7226 &= 1 \times (2 + 34 \times 5 \times 6) \times 7 + 8 \times 9. \\
7227 &= 1 + (2 + 34 \times 5 \times 6) \times 7 + 8 \times 9. \\
7228 &= 1^{23} + (4^5 + 6) \times 7 + 8 + 9. \\
7229 &= 12 \times (34 + 567) + 8 + 9. \\
7230 &= 1^2 + 34 \times 5 \times 6 \times 7 + 89. \\
7231 &= 1 \times 2 + 34 \times 5 \times 6 \times 7 + 89. \\
7232 &= 1 + 2 + 34 \times 5 \times 6 \times 7 + 89. \\
7233 &= 1 \times 2^{(3+4)} \times 56 + 7 \times 8 + 9. \\
7234 &= 1 + 2^{(3+4)} \times 56 + 7 \times 8 + 9. \\
7235 &= 1 + 2 \times (3 \times 4^5 + 67 \times 8 + 9). \\
7236 &= 12 \times 3 \times (45 + 67 + 89). \\
7237 &= 1 + (2 \times 3)^4 \times 5 + (6 + 78) \times 9. \\
7238 &= 1 \times 2 + 3 \times 4 \times (5 + 6 + 7 \times 8) \times 9. \\
7239 &= 1 + 2 + 3 \times 4 \times (5 + 6 + 7 \times 8) \times 9. \\
7240 &= (1 + 2^3)^4 + 56 + 7 \times 89. \\
7241 &= 12 + 34 \times 5 \times 6 \times 7 + 89. \\
7242 &= 12 + 3 + (4^5 + 6) \times 7 + 8 + 9. \\
7243 &= 1 \times (2 + 34 \times 5 \times 6) \times 7 + 89. \\
7244 &= 1 + (2 + 34 \times 5 \times 6) \times 7 + 89. \\
7245 &= 12 \times (3 \times 45 + 6 \times 78) + 9. \\
7246 &= 12^3 + (4 \times 5 + 6 \times 7) \times 89. \\
7247 &= 1 \times 2^{(3+4)} \times 56 + 7 + 8 \times 9. \\
7248 &= 1 + 2^{(3+4)} \times 56 + 7 + 8 \times 9. \\
7249 &= 123 + 4^5 + 678 \times 9. \\
7250 &= 1 + 23 \times 4 \times 5 + 6789. \\
7251 &= 1 + 23 + (4^5 + 6) \times 7 + 8 + 9. \\
7252 &= (1 + 2 \times 3) \times 4^5 + 67 + 8 + 9. \\
7253 &= (1 + 2^3)^4 + 5 + 678 + 9. \\
7254 &= (12 + 3^4) \times 5 + 6789. \\
7255 &= 1^2 + 345 \times (6 + 7 + 8) + 9. \\
7256 &= (1 + 2^3)^4 + 5 \times (67 + 8 \times 9). \\
7257 &= 12 \times (34 + 5) + 6789. \\
7258 &= ((1 + 2) \times 34 + 5) \times 67 + 89. \\
7259 &= (1^2 + 34 + 56 \times 7) \times (8 + 9). \\
7260 &= 12 + (3 + 4^5 + 6) \times 7 + 8 + 9. \\
7261 &= 12 \times 34 + (5 + 6) \times 7 \times 89. \\
7262 &= 12^3 \times 4 + 5 + 6 \times 7 \times 8 + 9. \\
7263 &= (1 + 2 + 34 + 56) \times 78 + 9. \\
7264 &= 12^3 \times 4 + 5 \times 67 + 8 + 9. \\
7265 &= 123 \times (4 + 5) \times 6 + 7 \times 89. \\
7266 &= 123 \times (4 + 5 + 6 \times 7 + 8) + 9. \\
7267 &= 12^3 \times 4 + 5 \times (6 + 7 \times 8 + 9). \\
7268 &= (12 \times 3^4 + 56) \times 7 + 8 \times 9. \\
7269 &= (1 + 23) \times 45 \times 6 + 789. \\
7270 &= (1 + 2 \times 3) \times 4^5 + 6 + 7 + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7201 &= 9 \times 8 \times 76 + 54 \times 32 + 1. \\
7202 &= 98 \times 7 + 6 \times 543 \times 2 \times 1. \\
7203 &= 98 \times 7 + 6 \times 543 \times 2 + 1. \\
7204 &= 9 + (8 \times (7 + 6) + 5) \times (4^3 + 2) + 1. \\
7205 &= 9 \times 8 \times 76 + 5 + (4 \times 3)^{(2+1)}. \\
7206 &= 9 + 8 + 7 + 6 \times (54 + 3) \times 21. \\
7207 &= ((9 + 87) \times 6 + 5^4) \times 3 \times 2 + 1. \\
7208 &= 98 \times 7 + 6 \times (543 \times 2 + 1). \\
7209 &= 9 \times 87 + 6 + 5 \times 4 \times 321. \\
7210 &= 9 + (8 + 7) \times (6 + 5 + 4) \times 32 + 1. \\
7211 &= 987 \times 6 + 5 + 4 \times 321. \\
7212 &= (9 + 8) \times (76 \times 5 + 43) + 21. \\
7213 &= -9 \times 8 \times 7 + 6^5 + 4 - 3 \times 21. \\
7214 &= -9 \times 87 - 6 + (5 \times 4)^3 + 2 + 1. \\
7215 &= (98 + 7 + 6) \times 5 \times (4 + 3^2 \times 1). \\
7216 &= (98 + 7 + 6) \times 5 \times (4 + 3^2) + 1. \\
7217 &= (987 + (6 + 5) \times 4) \times (3 \times 2 + 1). \\
7218 &= 987 \times 6 + 54 \times (3 + 21). \\
7219 &= -98 \times 7 + 6^5 + 4 \times 32 + 1. \\
7220 &= -987 + 6^5 + 432 - 1. \\
7221 &= (9 + 8 \times 7 \times 6) \times 5 \times 4 + 321. \\
7222 &= -987 + 6^5 + 432 + 1. \\
7223 &= -9 \times 8 + 76 \times (5 + 43) \times 2 - 1. \\
7224 &= (9 + 8 + (76 + 5) \times 4 + 3) \times 21. \\
7225 &= (9 + 8) \times (76 \times 5 + 43 + 2 \times 1). \\
7226 &= 98 \times 7 + 654 \times (3^2 + 1). \\
7227 &= 987 + 65 \times 4 \times (3 + 21). \\
7228 &= ((9 + 8) \times (7 \times 6 + 5) + 4) \times 3^2 + 1. \\
7229 &= -9 \times 8 \times 7 + 6^5 - 4^3 + 21. \\
7230 &= 9 \times 8 \times 7 + 6 + 5 \times 4^3 \times 21. \\
7231 &= 98 \times 7 + 6543 + 2 \times 1. \\
7232 &= 98 \times 7 + 6543 + 2 + 1. \\
7233 &= 9 + 8 \times 7 \times (65 + 43 + 21). \\
7234 &= 9 + (8 \times 7 + 6 + 5 \times 4 + 3)^2 \times 1. \\
7235 &= 9 + 8 \times 7 \times (65 + 4^3) + 2 \times 1. \\
7236 &= 9 \times (87 + 654 + 3 \times 21). \\
7237 &= 9 \times (8 + 76 + 5 \times (4 \times 3)^2) + 1. \\
7238 &= 9 \times (8 \times 7 + 6 + 5) \times 4 \times 3 + 2 \times 1. \\
7239 &= 9 \times (8 \times 7 + 6 + 5) \times 4 \times 3 + 2 + 1. \\
7240 &= (9 + (8 + 7) \times 6 + 5^4) \times (3^2 + 1). \\
7241 &= 98 \times 7 \times 6 + 5^4 \times (3 + 2 \times 1). \\
7242 &= 98 \times 7 \times 6 + 5^4 \times (3 + 2) + 1. \\
7243 &= 987 + 6 + 5^4 \times (3^2 + 1). \\
7244 &= -9 \times 8 \times 7 + 6^5 + 4 - 32 \times 1. \\
7245 &= (9 + 87 + 65) \times (43 + 2 \times 1). \\
7246 &= (9 + 87 + 65) \times (43 + 2) + 1. \\
7247 &= 9 + 8 \times 7 + 6 \times (54 + 3) \times 21. \\
7248 &= 98 \times (7 + 65) + 4^3 \times (2 + 1). \\
7249 &= 9 + 8 \times (7 \times (65 + 4^3) + 2 \times 1). \\
7250 &= 98 \times 7 + 6543 + 21. \\
7251 &= 9 + 87 \times 6 + 5 \times 4^3 \times 21. \\
7252 &= 98 \times (7 + 6 + 54 + 3 \times 2 + 1). \\
7253 &= 98 \times ((7 + 6) \times 5 + 4 + 3 + 2) + 1. \\
7254 &= 9 \times 8 \times 76 + 54 \times (32 + 1). \\
7255 &= 9 \times 8 \times 7 + (6 + 5 + 4)^3 \times 2 + 1. \\
7256 &= (98 + 7) \times 65 + 432 - 1. \\
7257 &= (98 + 7) \times 65 + 432 \times 1. \\
7258 &= (98 + 7) \times 65 + 432 + 1. \\
7259 &= (9 + 8) \times 7 \times (6 + 5 \times (4 + 3 \times 2 + 1)). \\
7260 &= (9 \times 8 + (7 + 6 \times 5) \times 4) \times (32 + 1). \\
7261 &= 9 \times 8 + 7 + 6 \times (54 + 3) \times 21. \\
7262 &= 9 + 8 + 7 \times (6 + 5 + 4^3 + 2) \times 1). \\
7263 &= 9 + (87 + 6) \times (54 + 3 + 21). \\
7264 &= (9 + 87) \times 65 + 4^3 + 2 \times 1). \\
7265 &= (9 + 87) \times 65 + 4^3 + 2 + 1. \\
7266 &= (9 \times 8 + 7 \times 6 \times 5 + 4^3) \times 21. \\
7267 &= (98 \times (7 + 6 \times 5) + 4 + 3) \times 2 + 1. \\
7268 &= (9 \times 8 + 7) \times (6 + 54 + 32 \times 1). \\
7269 &= (98 + 7) \times (65 + 4) + 3 + 21. \\
7270 &= (9 + 87 + 6 + 5^4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
7271 &= (1^2 + 34 \times 5) \times 6 \times 7 + 89. \\
7272 &= 1 \times 234 \times 5 + 678 \times 9. \\
7273 &= 1 + 234 \times 5 + 678 \times 9. \\
7274 &= (1 + 2^3)^4 + 5 + 6 + 78 \times 9. \\
7275 &= 1 \times (2 \times 3)^4 \times 5 + 6 + 789. \\
7276 &= 1 + (2 \times 3)^4 \times 5 + 6 + 789. \\
7277 &= (1 + 234) \times 5 + 678 \times 9. \\
7278 &= 123 + (4 + 5) \times (6 + 789). \\
7279 &= 1 + 2 \times 3 \times (4^5 + (6 + 7 + 8) \times 9). \\
7280 &= (1 + (2 \times 3)^4) \times 5 + 6 + 789. \\
7281 &= (1 \times 234 + 567 + 8) \times 9. \\
7282 &= 1^{23} \times (4^5 + 6) \times 7 + 8 \times 9. \\
7283 &= 1 \times 2 \times 3 \times 4^5 + 67 \times (8 + 9). \\
7284 &= 123 \times 4 \times 5 + 67 \times 8 \times 9. \\
7285 &= 1^2 + 3 \times 4^5 + 6 \times 78 \times 9. \\
7286 &= 123 \times 4 + 5 + 6789. \\
7287 &= 1 + 2 + 3 \times 4^5 + 6 \times 78 \times 9. \\
7288 &= 1 + 2 + 3 + (4^5 + 6) \times 7 + 8 \times 9. \\
7289 &= 1 \times (2 + 3)^4 + 56 \times 7 \times (8 + 9). \\
7290 &= (123 + 4 + 5 + 678) \times 9. \\
7291 &= (1 + 2) \times 3 + (4^5 + 6) \times 7 + 8 \times 9. \\
7292 &= 1 \times 2 + 3^4 \times (5 + 6 + 7 + 8 \times 9). \\
7293 &= (1 + 2^3)^4 + 5 \times 6 + 78 \times 9. \\
7294 &= 1^2 + 3 + (4 + 5) \times 6 \times (7 + 8) \times 9. \\
7295 &= 1 \times 2 + 3 + (4 + 5) \times 6 \times (7 + 8) \times 9. \\
7296 &= 12 + 3 \times 4^5 + 6 \times 78 \times 9. \\
7297 &= 12 + 3 + (4^5 + 6) \times 7 + 8 \times 9. \\
7298 &= (1 \times 2 \times 3 + 4 + 5 + 67) \times 89. \\
7299 &= (1 + 2) \times 34 \times 5 + 6789. \\
7300 &= 1^{23} + (4^5 + 6) \times 7 + 89. \\
7301 &= 12 \times (34 + 567) + 89. \\
7302 &= 1^2 \times 3 + (4^5 + 6) \times 7 + 89. \\
7303 &= 1^2 + 3 + (4^5 + 6) \times 7 + 89. \\
7304 &= (1 \times 23 \times 45 + 6) \times 7 + 8 + 9. \\
7305 &= 1 + 2 + 3 + (4^5 + 6) \times 7 + 89. \\
7306 &= 1 + 23 + (4^5 + 6) \times 7 + 8 \times 9. \\
7307 &= 12^3 \times 4 + 5 + 6 \times (7 \times 8 + 9). \\
7308 &= (1 + 23 + 4 + 56) \times (78 + 9). \\
7309 &= 1234 \times 5 + 67 \times (8 + 9). \\
7310 &= (1^2 + 3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7311 &= (1 + 23 \times 45 + 6) \times 7 + 8 + 9. \\
7312 &= 1 \times 2 + (3^4 + 5) \times (6 + 7 + 8 \times 9). \\
7313 &= 1 \times (2 + 34 \times 5) \times 6 \times 7 + 89. \\
7314 &= 12 + 3 + (4^5 + 6) \times 7 + 89. \\
7315 &= 12 + (3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7316 &= 123 + (4^5 + 6) \times 7 - 8 - 9. \\
7317 &= (1 + 2)^3 \times 45 + 678 \times 9. \\
7318 &= 12 \times 3 + (4^5 + 6) \times 7 + 8 \times 9. \\
7319 &= 12^3 \times 4 + 5 \times 67 + 8 \times 9. \\
7320 &= (1 + 2 + 3 + 4) \times (5 \times 6 + 78 \times 9). \\
7321 &= 12^3 \times 4 + 56 \times 7 + 8 + 9. \\
7322 &= 1 \times 23 + (4^5 + 6) \times 7 + 89. \\
7323 &= 1 + 23 + (4^5 + 6) \times 7 + 89. \\
7324 &= (1 + 2 + 3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7325 &= 1 + (2 \times 3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7326 &= (1^2 + 345 + 6 \times 78) \times 9. \\
7327 &= 1234 \times 5 + (6 + 7) \times 89. \\
7328 &= (1 + 2) \times (3^4 \times 5 \times 6 + 7) + 8 + 9. \\
7329 &= (1 + 2)^3 \times 4 \times 5 + 6789. \\
7330 &= (1 + 2 + 3 + 4) \times (-56 + 789). \\
7331 &= (1 + 2 \times 3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7332 &= (12 + 3 + 4^5 + 6) \times 7 + 8 + 9. \\
7333 &= 123 \times (4 + 56) - 7 \times 8 + 9. \\
7334 &= 1 \times (2 + 3 + 4^5 + 6) \times 7 + 89. \\
7335 &= (1 \times 2 + 345 + 6 \times 78) \times 9. \\
7336 &= 12^3 \times 4 + 5 \times 67 + 89. \\
7337 &= (1^{23} + 4)^5 + 6 \times 78 \times 9. \\
7338 &= 1 + (2 + 3)^4 \times 5 + 6 \times 78 \times 9. \\
7339 &= 1 + (2^3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7340 &= -1 + (2 \times 3 + 4^5 + 6) \times 7 + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7271 &= 987 \times 6 + 5 + 4^3 \times 21. \\
7272 &= 9 \times 8 \times (76 + 5 \times 4 + 3 + 2 \times 1). \\
7273 &= 98 \times (7 + 6) \times 5 + 43 \times 21. \\
7274 &= 9 \times 8 \times (7 + 6 \times 5 + 4^3) + 2 \times 1. \\
7275 &= 9 \times 8 \times (7 + 6 \times 5 + 4^3) + 2 + 1. \\
7276 &= (9 + 8) \times (7 + 6 \times 5 \times (4 + 3) \times 2 + 1). \\
7277 &= (98 + 7) \times (65 + 4) + 32 \times 1. \\
7278 &= 9 + 87 + 6 \times (54 + 3) \times 21. \\
7279 &= -9 - 8 \times 7 + 6^5 - 432 \times 1. \\
7280 &= 98 + 7 \times 6 \times (54 + 3) \times (2 + 1). \\
7281 &= 9 \times (8 + 765 + 4 + 32 \times 1). \\
7282 &= 9 \times (8 + 765) + 4 + 321. \\
7283 &= 9 \times (8 + (7 + 65 \times 4) \times 3) + 2 \times 1. \\
7284 &= 9 \times (8 + (7 + 65 \times 4) \times 3) + 2 + 1. \\
7285 &= 98 \times 76 - 54 \times 3 - 2 + 1. \\
7286 &= -9 \times 8 \times 7 + 6^5 - 4 - 3 + 21. \\
7287 &= 98 + 7 + 6 \times (54 + 3) \times 21. \\
7288 &= 98 \times 76 - 54 \times 3 + 2 \times 1. \\
7289 &= 9 + 8 \times (76 + 54) \times (3 \times 2 + 1). \\
7290 &= 9 \times (8 + 765 + 4 + 32 + 1). \\
7291 &= 9 \times (8 + 7 + 6 \times 5 \times 4) \times 3 \times 2 + 1. \\
7292 &= 9 \times (8 + 7) \times (6 + 5 + 43) + 2 \times 1. \\
7293 &= 9 \times 8 \times (7 + 6 \times 5 + 4^3) + 21. \\
7294 &= (9 + 8) \times (76 \times 5 + (4 + 3)^2) + 1. \\
7295 &= 9 \times (8 + 7) \times 6 \times (5 + 4) + 3 + 2 \times 1. \\
7296 &= (98 + 76 + 54) \times 32 \times 1. \\
7297 &= (98 + 76 + 54) \times 32 + 1. \\
7298 &= (9 + (8 + 7 + 6) \times 5) \times 4^3 + 2 \times 1. \\
7299 &= 9 \times 87 + 6 \times 543 \times 2 \times 1. \\
7300 &= 9 \times 87 + 6 \times 543 \times 2 + 1. \\
7301 &= (9 + 8) \times 7 + 6 \times (54 + 3) \times 21. \\
7302 &= (9 \times 8 + 7 \times (6 + 5)) \times (4 + 3)^2 + 1. \\
7303 &= 9 + (8 \times 7 \times 65 + 4 + 3) \times 2 \times 1. \\
7304 &= (9 \times 8 \times 7 \times 6 + 5^4 + 3) \times 2 \times 1. \\
7305 &= 9 + 876 + 5 \times 4 \times 321. \\
7306 &= 98 \times 76 + 5 - (4 + 3) \times 21. \\
7307 &= 9 + 8 \times 76 \times (5 + 4 + 3) + 2 \times 1. \\
7308 &= 98 \times (7 + 65) + 4 \times 3 \times 21. \\
7309 &= 9 \times ((8 + 7) \times (6 + 5 + 43) + 2) + 1. \\
7310 &= (9 \times 8 + 7 + 6) \times (54 + 32 \times 1). \\
7311 &= 9 \times (8 + 7) \times (6 + 5 + 43) + 21. \\
7312 &= (98 + 7 + 65) \times 43 + 2 \times 1. \\
7313 &= (98 + 7 + 65) \times 43 + 2 + 1. \\
7314 &= 9 + 8 + 76 \times (5 + 43) \times 2 + 1. \\
7315 &= 98 \times 76 - 5 - 4 \times 32 \times 1. \\
7316 &= -9 - 8 + 7654 - 321. \\
7317 &= 9 + 87 \times (6 + 54 + 3 + 21). \\
7318 &= 9 + 87 \times 6 \times (5 + 4 + 3 + 2) + 1. \\
7319 &= 9 + (8 \times 7 + 6 \times 5) \times (4^3 + 21). \\
7320 &= (9 + 8 \times (7 + 6 \times 5)) \times 4 \times 3 \times 2 \times 1. \\
7321 &= 9 + 8 \times (76 \times (5 + 4 + 3) + 2 \times 1). \\
7322 &= (9 + 8 \times 7 \times 65 + 4 \times 3) \times 2 \times 1. \\
7323 &= 9 \times 87 + 654 \times (3^2 + 1). \\
7324 &= 9 \times 8 + 7 \times (6 + 5 + 4^3 + 2) + 1. \\
7325 &= (9 + (8 \times 7) \times (6 + 5 \times 4)) \times (3 + 2) \times 1. \\
7326 &= 9 \times 8 \times 76 + 5 + 43^2 \times 1. \\
7327 &= 9 \times 8 \times 76 + 5 + 43^2 + 1. \\
7328 &= 9 \times 87 + 6543 + 2 \times 1. \\
7329 &= 9 \times 87 + 6543 + 2 + 1. \\
7330 &= (9 \times 8 + 7 + 654) \times (3^2 + 1). \\
7331 &= (98 + 7 + 65) \times 43 + 21. \\
7332 &= (9 \times (8 + 7) + 6) \times (5 \times 4 + 32 \times 1). \\
7333 &= (9 \times (8 + 7) + 6) \times (5 \times 4 + 32) + 1. \\
7334 &= 9 - 8 + 7654 - 321. \\
7335 &= (98 + (7 + 6) \times 5) \times (43 + 2 \times 1). \\
7336 &= (9 \times (8 + 7) \times 6 + 5) \times (4 + 3 + 2) + 1. \\
7337 &= 9 + 8 \times 76 + 5 \times 4^3 \times 21. \\
7338 &= (98 \times (7 + 6 \times 5) + 43) \times 2 \times 1. \\
7339 &= (98 \times (7 + 6 \times 5) + 43) \times 2 + 1. \\
7340 &= ((9 + 8) \times 7 \times 6 + 5 \times 4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
7341 &= 1234 + 5 + 678 \times 9. \\
7342 &= 1 + (2 + 3^4 + 5 + 6) \times 78 + 9. \\
7343 &= (1 + 2^{(3+4)}) \times 56 + 7 \times (8 + 9). \\
7344 &= 123 \times (4 + 5) \times 6 + 78 \times 9. \\
7345 &= 123 \times 4 + (5 + 6) \times 7 \times 89. \\
7346 &= 1 + (2 + 3^4 + 5 \times 6) \times (7 \times 8 + 9). \\
7347 &= (1 + 2 + 34 + 56) \times (7 + 8 \times 9). \\
7348 &= (1 + 2 \times 3 + 4^5 + 6) \times 7 + 89. \\
7349 &= 1 + 2 \times (34 + 56 \times (7 \times 8 + 9)). \\
7350 &= 123 + (4^5 + 6) \times 7 + 8 + 9. \\
7351 &= 1 + 2 \times ((3 + 4 \times (5 + 6)) \times 78 + 9). \\
7352 &= (1234 + 5) \times 6 + 7 - 89. \\
7353 &= 1 \times 2 \times 34 \times (5 \times 6 + 78) + 9. \\
7354 &= 1 + 2 \times 34 \times (5 \times 6 + 78) + 9. \\
7355 &= (1 + 2)^3 \times 45 \times 6 + 7 \times 8 + 9. \\
7356 &= 1 + (2^3 + 4^5 + 6) \times 7 + 89. \\
7357 &= (1 + 2 \times 3) \times 4^5 + (6 + 7 + 8) \times 9. \\
7358 &= -1 + (23 \times 45 + 6) \times 7 + 8 \times 9. \\
7359 &= 1 \times (23 \times 45 + 6) \times 7 + 8 \times 9. \\
7360 &= 1 \times 23 \times (4 \times 56 + 7 + 89). \\
7361 &= 12 \times 34 \times (5 + 6 + 7) + 8 + 9. \\
7362 &= (1 + 2^3 + 4^5 + 6) \times 7 + 89. \\
7363 &= 1 + 2 \times (34 + 5 \times (67 + 8)) \times 9. \\
7364 &= (-1 + 23 + 4^5 + 6) \times 7 \times (-8 + 9). \\
7365 &= 12 \times (3 + 45) + 6789. \\
7366 &= (1 + 23 \times 45 + 6) \times 7 + 8 \times 9. \\
7367 &= (1^2 + 34) \times 5 \times 6 \times 7 + 8 + 9. \\
7368 &= 1 + (2^3 + 45) \times (67 + 8 \times 9). \\
7369 &= 1 \times 23 \times 4 \times (5 + 67 + 8) + 9. \\
7370 &= 1 + 23 \times 4 \times (5 + 67 + 8) + 9. \\
7371 &= 12^3 \times 4 + 5 \times 6 \times (7 + 8) + 9. \\
7372 &= 1 + (2 + 3 + 4) \times (5 \times 6 + 789). \\
7373 &= 1 \times 2 + (34 + 5) \times (6 + 7 + 8) \times 9. \\
7374 &= 1 + 2 + (34 + 5) \times (6 + 7 + 8) \times 9. \\
7375 &= (1 + 2 \times 3 \times 4) \times 5 \times (6 \times 7 + 8 + 9). \\
7376 &= 12^3 \times 4 + 56 \times 7 + 8 \times 9. \\
7377 &= 1 + (23 \times 45 + 6) \times 7 + 89. \\
7378 &= 1 \times 2 \times (3 + 4 + 5 \times 6 \times 7) \times (8 + 9). \\
7379 &= 1 + 2 \times (3 + 4 + 5 \times 6 \times 7) \times (8 + 9). \\
7380 &= 12 \times 3^4 + (5 + 67) \times 89. \\
7381 &= 1234 + (5 + 678) \times 9. \\
7382 &= (1^2 + 3)^4 \times 5 + 678 \times 9. \\
7383 &= (1 + 23 \times 45 + 6) \times 7 + 89. \\
7384 &= 12^3 \times 4 - 5 + 6 \times 78 + 9. \\
7385 &= 1 \times 2 + 3 \times 4 \times (5 + 6) \times 7 \times 8 - 9. \\
7386 &= (1 + 2)^3 \times 45 \times 6 + 7 + 89. \\
7387 &= (12 + 34 + 5 \times 6 + 7) \times 89. \\
7388 &= (1 + 2^3 + 4) \times 567 + 8 + 9. \\
7389 &= (123 + 4 \times 5 + 678) \times 9. \\
7390 &= 1 + 2^{(3 \times 4)} + (5 \times 6 + 7) \times 89. \\
7391 &= 12^3 \times 4 + 5 + 6 \times (7 + 8 \times 9). \\
7392 &= 1^2 \times (3 + 4) \times (5 + 6) \times (7 + 89). \\
7393 &= 12^3 \times 4 + 56 \times 7 + 89. \\
7394 &= 12^3 \times 4 + 5 + 6 \times 78 + 9. \\
7395 &= (1 + 23 + 4^5 + 6) \times 7 + 8 + 9. \\
7396 &= (1 \times 2 + 3^4) \times (5 + 6 + 78) + 9. \\
7397 &= 1 + (2 + 3^4) \times (5 + 6 + 78) + 9. \\
7398 &= (1 + 2) \times 3 \times (4 \times 5 \times 6 + 78 \times 9). \\
7399 &= 1 + 2 \times (3 + (4 + 5 + 6 \times 7) \times 8) \times 9. \\
7400 &= (1 + 2) \times (3^4 \times 5 \times 6 + 7) + 89. \\
7401 &= 1^2 \times 3 \times 4 \times (5 + 6) \times 7 \times 8 + 9. \\
7402 &= 1 \times 2 \times (3 \times 4^5 + 6 + 7 \times 89). \\
7403 &= 1 \times (2 \times 3)^4 + 5 + 678 \times 9. \\
7404 &= 123 \times (4 + 56) + 7 + 8 + 9. \\
7405 &= 123 + (4^5 + 6) \times 7 + 8 \times 9. \\
7406 &= (12 + 34) \times (5 + 67 + 89). \\
7407 &= 12^3 \times 4 + (5 + 6 \times 7 + 8) \times 9. \\
7408 &= 1 \times 2^3 \times (4 \times 56 + 78 \times 9). \\
7409 &= (1 \times 2 \times (3 + 456) + 7) \times 8 + 9. \\
7410 &= 1 \times 2 \times (3 + (4 + 5) \times 6) \times (7 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7341 &= -98 \times 7 + 6 + (5 \times 4)^3 + 21. \\
7342 &= 9 \times 876 - 543 + 2 - 1. \\
7343 &= 98 + 7 \times (6 + 5 + 4^3 + 2 \times 1)). \\
7344 &= 9 \times 8 \times (76 + 5 \times 4 + 3 + 2 + 1). \\
7345 &= 9 + 8 \times 7 \times (65 + 4^3 + 2 \times 1). \\
7346 &= 9 \times 8 \times (7 \times 6 + 5 \times 4 \times 3) + 2 \times 1. \\
7347 &= 9 \times 87 + 6543 + 21. \\
7348 &= 9 \times 8 \times 76 + 5^4 \times 3 + 2 - 1. \\
7349 &= 9 \times 8 \times 76 + 5^4 \times 3 + 2 \times 1. \\
7350 &= 9 \times 8 \times 7 \times 6 + 5 + 4321. \\
7351 &= (9 + 8 + 7 + 6) \times 5 \times (4 + 3)^2 + 1. \\
7352 &= 98 \times ((7 + 6 + 5) \times 4 + 3) + 2 \times 1. \\
7353 &= (9 \times 87 + 6 \times 5 + 4) \times 3^2 \times 1. \\
7354 &= (9 \times 87 + 6 \times 5 + 4) \times 3^2 + 1. \\
7355 &= -9 - 87 + 6^5 - 4 - 321. \\
7356 &= 9 \times 8 \times (7 + 6) + 5 \times 4 \times 321. \\
7357 &= 98 \times 76 - 5 - 43 \times 2 \times 1. \\
7358 &= 98 \times 76 - 5 - 43 \times 2 + 1. \\
7359 &= 9 + (87 + 65 \times 4 + 3) \times 21. \\
7360 &= (98 + 7 + 6 + 5^4) \times (3^2 + 1). \\
7361 &= ((9 + 8) \times (7 + 6) + 5 + 4) \times 32 + 1. \\
7362 &= 9 \times (8 + 765 + 43 + 2 \times 1). \\
7363 &= (9 + 8) \times 76 \times 5 + 43 \times 21. \\
7364 &= 98 \times 7 \times 6 + (54 + 3)^2 - 1. \\
7365 &= 98 \times 7 \times 6 + (54 + 3)^2 \times 1. \\
7366 &= 98 \times 7 \times 6 + (54 + 3)^2 + 1. \\
7367 &= 9 + (8 \times 76 + 5) \times 4 \times 3 + 2 \times 1. \\
7368 &= 9 \times 8 \times 76 + 5^4 \times 3 + 21. \\
7369 &= 9 \times 8 + 76 \times (5 + 43) \times 2 + 1. \\
7370 &= 9 + 8 \times 76 \times 5 + 4321. \\
7371 &= (98 + 7 \times 6 \times 5 + 43) \times 21. \\
7372 &= (9 \times (8 + 7) \times 6 + 5 + 4) \times 3^2 + 1. \\
7373 &= 9 \times (87 + 6 \times 5) \times (4 + 3) + 2 \times 1. \\
7374 &= 9 + 8 + 7 + 6 \times (5 \times (4 + 3))^2 \times 1. \\
7375 &= 9 + (8 \times 7 \times 65 + 43) \times 2 \times 1. \\
7376 &= 9 + (8 \times 7 \times 65 + 43) \times 2 + 1. \\
7377 &= 98 \times (7 + 6 + 5) \times 4 + 321. \\
7378 &= (9 \times 8 + 7 \times 65) \times (4 + 3^2 + 1). \\
7379 &= (9 \times 8 + 7 \times 65) \times (4 + 3) \times 2 + 1. \\
7380 &= 987 \times 6 + (5 + 4)^3 \times 2 \times 1. \\
7381 &= 98 \times (7 + 65) + 4 + 321. \\
7382 &= 98 \times 76 - 5 - 4^3 + 2 + 1. \\
7383 &= 98 \times 76 - 5 \times (4 + 3^2) \times 1. \\
7384 &= (9 + 8 \times 7 \times 65 + 43) \times 2 \times 1. \\
7385 &= (9 + 8 \times 7 \times 65 + 43) \times 2 + 1. \\
7386 &= 9 + (8 \times 76 + 5) \times 4 \times 3 + 21. \\
7387 &= 9 + (87 \times 6 + 5) \times (4 + 3) \times 2 \times 1. \\
7388 &= 9 + 8 + (7 + 6) \times (5 + 4) \times 3 \times 21. \\
7389 &= 9 \times (8 + 765) + 432 \times 1. \\
7390 &= 9 \times (8 + 765) + 432 + 1. \\
7391 &= 98 \times 76 - 5 \times 4 \times 3 + 2 + 1. \\
7392 &= (9 + 8 + 7 \times 6 \times 5 + 4) \times 32 \times 1. \\
7393 &= 9 \times 8 \times 7 \times (6 + 5) + 43^2 \times 1. \\
7394 &= 98 + 76 \times (5 + 43) \times 2 \times 1. \\
7395 &= 98 + 76 \times (5 + 43) \times 2 + 1. \\
7396 &= (9 + 8 + 7 \times 6 + (5 + 4) \times 3)^2 \times 1. \\
7397 &= (9 \times 8 \times 7 + 65) \times (4 + 3^2 \times 1). \\
7398 &= (9 \times 8 \times 7 + 654 \times 3) \times (2 + 1). \\
7399 &= 98 \times (7 + 65) + (4 + 3)^{(2+1)}. \\
7400 &= (9 \times 8 + 76) \times 5 \times (4 + 3 + 2 + 1). \\
7401 &= 9 + 8 \times 7 \times (65 + 4 + 3 \times 21). \\
7402 &= 9 + 8 \times (7 \times 65 + 4 + 3) \times 2 + 1. \\
7403 &= 9 + 8 \times 7 \times (6 + 5) \times 4 \times 3 + 2 \times 1. \\
7404 &= 9 + 8 \times 7 \times (6 + 5) \times 4 \times 3 + 2 + 1. \\
7405 &= 9 + (8 \times 7 + 6 \times 5) \times 43 \times 2 \times 1. \\
7406 &= (9 + 8 \times 76) \times 5 + 4321. \\
7407 &= 9 + (8 \times 76 + 5^4) \times 3 \times 2 \times 1. \\
7408 &= 9 + (8 \times 76 + 5^4) \times 3 \times 2 + 1. \\
7409 &= 9 + 8 + 7 \times (6 + 5) \times 4 \times (3 + 21). \\
7410 &= (9 + 8 \times 7) \times 6 \times (5 + 4 \times 3 + 2 \times 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
7411 &= 1 + (2 + 3 \times 4 + 5) \times 6 \times (7 \times 8 + 9). \\
7412 &= 1 \times 2 \times 34 \times (5 \times 6 + 7 + 8 \times 9). \\
7413 &= 123 + (4 + 5) \times 6 \times (7 + 8) \times 9. \\
7414 &= (1 + 2 \times 3 + 4) \times (5 + 678 - 9). \\
7415 &= -1 + 2 \times 3456 + 7 \times 8 \times 9. \\
7416 &= 1 \times 2 \times 3456 + 7 \times 8 \times 9. \\
7417 &= 1 + 2 \times 3456 + 7 \times 8 \times 9. \\
7418 &= 1 + (2 + 3 \times 4 \times (5 + 6) \times 7) \times 8 + 9. \\
7419 &= 12^3 + 4 + 5678 + 9. \\
7420 &= 1 + (2 + 3)^4 + 5 + 6789. \\
7421 &= 1^2 \times 34 \times (5 \times 6 \times 7 + 8) + 9. \\
7422 &= 123 + (4^5 + 6) \times 7 + 89. \\
7423 &= 1 \times 2 + 34 \times (5 \times 6 \times 7 + 8) + 9. \\
7424 &= (123 + 4) \times 5 + 6789. \\
7425 &= (12 + 345 + 6 \times 7) \times 9. \\
7426 &= (1 \times 2 + 3^4 + 5 + 6) \times (7 + 8 \times 9). \\
7427 &= 12^3 + 4 + 5 \times 67 \times (8 + 9). \\
7428 &= (1 + 2^3)^4 + (5 + 6) \times 78 + 9. \\
7429 &= 1 \times 2^{(3+4)} \times 5 + 6789. \\
7430 &= 1 + 2^{(3+4)} \times 5 + 6789. \\
7431 &= 123 \times (4 + 5) \times 6 + 789. \\
7432 &= 1 \times 2^3 \times (4 \times 5 \times 6 \times 7 + 89). \\
7433 &= 12 + 34 \times (5 \times 6 \times 7 + 8) + 9. \\
7434 &= (1 + 2^{(3+4)}) \times 5 + 6789. \\
7435 &= 1 + (2 \times 34 \times (5 + 6) + 78) \times 9. \\
7436 &= 1 \times 2^3 \times 4^5 - (6 + 78) \times 9. \\
7437 &= 12 + ((3 \times 45 \times 6 + 7) + 8) \times 9. \\
7438 &= 12^3 \times 4 - 5 + (67 - 8) \times 9. \\
7439 &= 12^3 \times 4 + 5 + 6 \times (78 + 9). \\
7440 &= (12 + 3^4) \times (56 + 7 + 8 + 9). \\
7441 &= 12^3 \times 4 + 5 \times (6 + 7) \times 8 + 9. \\
7442 &= 1 \times 2 \times (3^4 + 56 \times (7 \times 8 + 9)). \\
7443 &= (12 \times 3 \times 4 + 5 + 678) \times 9. \\
7444 &= 1 + (23 + 4^5 + 6) \times 7 + 8 \times 9. \\
7445 &= 123 \times (4 + 56) + 7 \times 8 + 9. \\
7446 &= 12^3 \times 4 + 5 \times 6 + 7 \times 8 \times 9. \\
7447 &= 1 + (2 \times 34 + 5) \times (6 + 7 + 89). \\
7448 &= -1 + 2 \times 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
7449 &= 1 \times 2 \times 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
7450 &= 1 + 2 \times 3 \times 4 \times 5 \times (6 + 7 \times 8) + 9. \\
7451 &= 1 \times 2^3 \times (4^5 + 6) - 789. \\
7452 &= 12 \times 3 \times (4 \times 5 \times 6 + 78 + 9). \\
7453 &= 1 + 2 \times 3 \times (4 + 56 + 78) \times 9. \\
7454 &= 1 \times 2 + (3 \times 4 \times ((5 + 6) \times 7 - 8) \times 9). \\
7455 &= (12 + 3) \times (4 \times 5 + 6 \times 78 + 9). \\
7456 &= (1234 - 5) \times 6 - 7 + 89. \\
7457 &= (12 \times (3 + 4) \times (5 + 6) + 7) \times 8 + 9. \\
7458 &= (1234 + 5) \times 6 + 7 + 8 + 9. \\
7459 &= 123 \times (4 + 56) + 7 + 8 \times 9. \\
7460 &= (1 + 2^3 + 4) \times 567 + 89. \\
7461 &= 1 + (23 + 4^5 + 6) \times 7 + 89. \\
7462 &= 12^3 \times 4 + 5 + 67 \times 8 + 9. \\
7463 &= (12 + 3) \times 456 + 7 \times 89. \\
7464 &= (12 + 3) \times 45 + 6789. \\
7465 &= (12 + 3 + 4) \times 56 \times 7 + 8 + 9. \\
7466 &= 1 + 2 \times (3 + 456 + 7) \times 8 + 9. \\
7467 &= 123 \times (4 + 56) + 78 + 9. \\
7468 &= -1 \times 23 \times 4 + 56 \times (7 + 8) \times 9. \\
7469 &= (1 + 2 \times 3 + 4) \times (56 + 7 \times 89). \\
7470 &= 1 \times 2 \times 3 \times (456 + 789). \\
7471 &= 1 + 2 \times 3 \times (456 + 789). \\
7472 &= 12^3 \times 4 + 56 + 7 \times 8 \times 9. \\
7473 &= 12 \times (3^4 + 5 + 67 \times 8) + 9. \\
7474 &= 1 + (2^3 + 45) \times (6 + (7 + 8) \times 9). \\
7475 &= 12^3 \times 4 + 5 + (6 + 7 \times 8) \times 9. \\
7476 &= 123 \times (4 + 56) + 7 + 89. \\
7477 &= 1 + (23 + (4 + 5) \times 6 + 7) \times 89. \\
7478 &= (1 \times 2 + 3)^4 + (5 + 6) \times 7 \times 89. \\
7479 &= 1 \times 2 \times 345 + 6789. \\
7480 &= 1 + 2 \times 345 + 6789.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7411 &= (9 + 8 \times 7) \times 6 \times (5 + 4 \times 3 + 2) + 1. \\
7412 &= 98 \times 7 + 6 + 5 \times 4^3 \times 21. \\
7413 &= 987 + 6 + 5 \times 4 \times 321. \\
7414 &= (9 + (8 \times 7 + 6 \times 5) \times 43) \times 2 \times 1. \\
7415 &= (9 + (8 \times 7 + 6 \times 5) \times 43) \times 2 + 1. \\
7416 &= 9 \times 8 \times (7 \times 6 + 54 + 3 \times 2 + 1). \\
7417 &= 9 + (8 \times 7 \times 65 + 4^3) \times 2 \times 1. \\
7418 &= 9 + (8 \times 7 \times 65 + 4^3) \times 2 + 1. \\
7419 &= 9 \times 8 \times (76 + (5 + 4) \times 3) + 2 + 1. \\
7420 &= (98 + 7 \times 6) \times (5 \times 4 + 32 + 1). \\
7421 &= (9 + 8 \times 7 \times (6 + 5) \times 4) \times 3 + 2 \times 1. \\
7422 &= 9 + 8 \times 7 \times (6 + 5) \times 4 \times 3 + 21. \\
7423 &= 98 \times 76 - 5 + 4 - 3 - 21. \\
7424 &= (98 + 7 + 6 + 5) \times (43 + 21). \\
7425 &= 9 \times (8 \times 76 + 5 \times 43 + 2 \times 1). \\
7426 &= (98 + 7 + 6 + 5) \times 4^3 + 2 \times 1. \\
7427 &= 9 \times (8 + 7 + 65 \times 4) \times 3 + 2 \times 1. \\
7428 &= 9 \times (8 + 7 + 65 \times 4) \times 3 + 2 + 1. \\
7429 &= (9 \times 8 + 7) \times (6 \times 5 + 4^3) + 2 + 1. \\
7430 &= 9 \times 8 + 7 + 6 \times (5 \times (4 + 3))^2 + 1. \\
7431 &= 98 + 7654 - 321. \\
7432 &= 98 \times 76 - 5 - 4 - 3 \times 2 - 1. \\
7433 &= 98 \times 76 + 5 + 4 - 3 - 21. \\
7434 &= (9 + 8) \times 7 \times 6 + 5 \times 4^3 \times 21. \\
7435 &= 9 \times (87 + 6 + 5 \times 4^3) \times 2 + 1. \\
7436 &= 98 \times 7 + (6 + 5 + 4)^3 \times 2 \times 1. \\
7437 &= 98 \times 7 + (6 + 5 + 4)^3 \times 2 + 1. \\
7438 &= 98 \times 76 + 5 - 4 \times 3 - 2 - 1. \\
7439 &= 98 \times 76 + 54 - 3 \times 21. \\
7440 &= (9 + 8 \times 7 \times (6 + 5) \times 4) \times 3 + 21. \\
7441 &= (9 \times 8 + 76 \times (5 + 43)) \times 2 + 1. \\
7442 &= 98 \times 76 - 5 + 4 - 3 - 2 \times 1. \\
7443 &= (9 \times 87 + (6 + 5) \times 4) \times 3^2 \times 1. \\
7444 &= (9 \times 87 + (6 + 5) \times 4) \times 3^2 + 1. \\
7445 &= (98 + 7 + 6 + 5) \times 4^3 + 21. \\
7446 &= 9 \times (8 + 7 + 65 \times 4) \times 3 + 21. \\
7447 &= (9 \times 8 + 7) \times (6 \times 5 + 4^3) + 21. \\
7448 &= 98 \times (7 + 6 + 54 + 3^2 \times 1). \\
7449 &= 9 + (8 \times 7 + 6) \times 5 \times 4 \times 3 \times 2 \times 1. \\
7450 &= 9 + (8 \times 7 + 6) \times 5 \times 4 \times 3 \times 2 + 1. \\
7451 &= 9 \times 8 + 7 \times (6 \times 5 + 4(3 + 2)) + 1. \\
7452 &= 9 \times (87 + 6 \times 54 + 3) \times 2 \times 1. \\
7453 &= 98 \times (7 + 65 + 4) + 3 + 2 \times 1. \\
7454 &= 98 \times (7 + 65 + 4) + 3 + 2 + 1. \\
7455 &= (98 + 7 \times 6 + 5 \times 43) \times 21. \\
7456 &= 98 + 7 + 6 \times (5 \times (4 + 3))^2 + 1. \\
7457 &= 98 \times (7 + 65 + 4) + 3^2 \times 1. \\
7458 &= 98 \times (7 + 65 + 4) + 3^2 + 1. \\
7459 &= (9 + (8 \times 7 + 6) \times 5 \times 4 \times 3) \times 2 + 1. \\
7460 &= (98 \times 7 + 6 + 54) \times (3^2 + 1). \\
7461 &= (9 + 8) \times 7 \times (6 + 54) + 321. \\
7462 &= 98 \times 76 + 5 + 4 + 3 + 2 \times 1. \\
7463 &= 98 \times 76 + 5 + 4 + 3 + 2 + 1. \\
7464 &= 98 \times 76 + 5 + 4 + 3 \times 2 + 1. \\
7465 &= 9 + (8 + 7) \times (65 + 432) + 1. \\
7466 &= 98 \times 76 + 5 + 4 + 3^2 \times 1. \\
7467 &= 98 \times 76 + 5 + 4 + 3^2 + 1. \\
7468 &= 98 \times 76 + 5 + 4 \times 3 + 2 + 1. \\
7469 &= 98 + (7 + 6) \times (5 + 4) \times 3 \times 21. \\
7470 &= 98 + 76 \times ((5 + 43) \times 2 + 1). \\
7471 &= (98 + 7) \times 6 \times 5 + 4321. \\
7472 &= 98 \times (7 + 65 + 4) + 3 + 21. \\
7473 &= 98 \times 76 + 5 \times 4 + 3 + 2 \times 1. \\
7474 &= 98 \times 76 + 5 \times 4 + 3 + 2 + 1. \\
7475 &= 98 \times 76 + 5 \times 4 + 3 \times 2 + 1. \\
7476 &= 9 \times (8 + 76) + 5 \times 4^3 \times 21. \\
7477 &= 98 \times 76 + 5 + 4 \times 3 \times 2 \times 1. \\
7478 &= 98 \times 76 + 5 + 4 \times 3 \times 2 + 1. \\
7479 &= 9 + (8 + 7) \times (65 + 432 + 1). \\
7480 &= 98 \times (7 + 65 + 4) + 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7481 &= 1 + 2^{(3 \times 4)} + (5 + 6 \times 7) \times 8 \times 9. \\
7482 &= 12^3 \times 4 + 5 \times (6 \times 7 + 8 \times 9). \\
7483 &= -1 + 2^3 \times 4^5 - 6 - 78 \times 9. \\
7484 &= (1 + 2^3 + 4) \times (567 + 8) + 9. \\
7485 &= 12 \times (3 + 4) \times (5 + 6 + 78) + 9. \\
7486 &= 12^3 + 4^5 + 6 \times 789. \\
7487 &= -1 - 234 + (5 + 6) \times 78 \times 9. \\
7488 &= 12^3 + (4 + 56) \times (7 + 89). \\
7489 &= 1 + 2 \times (34 + 5 + 6 + 7) \times 8 \times 9. \\
7490 &= 1 \times 2 + (3 + 45) \times (67 + 89). \\
7491 &= 1 + 2 + 3 \times (4 \times 5 + 6) \times (7 + 89). \\
7492 &= -1 \times 2 \times 34 + 56 \times (7 + 8) \times 9. \\
7493 &= 12^3 \times 4 + 5 + 6 \times (7 + 89). \\
7494 &= 1 \times 2 \times 3 \times (4 \times 5 \times (6 + 7 \times 8) + 9). \\
7495 &= 1 \times 2^{(3 \times 4)} + 5 \times 678 + 9. \\
7496 &= 12^3 \times 4 + 567 + 8 + 9. \\
7497 &= (12 \times 3 + 4 + 56) \times 78 + 9. \\
7498 &= 1 + 2^3 \times (4 + 5) \times (6 + 7) \times 8 + 9. \\
7499 &= (1234 + 5) \times 6 + 7 \times 8 + 9. \\
7500 &= 12 + (3 + 45) \times (67 + 89). \\
7501 &= 1 + 2 \times (3 + 4 + 5 + 6 \times 7 \times 89). \\
7502 &= (1 + 2^3)^4 + 5 + (6 + 7) \times 8 \times 9. \\
7503 &= 1 + 2 + 3 \times 4 \times 5 \times (6 + 7 \times (8 + 9)). \\
7504 &= -1 + 2^3 \times 4^5 - 678 - 9. \\
7505 &= (123 + 4^5) \times 6 + 7 \times 89. \\
7506 &= (12 + 345) \times (6 + 7 + 8) + 9. \\
7507 &= 1 \times 23 \times (45 \times 6 + 7 \times 8) + 9. \\
7508 &= 1 + 23 \times (45 \times 6 + 7 \times 8) + 9. \\
7509 &= 12 \times 3 \times 4 \times 5 + 6789. \\
7510 &= 1 \times 2 \times (3 \times 4 + 5 + 6 \times 7 \times 89). \\
7511 &= 1 + 2 \times (3 \times 4 + 5 + 6 \times 7 \times 89). \\
7512 &= 12 + 3 \times 4 \times 5 \times (6 + 7 \times (8 + 9)). \\
7513 &= (1234 + 5) \times 6 + 7 + 8 \times 9. \\
7514 &= 1 + (2 + 3 + 4 + 5) \times 6 \times 8 + 9. \\
7515 &= (123 \times 4 + 5 \times 67 + 8) \times 9. \\
7516 &= -1 + 2^3 \times 4^5 - (67 + 8) \times 9. \\
7517 &= 12^3 + 4 + 5 \times (6 + 7) \times 89. \\
7518 &= 1 \times 2 \times (3 \times 4^5 + 678 + 9). \\
7519 &= 1 + 2 \times (3 \times 4^5 + 678 + 9). \\
7520 &= (12 + 3 + 4) \times 56 + 7 + 8 \times 9. \\
7521 &= (1234 + 5) \times 6 + 78 + 9. \\
7522 &= 1 \times 2 \times (3 + 4 \times 5 + 6 \times 7 \times 89). \\
7523 &= 1 + 2 \times (3 + 4 \times 5 + 6 \times 7 \times 89). \\
7524 &= 12 \times (3 + 4 \times 5 \times 6 + 7 \times 8 \times 9). \\
7525 &= 1 + 234 \times 5 \times 6 + 7 \times 8 \times 9. \\
7526 &= 1 + 2 \times 3^4 \times (5 + 6 \times 7) - 89. \\
7527 &= (1 + 2) \times (3^4 \times 5 \times 6 + 7 + 8 \times 9). \\
7528 &= (1^2 + 3 + 4) \times (5 + (6 + 7) \times 8 \times 9). \\
7529 &= 1 \times (2 + 3) \times 4 \times (5 + 6 \times 7) \times 8 + 9. \\
7530 &= 1 \times 2 \times (3 \times (4 + 5) + 6 \times 7 \times 89). \\
7531 &= 1 \times 2^{(3 \times 4)} + 5 \times (678 + 9). \\
7532 &= 1 + 2^{(3 \times 4)} + 5 \times (678 + 9). \\
7533 &= (12 + 3 \times 45 \times 6 + 7 + 8) \times 9. \\
7534 &= (12 \times 3 + 4^5 + 6) \times 7 + 8 \times 9. \\
7535 &= 1 \times 2 \times 3456 + 7 \times 89. \\
7536 &= 1 + 2 \times 3456 + 7 \times 89. \\
7537 &= 12^3 \times 4 + (5 + 6) \times 7 \times 8 + 9. \\
7538 &= 12 - 34 + 56 \times (7 + 8) \times 9. \\
7539 &= -1 - (2 + 3) \times 4 + 56 \times (7 + 8) \times 9. \\
7540 &= ((12 + 3) \times 4 + 56) \times (7 \times 8 + 9). \\
7541 &= 12^3 \times 4 + (5 \times 6 + 7) \times (8 + 9). \\
7542 &= (12 + 3) \times 456 + 78 \times 9. \\
7543 &= 1 + ((2^3 \times 4) \times 5 + 678) \times 9. \\
7544 &= 1 \times 23 \times 4 \times (5 \times (6 + 7) + 8 + 9). \\
7545 &= 12 \times (3 \times 4 + (5 + 6) \times 7 \times 8) + 9. \\
7546 &= 12^3 \times 4 + 5 + 6 + 7 \times 89. \\
7547 &= 1 + 2 \times ((3 + 4) \times 5 + 6 \times 7 \times 89). \\
7548 &= (1 \times 234 + 5 \times 6 \times 7) \times (8 + 9). \\
7549 &= 1 + 2 \times (3 \times 4 + 5 \times 6 \times 7) \times (8 + 9). \\
7550 &= 1 \times 2 + 3 \times 4 \times (5 \times 6 + 7) \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7481 &= 98 \times 76 + 5 + 4 + 3 + 21. \\
7482 &= 98 \times 76 + (5 + 4 \times 3) \times 2 \times 1. \\
7483 &= (987 + 65 \times 4) \times 3 \times 2 + 1. \\
7484 &= 98 \times 76 + 5 + 4 + 3^{(2+1)}. \\
7485 &= (9 + 8 \times 76 + 5) \times 4 \times 3 + 21. \\
7486 &= 98 \times 76 + 5 + 4 \times 3 + 21. \\
7487 &= 98 \times 76 + 5 \times 4 \times 3 - 21. \\
7488 &= 98 \times (7 + 65) + 432 \times 1. \\
7489 &= 98 \times 76 + 5 + 4 + 32 \times 1. \\
7490 &= 98 \times 76 + 5 + 4 + 32 + 1. \\
7491 &= (9 + 87) \times (6 + 5 \times 4) \times 3 + 2 + 1. \\
7492 &= 98 \times 76 + 5 \times 4 + 3 + 21. \\
7493 &= 98 \times 76 + 5 + 4 \times (3^2 + 1). \\
7494 &= 98 \times 76 + (5 \times 4 + 3) \times 2 \times 1. \\
7495 &= 98 \times 76 + (5 \times 4 + 3) \times 2 + 1. \\
7496 &= 98 \times 76 + (5 + 4) \times 3 + 21. \\
7497 &= (9 + 8 \times 7 \times 6 + 5 + 4 + 3) \times 21. \\
7498 &= 98 \times 76 + 5 + 43 + 2 \times 1. \\
7499 &= 98 \times 76 + 5 + 43 + 2 + 1. \\
7500 &= 98 \times 76 + 5 \times 4 + 32 \times 1. \\
7501 &= 98 \times 76 + 5 \times 4 + 32 + 1. \\
7502 &= 98 \times 76 + 5 + (4 + 3)^2 \times 1. \\
7503 &= 987 + 6 \times 543 \times 2 \times 1. \\
7504 &= 987 + 6 \times 543 \times 2 + 1. \\
7505 &= (9 + 87 \times 6 + 5) \times (4 + 3) \times 2 + 1. \\
7506 &= 9 + (8 + 7 + 6) \times (5 + 4 \times 3) \times 21. \\
7507 &= 98 \times 76 + 54 + 3 + 2^1. \\
7508 &= 98 \times 76 + 54 + 3 + 2 + 1. \\
7509 &= 9 \times 87 + 6 + 5 \times 4^3 \times 21. \\
7510 &= 98 \times 76 + 5 \times 4 \times 3 + 2 \times 1. \\
7511 &= 98 \times 76 + 54 + 3^2 \times 1. \\
7512 &= 98 \times 76 + 54 + 3^2 + 1. \\
7513 &= 9 + 87 \times 65 + 43^2 \times 1. \\
7514 &= 9 + 87 \times 65 + 43^2 + 1. \\
7515 &= 9 + (876 + 5^4) \times (3 + 2) + 1. \\
7516 &= 9 \times ((8 \times (7 + 6) + (5 + 4)^3) + 2) + 1. \\
7517 &= 98 \times 76 + 5 + 43 + 21. \\
7518 &= 98 \times 7 \times 6 + 54 \times 3 \times 21. \\
7519 &= 98 \times 76 + 5 + 4^3 + 2 \times 1. \\
7520 &= 98 \times 76 + 5 + 4 + 3 \times 21. \\
7521 &= (9 + 8 \times 7 \times (6 + 5)) \times 4 \times 3 + 21. \\
7522 &= -98 \times 7 + 6^5 + 432 \times 1. \\
7523 &= 98 \times 76 + 5 \times (4 \times 3 + 2 + 1). \\
7524 &= (9 + 87) \times 65 + 4 \times 321. \\
7525 &= (9 \times 8 \times 7 + 6 \times 543) \times 2 + 1. \\
7526 &= 98 \times 76 + 54 + 3 + 21. \\
7527 &= 987 + 654 \times (3^2 + 1). \\
7528 &= (98 + 7 \times (6 + 5)) \times 43 + 2 + 1. \\
7529 &= 98 \times 76 + 5 \times 4 \times 3 + 21. \\
7530 &= 98 \times 76 + (5 + 4) \times 3^2 + 1. \\
7531 &= 98 \times 76 + 5 \times 4 + 3 \times 21. \\
7532 &= 987 + 6543 + 2 \times 1. \\
7533 &= 987 + 6543 + 2 + 1. \\
7534 &= 98 \times 76 + 54 + 32 \times 1. \\
7535 &= 98 \times 76 + 54 + 32 + 1. \\
7536 &= (9 \times (8 + (765 + 4^3))) + (2 + 1). \\
7537 &= 9 + 8 + (7 + 6 \times 5^4 + 3) \times 2 \times 1. \\
7538 &= 98 \times 76 + 5 + 4^3 + 21. \\
7539 &= 98 \times 76 + 5 + 43 \times 2 \times 1. \\
7540 &= 98 \times 76 + 5 + 43 \times 2 + 1. \\
7541 &= (9 + 8 \times 7) \times (6 \times 5 + 43 \times 2) + 1. \\
7542 &= 9 + (87 + 6) \times (5 \times 4 \times 3 + 21). \\
7543 &= 9 + (87 + 6) \times (5 + 4) \times 3^2 + 1. \\
7544 &= 98 \times 76 + (5 + 43) \times 2 \times 1. \\
7545 &= 98 \times 76 + (5 + 43) \times 2 + 1. \\
7546 &= 98 \times (7 + 6 + 54 + 3^2 + 1). \\
7547 &= 987 \times 6 + 5 \times (4 + 321). \\
7548 &= 98 \times 76 + 5 \times 4 \times (3 + 2 \times 1). \\
7549 &= 98 \times 76 + 5 + 4 \times (3 + 21). \\
7550 &= (98 \times 7 + 65 + 4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
7551 &= 12^3 \times 4 + 567 + 8 \times 9. \\
7552 &= 1^2 + (3 \times (45 \times 6 + 7) + 8) \times 9. \\
7553 &= 1 \times 23 \times (4 + 5 \times 6 + 7) \times 8 + 9. \\
7554 &= 1 \times 2 \times (34 + 5 + 6 \times 7 \times 89). \\
7555 &= 1 + 2 \times (34 + 5 + 6 \times 7 \times 89). \\
7556 &= 1 - 2 - 3 + (4 + 5 + 6) \times 7 \times 8 \times 9. \\
7557 &= (1 + 2) \times (3 + 4 \times (5 \times 6 + 7) \times (8 + 9)). \\
7558 &= (1 + 2 \times 3) \times 4^5 + 6 \times (7 \times 8 + 9). \\
7559 &= 1 - 2 \times 3 + 4 + 56 \times (7 + 8) \times 9. \\
7560 &= 1^{234} \times 56 \times (7 + 8) \times 9. \\
7561 &= 1 + 2 \times (345 + 67 + 8) \times 9. \\
7562 &= 1 \times 2 + 3 \times (4 \times 56 + 7 \times 8) \times 9. \\
7563 &= 1 + 2 + 3 \times (4 \times 56 + 7 \times 8) \times 9. \\
7564 &= 1^{23} \times 4 + 56 \times (7 + 8) \times 9. \\
7565 &= 12^3 \times 4 + 5 \times 6 + 7 \times 89. \\
7566 &= 1 + 2 + 3 + (4 + 5 + 6) \times 7 \times 8 \times 9. \\
7567 &= 12^3 \times 4 + 5 \times (6 \times 7 + 89). \\
7568 &= 12^3 \times 4 + 567 + 89. \\
7569 &= 1 \times 2 + 3 + 4 + 56 \times (7 + 8) \times 9. \\
7570 &= 1 + 2 + 3 + 4 + 56 \times (7 + 8) \times 9. \\
7571 &= 1 + 2 \times 3 + 4 + 56 \times (7 + 8) \times 9. \\
7572 &= 12 + 3 \times (4 \times 56 + 7 \times 8) \times 9. \\
7573 &= 1^2 + 3 \times 4 + 56 \times (7 + 8) \times 9. \\
7574 &= 1 \times 2 + 3 \times 4 + 56 \times (7 + 8) \times 9. \\
7575 &= 1 + 2 + 3 \times 4 + 56 \times (7 + 8) \times 9. \\
7576 &= 12^3 + 4^5 + 67 \times 8 \times 9. \\
7577 &= 12 \times (34 + 56) \times 7 + 8 + 9. \\
7578 &= 1 + (2 + 34) \times 5 \times 6 \times 7 + 8 + 9. \\
7579 &= 12 + 3 + 4 + 56 \times (7 + 8) \times 9. \\
7580 &= 1 \times (2 + 3) \times 4 + 56 \times (7 + 8) \times 9. \\
7581 &= (1 + 2) \times (34 \times 56 + 7 \times 89). \\
7582 &= (1 + (2 \times 34 + 5) \times 6 + 7) \times (8 + 9). \\
7583 &= 12 \times 3 \times 45 + 67 \times 89. \\
7584 &= 12 + 3 \times 4 + 56 \times (7 + 8) \times 9. \\
7585 &= 1 + 2 \times 3 \times 4 + 56 \times (7 + 8) \times 9. \\
7586 &= 1 \times 2 \times ((3^4 + 56 \times 7) \times 8 + 9). \\
7587 &= 1 \times 23 + 4 + 56 \times (7 + 8) \times 9. \\
7588 &= 1 + 23 + 4 + 56 \times (7 + 8) \times 9. \\
7589 &= 1 \times 2 + (3 + (4 + 5 + 6) \times 7 \times 8) \times 9. \\
7590 &= (12 + 34) \times (5 \times 6 + (7 + 8) \times 9). \\
7591 &= 12^3 \times 4 + 56 + 7 \times 89. \\
7592 &= 12^3 \times 4 + 5 + (67 + 8) \times 9. \\
7593 &= 1 + 2^3 \times 4 + 56 \times (7 + 8) \times 9. \\
7594 &= 1^2 \times 34 + 56 \times (7 + 8) \times 9. \\
7595 &= 1^2 + 34 + 56 \times (7 + 8) \times 9. \\
7596 &= 1 \times 2 + 34 + 56 \times (7 + 8) \times 9. \\
7597 &= 1 + 2 + 34 + 56 \times (7 + 8) \times 9. \\
7598 &= -1 + 2 \times 3^4 \times 5 + 6789. \\
7599 &= 1 \times 2 \times 3^4 \times 5 + 6789. \\
7600 &= 1 + 2 \times 3^4 \times 5 + 6789. \\
7601 &= 1 \times (2 \times 34 + 5) \times (6 + 7) \times 8 + 9. \\
7602 &= 1 + (2 \times 34 + 5) \times (6 + 7) \times 8 + 9. \\
7603 &= 1 + 2 \times 3 + (4 + 56 \times (7 + 8)) \times 9. \\
7604 &= 12^3 \times 4 + 5 + 678 + 9. \\
7605 &= 1 \times (2 + 3 + 4) \times (56 + 789). \\
7606 &= 12 + 34 + 56 \times (7 + 8) \times 9. \\
7607 &= 12^3 \times 4 + 5 \times (67 + 8 \times 9). \\
7608 &= 1^2 \times 3 \times 4 \times (5 + 6 + 7 \times 89). \\
7609 &= 1^2 + 3 \times 4 \times (5 + 6 + 7 \times 89). \\
7610 &= 1 \times 2 + 3 \times 4 \times (5 + 6 + 7 \times 89). \\
7611 &= 1 + 2 + 3 \times 4 \times (5 + 6 + 7 \times 89). \\
7612 &= (1 + 2 \times 3 + 4) \times (5 + 678 + 9). \\
7613 &= -1 + 2 \times 3456 + 78 \times 9. \\
7614 &= 1 \times 2 \times 3456 + 78 \times 9. \\
7615 &= 1 + 2 \times 3456 + 78 \times 9. \\
7616 &= (123 + 4) \times 56 + 7 \times 8 \times 9. \\
7617 &= 1^2 + (34 + 5 \times 6) \times 7 \times (8 + 9). \\
7618 &= 1 \times 2 + (34 + 5 \times 6) \times 7 \times (8 + 9). \\
7619 &= 1 + 2 + (34 + 5 \times 6) \times 7 \times (8 + 9). \\
7620 &= 12 + 3 \times 4 \times (5 + 6 + 7 \times 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7551 &= 987 + 6543 + 21. \\
7552 &= (9 + 8 \times (7 + 6) + 5) \times (43 + 21). \\
7553 &= 98 \times 7 + (6 \times 54 + 3) \times 21. \\
7554 &= (9 + 8 + 7 + 6 \times 5^4 + 3) \times 2 \times 1. \\
7555 &= 98 \times 7 \times (6 + 5) + 4 + 3 + 2 \times 1. \\
7556 &= 98 \times 7 \times (6 + 5) + 4 + 3 + 2 + 1. \\
7557 &= 98 \times 7 \times (6 + 5) + 4 + 3 \times 2 + 1. \\
7558 &= 9 \times 8 \times 7 \times (6 + 5 + 4) - 3 + 2 - 1. \\
7559 &= 98 \times 7 \times (6 + 5) + 4 + 3^2 \times 1. \\
7560 &= 98 \times 7 \times (6 + 5) + 4 + 3^2 + 1. \\
7561 &= 98 \times 7 \times (6 + 5) + 4 \times 3 + 2 + 1. \\
7562 &= 98 \times 76 + (54 + 3) \times 2 \times 1. \\
7563 &= 98 \times 76 + (54 + 3) \times 2 + 1. \\
7564 &= (987 + 65 \times 43) \times 2 \times 1. \\
7565 &= 98 \times 76 + 54 + 3 \times 21. \\
7566 &= (98 + 7 \times 6) \times 54 + 3 + 2 + 1. \\
7567 &= (98 + 7 \times 6) \times 54 + 3 \times 2 + 1. \\
7568 &= 98 \times 76 + 5 \times 4 \times 3 \times 2 \times 1. \\
7569 &= 98 \times 76 + 5 \times 4 \times 3 \times 2 + 1. \\
7570 &= 98 \times 7 \times (6 + 5) + 4 \times 3 \times 2 \times 1. \\
7571 &= 98 \times 7 \times (6 + 5) + 4 \times 3 \times 2 + 1. \\
7572 &= 9 + 8 \times 7 + (6 \times 5^4 + 3) \times 2 + 1. \\
7573 &= 98 \times 76 + 5 \times (4 \times 3 \times 2 + 1). \\
7574 &= 98 \times 7 \times (6 + 5) + 4 + 3 + 21. \\
7575 &= (9 \times (8 + 76) \times 5 + 4 + 3) \times 2 + 1. \\
7576 &= 9 + (8 + 7 + 6 \times (5^4 + 3)) \times 2 + 1. \\
7577 &= 9 + 8 + 7 \times 6 \times 5 \times 4 \times 3^2 \times 1. \\
7578 &= 9 + 8 + 7 \times 6 \times 5 \times 4 \times 3^2 + 1. \\
7579 &= 98 \times 7 \times (6 + 5) + 4 \times 3 + 21. \\
7580 &= 9 \times (87 \times 6 + 5 \times 4^3) + 2 \times 1. \\
7581 &= 98 \times 76 + 5 + 4^3 \times 2 \times 1. \\
7582 &= 98 \times 76 + 5 + 4 \times 32 + 1. \\
7583 &= 98 \times 7 \times (6 + 5) + 4 + 32 + 1. \\
7584 &= 9 + 8 + 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
7585 &= 98 \times 76 + 5 + 4 \times (32 + 1). \\
7586 &= 98 \times 76 + (5 + 4^3) \times 2 \times 1. \\
7587 &= 9 \times 87 \times 6 + (5 + 4) \times 321. \\
7588 &= 98 \times 76 + 5 \times (4 + 3 + 21). \\
7589 &= 9 \times (8 + 76 \times 5) + 4^{(3 \times 2)} + 1. \\
7590 &= (98 + 7 + 654) \times (3^2 + 1). \\
7591 &= 98 \times 7 \times (6 + 5) + 43 + 2 \times 1. \\
7592 &= 98 \times 7 \times (6 + 5) + 43 + 2 + 1. \\
7593 &= (98 + 7 \times 6) \times 54 + 32 + 1. \\
7594 &= -9 - 87 + 6^5 - 43 \times 2 \times 1. \\
7595 &= 98 \times 7 \times (6 + 5) + (4 + 3)^2 \times 1. \\
7596 &= 9 \times (8 \times 76 + 5 \times 43 + 21). \\
7597 &= 98 \times 76 + 5 + (4 \times 3)^2 \times 1. \\
7598 &= 98 \times 76 + 5 + (4 \times 3)^2 + 1. \\
7599 &= (9 + 8) \times (76 \times 5 + 4 + 3 \times 21). \\
7600 &= 98 \times 76 + 5 + (4 + 3) \times 21. \\
7601 &= 9 + 8 \times 7 + 6 \times (5^4 + 3) \times 2 \times 1. \\
7602 &= (9 + 8 \times 7 \times 6 + 5 + 4 \times 3) \times 21. \\
7603 &= 9 + 87 + (6 \times 5^4 + 3) \times 2 + 1. \\
7604 &= -9 - 8 + 7654 - 32 - 1. \\
7605 &= 9 + 876 + 5 \times 4^3 \times 21. \\
7606 &= 9 \times (8 \times 7 \times (6 + 5 + 4) + 3 + 2) + 1. \\
7607 &= 9 + 8 \times 7 + 6 \times ((5^4 + 3) \times 2 + 1). \\
7608 &= (9 + 8 + 7) \times (65 + 4 \times 3 \times 21). \\
7609 &= 9 + 8 \times (7 \times 6 + 5 + 43 \times 21). \\
7610 &= (9 \times (8 + 76) + 5) \times (4 + 3 + 2 + 1). \\
7611 &= 9 \times (8 + 7) \times 6 \times (5 + 4) + 321. \\
7612 &= 98 \times 76 + 54 \times 3 + 2 \times 1. \\
7613 &= 98 \times 76 + 54 \times 3 + 2 + 1. \\
7614 &= 9 \times (87 \times 6 + 54 \times 3 \times 2 \times 1). \\
7615 &= 9 \times 8 + 7 + 6 \times (5^4 + 3) \times 2 \times 1. \\
7616 &= 9 \times 8 + 7 + 6 \times (5^4 + 3) \times 2 + 1. \\
7617 &= 9 + 8 + 76 \times 5 \times 4 \times (3 + 2 \times 1). \\
7618 &= 9 + 8 + 76 \times 5 \times 4 \times (3 + 2) + 1. \\
7619 &= (9 \times 8 + 7 \times 6 + 5) \times 4^3 + 2 + 1. \\
7620 &= (9 \times (8 + 7) + 6) \times 54 + 3 + 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7621 &= 12^3 \times 4 - 5 + 6 \times 7 \times (8 + 9). \\
7622 &= -1^2 + (3 + 4 + 56 \times (7 + 8)) \times 9. \\
7623 &= 12^3 + 45 \times (6 \times 7 + 89). \\
7624 &= (1 + (2 \times 3)^4) \times 5 + 67 \times (8 + 9). \\
7625 &= 12^3 \times 4 + 5 + 6 + 78 \times 9. \\
7626 &= 1 + 2 \times 34 \times (56 + 7 \times 8) + 9. \\
7627 &= 12^3 \times 4 + (5 + 6) \times (7 \times 8 + 9). \\
7628 &= 1 \times 2 \times 34 + 56 \times (7 + 8) \times 9. \\
7629 &= (12 + 3) \times 456 + 789. \\
7630 &= (1 \times 2 + 3 + 4 + 5) \times (67 \times 8 + 9). \\
7631 &= 12^3 \times 4 + 5 + 6 \times 7 \times (8 + 9). \\
7632 &= 1^2 \times (34 \times 5 + 678) \times 9. \\
7633 &= 1 + (2 + 34) \times 5 \times 6 \times 7 + 8 \times 9. \\
7634 &= 1 + (2 + 3^4 \times 5 + 6 \times 7) \times (8 + 9). \\
7635 &= 1^2 \times 3 + (4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7636 &= 12 \times 3^4 + 56 \times 7 \times (8 + 9). \\
7637 &= 1 + 2^{(3 \times 4)} + 5 \times (6 + 78 \times 9). \\
7638 &= 1 + (2 \times 3)^4 \times 5 + (6 + 7) \times 89. \\
7639 &= (1 + (2 + 34) \times 5 \times 6) \times 7 + 8 \times 9. \\
7640 &= 1 \times 2^3 + (4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7641 &= (1 + 2) \times 3 \times (4 + 56 + 789). \\
7642 &= 1234 + (5 + 67) \times 89. \\
7643 &= 1 \times 234 \times 5 \times 6 + 7 \times 89. \\
7644 &= 1 + 234 \times 5 \times 6 + 7 \times 89. \\
7645 &= (1 + 2 \times 3) \times 4^5 + 6 \times 78 + 9. \\
7646 &= 12^3 - 45 + 67 \times 89. \\
7647 &= 12 + 3 + (4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7648 &= 1 \times 2 \times (3^4 + 5 + 6 \times 7 \times 89). \\
7649 &= 12 \times (34 + 56) \times 7 + 89. \\
7650 &= 1 + (2 + 34) \times 5 \times 6 \times 7 + 89. \\
7651 &= 1 + (2 \times 3 + 4 + 5) \times (6 + 7 \times 8 \times 9). \\
7652 &= 1 \times 23 \times 4 + 56 \times (7 + 8) \times 9. \\
7653 &= 12 + 3^4 + 56 \times (7 + 8) \times 9. \\
7654 &= (1 \times 2 \times 34 + 5 + 6 + 7) \times 89. \\
7655 &= 1 \times 23 + (4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7656 &= 1 + 23 + (4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7657 &= 1 + (2^3 \times 4 + 56) \times (78 + 9). \\
7658 &= -1 + 23 \times (-456 + 789). \\
7659 &= (1 + 2 + 34 \times 5 + 678) \times 9. \\
7660 &= ((1 + 2)^3 \times 4 + 5) \times 67 + 89. \\
7661 &= (12 + 34 \times 5) \times 6 \times 7 + 8 + 9. \\
7662 &= 12 + (3 \times 4 + 5) \times (6 \times 7 + 8) \times 9. \\
7663 &= 1 + 2 \times (3 + 4 \times (5 + 6) \times (78 + 9)). \\
7664 &= (1 \times 2 + 3)^4 \times (5 + 6) + 789. \\
7665 &= 12 \times (34 \times 5 + 6 \times 78) + 9. \\
7666 &= 1 \times 2^{(3 \times 4)} + 5 \times 6 \times 7 \times (8 + 9). \\
7667 &= 1 + 2^{(3 \times 4)} + 5 \times 6 \times 7 \times (8 + 9). \\
7668 &= 1^2 \times 3 \times 4 \times (567 + 8 \times 9). \\
7669 &= 1^2 + 3 \times 4 \times (567 + 8 \times 9). \\
7670 &= 12^3 \times 4 + 56 + 78 \times 9. \\
7671 &= (123 + 4^5) \times 6 + 789. \\
7672 &= 1 \times 2^{(3+4)} \times 56 + 7 \times 8 \times 9. \\
7673 &= (1 + 234) \times 5 \times 6 + 7 \times 89. \\
7674 &= (1 + (2 + 34) \times 5) \times 6 \times 7 + 8 \times 9. \\
7675 &= (1 + (2 + 3)^4) \times (5 + 6) + 789. \\
7676 &= -12 - 34 + (5 + 6) \times 78 \times 9. \\
7677 &= 12^3 \times 4 + ((5 + 6) \times 7 + 8) \times 9. \\
7678 &= (1 + 2 \times 3) \times 4^5 + 6 + 7 \times 8 \times 9. \\
7679 &= 123 - 4 + 56 \times (7 + 8) \times 9. \\
7680 &= 12 + 3 \times 4 \times (567 + 8 \times 9). \\
7681 &= 1 + 2^3 \times (456 + 7 \times 8 \times 9). \\
7682 &= 1^2 + (3^4 + 56) \times 7 \times 8 + 9. \\
7683 &= 123 + (4 + 5 + 6) \times 7 \times 8 \times 9. \\
7684 &= 1 + 2 + (3^4 + 56) \times 7 \times 8 + 9. \\
7685 &= 1^2 + 34 \times (5 + (6 + 7) \times (8 + 9)). \\
7686 &= 1 \times 2 \times 3^4 \times (5 + 6 \times 7) + 8 \times 9. \\
7687 &= 123 + 4 + 56 \times (7 + 8) \times 9. \\
7688 &= 1 \times 2^{(3+4)} + 56 \times (7 + 8) \times 9. \\
7689 &= (12 + 3) \times (456 + 7 \times 8) + 9. \\
7690 &= (1 + 2 \times 3) \times 4^5 + 6 \times (78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7621 &= (9 \times (8 + 7) + 6) \times 54 + 3 \times 2 + 1. \\
7622 &= ((98 + 7) \times 6 + 5) \times 4 \times 3 + 2 \times 1. \\
7623 &= (9 \times 8 + 76 + 5 \times 43) \times 21. \\
7624 &= (9 \times (8 + 7) + 6) \times 54 + 3^2 + 1. \\
7625 &= 9 + 8 \times 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
7626 &= 9 \times (8 \times 7 + 65) \times (4 + 3) + 2 + 1. \\
7627 &= 9 + (8 \times 7 + 6 \times 5^4 + 3) \times 2 \times 1. \\
7628 &= 98 \times 76 + 5 \times 4 \times 3^2 \times 1. \\
7629 &= 98 \times 76 + 5 \times 4 \times 3^2 + 1. \\
7630 &= -9 - 8 + 7654 - 3 \times 2 - 1. \\
7631 &= 98 \times 76 + 54 \times 3 + 21. \\
7632 &= 9 \times 8 \times 76 + 5 \times 432 \times 1. \\
7633 &= 9 \times 8 \times 76 + 5 \times 432 + 1. \\
7634 &= 9 + 8 + 7 \times (6 \times 5 + 4) \times 32 + 1. \\
7635 &= 9 + (87 + 6) \times ((5 + 4) \times 3^2 + 1). \\
7636 &= (9 + 8 \times 7 + 6 \times 5^4 + 3) \times 2 \times 1. \\
7637 &= (9 \times 8 + 7 \times 6 + 5) \times 4^3 + 21. \\
7638 &= 9 \times (8 + 7 \times 6 \times 5 \times 4) + 3 + 2 + 1. \\
7639 &= 9 \times 8 + 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
7640 &= 9 + 8 + 7 \times (65 + 4(3 + 2 \times 1)). \\
7641 &= 98 + 7 + 6 \times (5^4 + 3) \times 2 \times 1. \\
7642 &= 98 + 7 + 6 \times (5^4 + 3) \times 2 + 1. \\
7643 &= -9 - 8 + 7654 + 3 + 2 + 1. \\
7644 &= 9 \times (8 \times 7 + 65) \times (4 + 3) + 21. \\
7645 &= 98 \times 76 + 5 + 4^3 \times (2 + 1). \\
7646 &= (9 \times (8 + 76) \times 5 + 43) \times 2 \times 1. \\
7647 &= (9 \times (8 + 7) + 6) \times 54 + 32 + 1. \\
7648 &= 98 \times 76 + 5 \times 4 \times (3^2 + 1). \\
7649 &= 9 + (8 + 76 \times 5 \times 4) \times (3 + 2) \times 1. \\
7650 &= 987 \times 6 + 54 \times 32 \times 1. \\
7651 &= 987 \times 6 + 54 \times 32 + 1. \\
7652 &= 9 \times (8 + 7 \times 6) \times (5 + 4 \times 3) + 2 \times 1. \\
7653 &= 9 + (8 + 76) \times (5 + 43 \times 2 \times 1). \\
7654 &= 98 \times (7 + 6) \times 5 + 4 \times 321. \\
7655 &= (9 + 8 + 7 + 65) \times 43 \times 2 + 1. \\
7656 &= 9 + 87 + 6 \times 5 \times 4 \times 3 \times 21. \\
7657 &= (98 + 7 + 6 + 5) \times (4^3 + 2) + 1. \\
7658 &= 98 + 7 \times 6 \times 5 \times 4 \times 3^2 \times 1. \\
7659 &= 98 + 7 \times 6 \times 5 \times 4 \times 3^2 + 1. \\
7660 &= (9 \times (8 + 7) + 6 + 5^4) \times (3^2 + 1). \\
7661 &= 9 + 8 + 7 \times (6 + 543 \times 2 \times 1). \\
7662 &= 9 + 8 + 7 \times (6 + 543 \times 2) + 1. \\
7663 &= 9 + (8 + 76 + 5) \times 43 \times 2 \times 1. \\
7664 &= 9 + (8 + 76 + 5) \times 43 \times 2 + 1. \\
7665 &= 98 + 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
7666 &= 98 \times 76 + 5 \times 43 + 2 + 1. \\
7667 &= (9 + 8) \times (76 + 54 + 321). \\
7668 &= (9 \times 87 + 65 + 4) \times 3^2 \times 1. \\
7669 &= (9 \times 87 + 65 + 4) \times 3^2 + 1. \\
7670 &= -9 - 8 + 7654 + 32 + 1. \\
7671 &= 9 \times (8 + 7 \times 6) \times (5 + 4 \times 3) + 21. \\
7672 &= 9 \times 8 + 76 \times 5 \times 4 \times (3 + 2 \times 1). \\
7673 &= 98 \times 76 + 5 \times (43 + 2 \times 1). \\
7674 &= 98 \times 76 + 5 \times (43 + 2) + 1. \\
7675 &= 98 \times 7 \times (6 + 5) + 43 \times (2 + 1). \\
7676 &= 9 + 8 + 7654 + 3 + 2 + 1. \\
7677 &= 9 + 8 + 7654 + 3 + 2 + 1. \\
7678 &= 9 + 8 + 7654 + 3 \times 2 + 1. \\
7679 &= (9 + 8) \times 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
7680 &= 9 + 8 + 7654 + 3^2 \times 1. \\
7681 &= 9 + 8 + 7654 + 3^2 + 1. \\
7682 &= 9 \times 8 \times (76 + 5) + 43^2 + 1. \\
7683 &= (9 \times 8 \times 7 + 6) \times 5 + 4 \times 3 + 21. \\
7684 &= 98 \times 76 + 5 \times 43 + 21. \\
7685 &= (9 + 8 + 76 \times 5 \times 4) \times (3 + 2 \times 1). \\
7686 &= 9 \times 8 \times 7 + 6 \times (54 + 3) \times 21. \\
7687 &= 9 \times (8 + (76 \times 5 + 43) \times 2) + 1. \\
7688 &= 9 \times 8 + 7 \times (6 \times 5 + 4) \times 32 \times 1. \\
7689 &= 9 \times 8 + 7 \times (6 \times 5 + 4) \times 32 + 1. \\
7690 &= 9 + (87 + 6 \times 5^4 + 3) \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7691 &= ((1 + 23) \times 45 + 6) \times 7 + 89. \\
7692 &= 12^3 \times 4 + 5 \times (67 + 89). \\
7693 &= 12 + (3^4 + 56) \times 7 \times 8 + 9. \\
7694 &= 1 \times 2^3 \times 4^5 + 6 - 7 \times 8 \times 9. \\
7695 &= (1 + 2 \times 3 + 4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7696 &= 1^2 + 3^4 \times (5 \times 6 + 7 \times 8 + 9). \\
7697 &= 1 \times 2 + 3^4 \times (5 \times 6 + 7 \times 8 + 9). \\
7698 &= 123 \times (4 \times 5 + 6 \times 7) + 8 \times 9. \\
7699 &= 1 - 2 \times 3 \times 4 + (5 + 6) \times 78 \times 9. \\
7700 &= 12^3 + 4 + 5 + 67 \times 89. \\
7701 &= 1 \times 2 \times 3456 + 789. \\
7702 &= 1 + 2 \times 3456 + 789. \\
7703 &= 1 \times 2 \times 3^4 \times (5 + 6 \times 7) + 89. \\
7704 &= (1^2 + 3^4) \times 5 \times 6 + 7 + 8 + 9. \\
7705 &= 1 \times 23 \times (45 \times 6 + 7 \times 8 + 9). \\
7706 &= 1 + 23 \times (45 \times 6 + 7 \times 8 + 9). \\
7707 &= 12 + 3^4 \times (5 \times 6 + 7 \times 8 + 9). \\
7708 &= (1^2 + 3^4) \times ((5 + 6) \times 7 + 8 + 9). \\
7709 &= (1 + 2 \times 3) \times (4^5 + 67) + 8 \times 9. \\
7710 &= (12 + 3) \times (4 + 5 \times (6 + 7 + 89)). \\
7711 &= 12^3 + 4 \times 5 + 67 \times 89. \\
7712 &= 12^3 \times 4 + 5 + 6 + 789. \\
7713 &= 12^3 \times 4 + (5 + 6 + 78) \times 9. \\
7714 &= (1 + 2 \times 3) \times (4^5 + 6) + 7 \times 8 \times 9. \\
7715 &= 123 \times (4 \times 5 + 6 \times 7) + 89. \\
7716 &= (12 + 34 \times 5) \times 6 \times 7 + 8 \times 9. \\
7717 &= -12 + 3 + 4 + (5 + 6) \times 78 \times 9. \\
7718 &= 1^2 \times 34 \times (5 \times 6 \times 7 + 8 + 9). \\
7719 &= 123 + (4 + 56 \times (7 + 8)) \times 9. \\
7720 &= 1 \times 2 + 34 \times (5 \times 6 \times 7 + 8 + 9). \\
7721 &= 1 + 2 + 34 \times (5 \times 6 \times 7 + 8 + 9). \\
7722 &= 12 \times 3 \times 45 + 678 \times 9. \\
7723 &= 1 + 234 \times 5 \times 6 + 78 \times 9. \\
7724 &= 1 + 2 + 3 - 4 + (5 + 6) \times 78 \times 9. \\
7725 &= (1 + 2 + 3 \times 4) \times (5 + 6 + 7 \times 8 \times 9). \\
7726 &= 1^{23} \times 4 + (5 + 6) \times 78 \times 9. \\
7727 &= 1^{23} + 4 + (5 + 6) \times 78 \times 9. \\
7728 &= (1 + 234 \times 5) \times 6 + 78 \times 9. \\
7729 &= 1^2 \times 3 + 4 + (5 + 6) \times 78 \times 9. \\
7730 &= 12 + 34 \times (5 \times 6 \times 7 + 8 + 9). \\
7731 &= 12^3 \times 4 + 5 \times 6 + 789. \\
7732 &= 1 \times 2 \times 3 + 4 + (5 + 6) \times 78 \times 9. \\
7733 &= (12 + 34 \times 5) \times 6 \times 7 + 89. \\
7734 &= 1^2 \times 3 \times 4 + (5 + 6) \times 78 \times 9. \\
7735 &= (123 + 4) \times 56 + 7 \times 89. \\
7736 &= 12^3 + 45 + 67 \times 89. \\
7737 &= (123 + 4 + 5 + 6) \times 7 \times 8 + 9. \\
7738 &= 1^2 + (3 + 4 \times 5) \times 6 \times 7 \times 8 + 9. \\
7739 &= 1 \times 2 + (3 + 4 \times 5) \times 6 \times 7 \times 8 + 9. \\
7740 &= (12 + 34 \times 5 + 678) \times 9. \\
7741 &= 12 + 3 + 4 + (5 + 6) \times 78 \times 9. \\
7742 &= 1 \times (2 + 3) \times 4 + (5 + 6) \times 78 \times 9. \\
7743 &= 1^{23} \times (45 + 6 \times 7) \times 89. \\
7744 &= 1^{23} + (4 \times 5 + 67) \times 89. \\
7745 &= 12 \times (3^4 + 5 + 6) \times 7 + 8 + 9. \\
7746 &= 12 + 3 \times 4 + (5 + 6) \times 78 \times 9. \\
7747 &= 1 + 2 \times 3 \times 4 + (5 + 6) \times 78 \times 9. \\
7748 &= 1 \times 2 + 3 + (45 + 6 \times 7) \times 89. \\
7749 &= 12 + (3 + 4 \times 5) \times 6 \times 7 \times 8 + 9. \\
7750 &= 1 + 23 + 4 + (5 + 6) \times 78 \times 9. \\
7751 &= 1 \times 2^3 + (45 + 6 \times 7) \times 89. \\
7752 &= 12 \times (3 + 4 + 567 + 8 \times 9). \\
7753 &= (1 + 2^3 \times 4 \times 5 \times 6 \times 7) \times 8 + 9. \\
7754 &= 1 \times 2^3 \times 4 + (5 + 6) \times 78 \times 9. \\
7755 &= 123 + (4 \times 5 \times 6 \times 7 + 8) \times 9. \\
7756 &= 1^2 \times 34 + (5 + 6) \times 78 \times 9. \\
7757 &= 12^3 \times 4 + 56 + 789. \\
7758 &= 12 + 3 + (45 + 6 \times 7) \times 89. \\
7759 &= 1 + 2 + 34 + (5 + 6) \times 78 \times 9. \\
7760 &= (12 \times 3 + 4) \times (5 + (6 + 7 + 8) \times 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7691 &= 98 \times 7 \times (6 + 5) + (4 \times 3)^2 + 1. \\
7692 &= 9 - 8 \times 7 + 6^5 - 4 - 32 - 1. \\
7693 &= 98 \times 76 + 5 \times (4 + 3)^2 \times 1. \\
7694 &= 98 \times (7 + 6) + 5 \times 4 \times 321. \\
7695 &= 9 + 8 + 7654 + 3 + 21. \\
7696 &= (9 \times 8 + 76) \times (5 \times 4 + 32 \times 1). \\
7697 &= (9 \times 8 + 76) \times (5 \times 4 + 32) + 1. \\
7698 &= (9 + 87 + 6 \times 5^4 + 3) \times 2 \times 1. \\
7699 &= (98 + 76 + 5) \times 43 + 2 \times 1. \\
7700 &= 98 \times 76 + (5 + 4 + 3) \times 21. \\
7701 &= (98 \times 7 + 6 + 5^4 \times 3) \times (2 + 1). \\
7702 &= 9 \times 8 + 7 \times (65 + 4^3 + 2) + 1. \\
7703 &= 9 + 8 + 7654 + 32 \times 1. \\
7704 &= 9 + 8 + 7654 + 32 + 1. \\
7705 &= 98 \times 76 + 5 + 4 \times 3 \times 21. \\
7706 &= 98 \times 7 + 65 \times 4 \times 3^{(2+1)}. \\
7707 &= 9 + 8 + (765 + 4) \times (3^2 + 1). \\
7708 &= 9 \times 8 + 7654 + 3 - 21. \\
7709 &= 9 - 8 \times 7 + 6^5 + 4 - 3 - 21. \\
7710 &= (9 + 8 + 7 + 6) \times (5 + 4 \times 3 \times 21). \\
7711 &= 9 + (8 + 7 \times (6 + 543)) \times 2 \times 1. \\
7712 &= (9 + 8) \times 76 + 5 \times 4 \times 321. \\
7713 &= 987 + 6 + 5 \times 4^3 \times 21. \\
7714 &= 98 \times (7 + 6) \times 5 + 4^3 \times 21. \\
7715 &= 98 + 7 \times (6 \times 5 + 4) \times 32 + 1. \\
7716 &= 9 \times 8 + 7 \times (6 + 543 \times 2 \times 1). \\
7717 &= 98 \times 7 \times 6 + (5 \times 4 \times 3)^2 + 1. \\
7718 &= (98 + 76 + 5) \times 43 + 21. \\
7719 &= 98 \times 76 + 54 \times (3 + 2) + 1. \\
7720 &= (9 + 8 + 7 \times (6 + 543)) \times 2 \times 1. \\
7721 &= 98 + 7 \times (6 + (5 + 4) \times 3)^2 \times 1. \\
7722 &= 9 \times (8 + 765 + 4^3 + 21). \\
7723 &= 9 \times 8 + 765 \times (4 + 3 \times 2) + 1. \\
7724 &= 9 + 8 + (7 + 6 \times 5 \times 4 \times 3) \times 21. \\
7725 &= (9 \times 8 \times 7 + 6 + 5) \times (4 \times 3 + 2 + 1). \\
7726 &= 9 \times 8 + 7654 - 3 + 2 + 1. \\
7727 &= 9 \times 8 + 7654 + 3 - 2 \times 1. \\
7728 &= (98 + 7) \times 65 + 43 \times 21. \\
7729 &= (9 + 87 + 6 \times (5^4 + 3)) \times 2 + 1. \\
7730 &= (9 \times 8 + 76 + 5^4) \times (3^2 + 1). \\
7731 &= 9 \times 8 + 7654 + 3 + 2 \times 1. \\
7732 &= 9 \times 8 + 7654 + 3 + 2 + 1. \\
7733 &= 9 \times 8 + 7654 + 3 \times 2 + 1. \\
7734 &= 9 + 8 + 7654 + 3 \times 21. \\
7735 &= 9 \times 8 + 7654 + 3^2 \times 1. \\
7736 &= 9 \times 8 + 7654 + 3^2 + 1. \\
7737 &= 987 + (6 + 5 + 4)^3 \times 2 \times 1. \\
7738 &= 987 + (6 + 5 + 4)^3 \times 2 + 1. \\
7739 &= 9 + 8 \times 7 \times 6 \times (5 \times 4 + 3) + 2 \times 1. \\
7740 &= 9 \times (8 + 765 + 43 \times 2 + 1). \\
7741 &= (9 \times 8 + 7 + 6 + 5) \times 43 \times 2 + 1. \\
7742 &= 98 + 7 \times (6 + 543 \times 2 \times 1). \\
7743 &= 98 + 7 \times (6 + 543 \times 2) + 1. \\
7744 &= (9 + 8) \times 76 \times 5 + 4 \times 321. \\
7745 &= 98 \times (7 + 65 + 4 + 3) + 2 + 1. \\
7746 &= (9 + 8) \times 7 \times 65 + 4 + 3 \times 2 + 1. \\
7747 &= (98 + 7 + 6 \times (5^4 + 3)) \times 2 + 1. \\
7748 &= 98 + 765 \times (4 + 3 + 2 + 1). \\
7749 &= (9 + 8) \times 7 \times 65 + 4 + 3^2 + 1. \\
7750 &= 9 \times 8 + 7654 + 3 + 21. \\
7751 &= ((9 + 8) \times 7 + 6) \times (5 \times 4 \times 3 + 2) + 1. \\
7752 &= 9 + 87 \times (65 + 4 \times 3 \times 2 \times 1). \\
7753 &= 9 + 87 \times (65 + 4 \times 3 \times 2) + 1. \\
7754 &= 9 + (8 + 7 + 6 \times 5 + 43)^2 + 1. \\
7755 &= 9 + (8 \times 7 + 65) \times 4^3 + 2 \times 1. \\
7756 &= 9 + (8 \times 7 + 65) \times 4^3 + 2 + 1. \\
7757 &= 98 + 7654 + 3 + 2 \times 1. \\
7758 &= 98 + 7654 + 3 + 2 + 1. \\
7759 &= 9 \times 8 + 7654 + 32 + 1. \\
7760 &= (9 + 8) \times 7 \times 65 + 4 \times 3 \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7761 &= 12^3 \times 4 + 56 \times (7 + 8) + 9. \\
7762 &= 12 \times 3 + 4 + (5 + 6) \times 78 \times 9. \\
7763 &= 1 \times 2 + 3 + (4 + (5 + 6) \times 78) \times 9. \\
7764 &= 12 \times (34 \times 5 + 6 \times 78 + 9). \\
7765 &= 1 + 2 \times 3 + (4 + (5 + 6) \times 78) \times 9. \\
7766 &= 12 \times 3^4 + 5 + 6789. \\
7767 &= 1 + 23 + (45 + 6 \times 7) \times 89. \\
7768 &= 12 + 34 + (5 + 6) \times 78 \times 9. \\
7769 &= (1 + 2 \times 3 \times (4 + 5 + 67)) \times (8 + 9). \\
7770 &= (1 + 2)^3 + (4 \times 5 + 67) \times 89. \\
7771 &= (12 + 3 + 4) \times (56 \times 7 + 8 + 9). \\
7772 &= (1 - 2 + 3 + 4)^5 + 6 + 7 - 8 - 9. \\
7773 &= 12 + 3 + (4 + (5 + 6) \times 78) \times 9. \\
7774 &= 1 \times 23 \times (4 + 5 \times 67 + 8 - 9). \\
7775 &= -1 + 2 \times 3^4 \times (5 + 6 \times 7 - 8 + 9). \\
7776 &= 12 \times 3 \times (4 + 5 \times 6 \times 7) + 8 \times 9. \\
7777 &= 1 + 2^3 \times (45 \times 6 + 78 \times 9). \\
7778 &= 1 \times 2 + (3 + (4 + 5 + 6) \times 7) \times 8 \times 9. \\
7779 &= 12 \times 3 + (45 + 6 \times 7) \times 89. \\
7780 &= 1 + (2 + (3^4 + 5) \times 6) \times (7 + 8) + 9. \\
7781 &= 12^3 \times 4 + (5 + 6) \times (7 + 8 \times 9). \\
7782 &= (12 + 3) \times 4 + (5 + 6) \times 78 \times 9. \\
7783 &= 1 + 2 \times (3 + 4 \times (5 \times 6 + 78) \times 9). \\
7784 &= (12 \times 3 + 4 \times 5) \times (67 + 8 \times 9). \\
7785 &= 12 \times (34 + 5 + 6 \times 7) \times 8 + 9. \\
7786 &= (1 + (2 + 3^4) \times 5 + 6 \times 7) \times (8 + 9). \\
7787 &= (1 + 2 + 34) \times 5 \times 6 \times 7 + 8 + 9. \\
7788 &= (123 + 4 + 5) \times (6 \times 7 + 8 + 9). \\
7789 &= -1 - 23 + 4^5 + 6789. \\
7790 &= 1 \times 2 \times 34 + (5 + 6) \times 78 \times 9. \\
7791 &= 1 + 2 \times 34 + (5 + 6) \times 78 \times 9. \\
7792 &= 1 + 2^{(3+4)} \times 56 + 7 \times 89. \\
7793 &= 12 \times 3 \times (4 + 5 \times 6 \times 7) + 89. \\
7794 &= 1 \times 234 + 56 \times (7 + 8) \times 9. \\
7795 &= 1 + 234 + 56 \times (7 + 8) \times 9. \\
7796 &= 1 \times 2 + (3 \times 45 \times 6 + 7 \times 8) \times 9. \\
7797 &= (1 + 2 \times 3) \times 4^5 + 6 + 7 \times 89. \\
7798 &= -12 - 3 + 4^5 + 6789. \\
7799 &= (1^2 + 3)^4 \times 5 \times 6 + 7 \times (8 + 9). \\
7800 &= 12 \times (3^4 + 5 + 6) \times 7 + 8 \times 9. \\
7801 &= 1^{23} + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7802 &= (1 \times 2 + 3^4) \times ((5 + 6) \times 7 + 8 + 9). \\
7803 &= 1^2 \times 3 + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7804 &= 1^2 + 3 + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7805 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7806 &= 1^2 \times 3 \times 4^5 + 6 \times 789. \\
7807 &= 1^2 + 3 \times 4^5 + 6 \times 789. \\
7808 &= 1 \times 2 + 3 \times 4^5 + 6 \times 789. \\
7809 &= 1 \times 234 \times 5 \times 6 + 789. \\
7810 &= 1 + 234 \times 5 \times 6 + 789. \\
7811 &= 1^2 - 3 + 4^5 + 6789. \\
7812 &= 12 \times (3 \times 4 + 567 + 8 \times 9). \\
7813 &= 1^{23} \times 4^5 + 6789. \\
7814 &= 1^{23} + 4^5 + 6789. \\
7815 &= (1 + 234 \times 5) \times 6 + 789. \\
7816 &= 1^2 \times 3 + 4^5 + 6789. \\
7817 &= 1^2 + 3 + 4^5 + 6789. \\
7818 &= 12 + 3 \times 4^5 + 6 \times 789. \\
7819 &= 1 + 2 + 3 + 4^5 + 6789. \\
7820 &= 1 + 2 \times 3 + 4^5 + 6789. \\
7821 &= 1 \times 2^3 + 4^5 + 6789. \\
7822 &= 1 + 2^3 + 4^5 + 6789. \\
7823 &= 1 \times 23 + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7824 &= 1 \times 23 \times 45 + 6789. \\
7825 &= 1 + 23 \times 45 + 6789. \\
7826 &= 1 \times 2 \times (3^4 \times 56 - 7 \times 89). \\
7827 &= (1 + 2)^3 + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7828 &= 12 + 3 + 4^5 + 6789. \\
7829 &= 1 \times 23 \times 4 \times ((5 + 6) \times 7 + 8) + 9. \\
7830 &= (12 + 3) \times (45 + 6 \times 78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7761 &= 98 + 7654 + 3^2 \times 1. \\
7762 &= 98 + 7654 + 3^2 + 1. \\
7763 &= 98 \times (7 + 65 + 4 + 3) + 21. \\
7764 &= (98 \times (7 + 6) + 5 \times 4) \times (3 + 2 + 1). \\
7765 &= (98 \times (7 + 6) + 5 \times 4) \times 3 \times 2 + 1. \\
7766 &= (9 + 8) \times 7 \times 65 + 4 + 3^{(2+1)}. \\
7767 &= 9 \times (87 \times 6 + 5 \times 4 + 321). \\
7768 &= 98 \times 76 + 5 \times (43 + 21). \\
7769 &= 98 \times (7 + 65 + 4) + 321. \\
7770 &= 98 \times 76 + 5 \times 4^3 + 2 \times 1. \\
7771 &= 98 \times 76 + 5 \times 4^3 + 2 + 1. \\
7772 &= 98 \times 76 + 54 \times 3 \times 2 \times 1. \\
7773 &= 98 \times 76 + 54 \times 3 \times 2 + 1. \\
7774 &= 9 + (8 \times 7 + 65) \times 4^3 + 21. \\
7775 &= (9 + 8) \times 7 \times 65 + 4 \times (3^2 + 1). \\
7776 &= 98 + 7654 + 3 + 21. \\
7777 &= 987 \times 6 + 5 + 43^2 + 1. \\
7778 &= 98 \times 76 + 5 + 4 + 321. \\
7779 &= 98 + 7654 + 3^{(2+1)}. \\
7780 &= (9 + 8) \times 7 \times 65 + 43 + 2 \times 1. \\
7781 &= (9 + 8) \times 7 \times 65 + 43 + 2 + 1. \\
7782 &= (9 + 8 + 7) \times 6 \times 54 + 3 + 2 + 1. \\
7783 &= 98 \times 76 + 5 \times (4 + 3 \times 21). \\
7784 &= 98 + 7654 + 32 \times 1. \\
7785 &= 98 + 7654 + 32 + 1. \\
7786 &= (9 + 8 + 7) \times 6 \times 54 + 3^2 + 1. \\
7787 &= 9 + 8 + 7 \times 6 \times 5 \times (4 + 32 + 1). \\
7788 &= 9 + 8 \times (76 + 5) \times 4 \times 3 + 2 + 1. \\
7789 &= 98 \times 76 + 5 \times 4 + 321. \\
7790 &= 9 - 8 - 7 + 6^5 - 4 + 3 + 21. \\
7791 &= (9 \times 8 + (7 + 6) \times (5 \times 4 + 3)) \times 21. \\
7792 &= 9 \times 876 - 5 - 43 \times 2 - 1. \\
7793 &= 9 + 8 + (7 + 6 + 5) \times 432 + 1. \\
7794 &= 9 + 8 + (7 + 6 + 5) \times 432 + 1. \\
7795 &= (9 + 8 \times (7 \times (65 + 4) + 3)) \times 2 + 1. \\
7796 &= 98 \times 76 + 5 + (4 + 3)^{(2+1)}. \\
7797 &= (9 + 8 \times (7 + 6)) \times (5 + 43 + 21). \\
7798 &= 98 \times 7 \times (6 + 5) + 4 \times 3 \times 21. \\
7799 &= 987 \times 6 + 5^4 \times 3 + 2 \times 1. \\
7800 &= 987 \times 6 + 5^4 \times 3 + 2 + 1. \\
7801 &= (9 + 8) \times 7 \times 65 + 4^3 + 2 \times 1. \\
7802 &= (9 + 8) \times 7 \times 65 + 4 + 3 \times 21. \\
7803 &= (98 + 765 + 4) \times 3^2 \times 1. \\
7804 &= (98 + 765 + 4) \times 3^2 + 1. \\
7805 &= 98 \times 76 + (5 + 4 \times 3) \times 21. \\
7806 &= 9 + 8 \times (76 + 5) \times 4 \times 3 + 21. \\
7807 &= (9 + 8 \times 7) \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
7808 &= (9 + 8 + 7) \times 6 \times 54 + 32 \times 1. \\
7809 &= 9 + 8 + 7 + 6^5 + 4 + 3 + 2 \times 1. \\
7810 &= 9 + 8 + 7 + 6^5 + 4 + 3 + 2 + 1. \\
7811 &= 9 + 8 + 7 + 6^5 + 4 + 3 \times 2 + 1. \\
7812 &= (98 + 7 \times 6 \times 5 + 4^3) \times 21. \\
7813 &= 9 + 8 + 7 + 6^5 + 4 + 3^2 \times 1. \\
7814 &= 9 + 8 + 7 + 6^5 + 4 + 3^2 + 1. \\
7815 &= 98 + 7654 + 3 \times 21. \\
7816 &= 9 + ((8 + 7) \times 65 \times 4 + 3) \times 2 + 1. \\
7817 &= 9 \times 8 + (76 + 5 + 4 + 3)^2 + 1. \\
7818 &= 987 \times 6 + 5^4 \times 3 + 21. \\
7819 &= 9 + 8 \times 7 + 6^5 - 43 + 21. \\
7820 &= (9 + 8) \times 7 \times 65 + 4^3 + 21. \\
7821 &= (9 + 8) \times 7 \times 65 + 43 \times 2 \times 1. \\
7822 &= (9 + 8) \times 7 \times 65 + 43 \times 2 + 1. \\
7823 &= 98 \times 76 + 54 + 321. \\
7824 &= 9 + 8 + 7 + 6^5 + 4 \times 3 \times 2 \times 1. \\
7825 &= 9 + 8 + 7 + 6^5 + 4 \times 3 \times 2 + 1. \\
7826 &= 98 \times 76 + 54 \times (3 \times 2 + 1). \\
7827 &= (9 + 8) \times (7 \times 65 + 4) + 3 + 21. \\
7828 &= 9 + 8 + 7 + 6^5 + 4 + 3 + 21. \\
7829 &= 9 \times 876 - 54 - 3 + 2 \times 1. \\
7830 &= 9 + 87 + 6 \times (5 + 4 \times 321).
\end{aligned}$$

Increasing order

$$\begin{aligned}
7831 &= 1^2 + (34 + 56) \times (78 + 9). \\
7832 &= (1 + 2 \times 3 \times 4 + 56 + 7) \times 89. \\
7833 &= 1 + 2 + (34 + 56) \times (78 + 9). \\
7834 &= (1^2 + 3) \times 4^5 + 6 \times 7 \times 89. \\
7835 &= 1 + 2^{(3+4+5)} + 6 \times 7 \times 89. \\
7836 &= 1 \times 23 + 4^5 + 6789. \\
7837 &= 1 + 23 + 4^5 + 6789. \\
7838 &= 1 \times 2 + 3 \times 4 \times (5 \times 6 + 7 \times 89). \\
7839 &= 12^3 + 4 + 5 + 678 \times 9. \\
7840 &= (1 + 2)^3 + 4^5 + 6789. \\
7841 &= 1 + 2 \times (3 + 4) \times (56 + 7 \times 8 \times 9). \\
7842 &= 12 + (34 + 56) \times (78 + 9). \\
7843 &= (1 + 2 \times 3 + 4) \times (5 + 6 + 78 \times 9). \\
7844 &= 1 + 23 \times (4 \times (56 + 7) + 89). \\
7845 &= (1 \times 2 + 3) \times (4^5 + 67 \times 8 + 9). \\
7846 &= 1 + (2 + 3) \times (4^5 + 67 \times 8 + 9). \\
7847 &= (1 + 2^{(3+4)}) \times 56 + 7 \times 89. \\
7848 &= 12 \times (3^4 + 567) + 8 \times 9. \\
7849 &= 12 \times 3 + 4^5 + 6789. \\
7850 &= 12^3 + 4 \times 5 + 678 \times 9. \\
7851 &= 1 + 2^{(3+4)} + (5 + 6) \times 78 \times 9. \\
7852 &= 1^2 + 3 + 4 \times (5 \times 6 \times 7 + 8) \times 9. \\
7853 &= 12^3 \times 4 + 5 + (6 + 7) \times 8 \times 9. \\
7854 &= (123 + 4 + 5 \times 67) \times (8 + 9). \\
7855 &= (1 + 2 \times 3) \times 4^5 + 678 + 9. \\
7856 &= 1 \times 2^3 + 4 \times (5 \times 6 \times 7 + 8) \times 9. \\
7857 &= 1 \times (2 + 3) \times 4 \times 56 \times 7 + 8 + 9. \\
7858 &= 1 + (2 + 3) \times 4 \times 56 \times 7 + 8 + 9. \\
7859 &= (1 + 2 + 34) \times 5 \times 6 \times 7 + 89. \\
7860 &= 1 + (2 + 3)^4 \times 5 + 6 \times 789. \\
7861 &= 1^2 + 3 \times 4 \times 5 \times (6 \times 7 + 89). \\
7862 &= 1 \times 2 + 3 \times 4 \times 5 \times (6 \times 7 + 89). \\
7863 &= 12 + 3 + 4 \times (5 \times 6 \times 7 + 8) \times 9. \\
7864 &= (1 + (2 + 3)^4) \times 5 + 6 \times 789. \\
7865 &= 12 \times (3^4 + 567) + 89. \\
7866 &= 123 + (45 + 6 \times 7) \times 89. \\
7867 &= 1^2 + (34 + 56 \times (7 + 8)) \times 9. \\
7868 &= 1 \times 2 + (34 + 56 \times (7 + 8)) \times 9. \\
7869 &= (1 + 23) \times 45 + 6789. \\
7870 &= 1 + 23 \times (4 + 5 \times 67) + 8 \times 9. \\
7871 &= 1 + 2^{(3+4)} \times 56 + 78 \times 9. \\
7872 &= 12 + 3 \times 4 \times 5 \times (6 \times 7 + 89). \\
7873 &= 1^2 + 3 \times 4 \times (567 + 89). \\
7874 &= 1 \times 2 + 3 \times 4 \times (567 + 89). \\
7875 &= 12^3 + 45 + 678 \times 9. \\
7876 &= 1 \times 2 + 3 + (456 + 7) \times (8 + 9). \\
7877 &= 1 \times 2 \times 3 + (456 + 7) \times (8 + 9). \\
7878 &= 12 \times 345 + 6 \times 7 \times 89. \\
7879 &= 12^3 + 4 + (5 + 678) \times 9. \\
7880 &= (123 \times (4 + 5) + 6) \times 7 + 89. \\
7881 &= 12 \times (3^4 + 567 + 8) \times 9. \\
7882 &= (1 + 2 \times 3) \times (4^5 + 6 + 7 + 89). \\
7883 &= 1 + 2 \times (3 + 4) \times (5 + (6 + 7 \times 8) \times 9). \\
7884 &= 12 \times 3^4 \times 5 + 6 \times 7 \times 8 \times 9. \\
7885 &= 1 + 2 \times 3^4 + (5 + 6) \times 78 \times 9. \\
7886 &= 1 \times 23 \times (4 + 5 \times 67) + 89. \\
7887 &= 1 + 23 \times (4 + 5 \times 67) + 89. \\
7888 &= (1^{23} + 456 + 7) \times (8 + 9). \\
7889 &= 1 + 2^3 \times (45 + 6 + 7) \times (8 + 9). \\
7890 &= 1 + 23 \times (4 \times 56 + 7 \times (8 + 9)). \\
7891 &= (1 + (2 \times 3)^4 + 5) \times 6 + 7 + 8 \times 9. \\
7892 &= 1 - 2 + 3 \times (-4 + 5 \times (67 \times 8 - 9)). \\
7893 &= (1 + 2 \times 34 \times 5 + 67 \times 8) \times 9. \\
7894 &= 1 \times 23 + (456 + 7) \times (8 + 9). \\
7895 &= 1 + 23 + (456 + 7) \times (8 + 9). \\
7896 &= 123 \times (4 + 5) + 6789. \\
7897 &= 1^2 + 3 \times 4^5 + 67 \times 8 \times 9. \\
7898 &= 1234 + 56 \times 7 \times (8 + 9). \\
7899 &= 1 + 2 + 3 \times 4^5 + 67 \times 8 \times 9. \\
7900 &= 1 \times (2 + 3) \times 4 \times (5 + 6 \times (7 \times 8 + 9)).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7831 &= (98 + 76) \times 5 \times (4 + 3 + 2) + 1. \\
7832 &= (9 + 8 \times 7) \times 6 \times 5 \times 4 + 32 \times 1. \\
7833 &= 987 + (6 + 5 \times 4^3) \times 21. \\
7834 &= 9 \times 876 - 5 - 43 - 2 \times 1. \\
7835 &= (9 + 8) \times (7 \times 65 + 4) + 32 \times 1. \\
7836 &= 9 + 8 + 7 + 6^5 + 4 + 32 \times 1. \\
7837 &= 9 + 8 + 7 + 6^5 + 4 + 32 + 1. \\
7838 &= 9 \times 876 - 5 - 43 + 2 \times 1. \\
7839 &= 98 + 7 + 6 \times (5 + 4 \times 321). \\
7840 &= 98 \times (7 \times 6 + 5 + 4 \times 3 + 21). \\
7841 &= 9 + 8 \times 7 + 6 \times 54 \times (3 + 21). \\
7842 &= 98 \times (7 + 6 \times 5 + 43) + 2 \times 1. \\
7843 &= 98 \times (7 + 6 \times 5 + 43) + 2 + 1. \\
7844 &= 9 + 8 \times (7 + 6 \times 54 \times 3) + 2 + 1. \\
7845 &= 9 + 8 + 7 + 6^5 + 43 + 2 \times 1. \\
7846 &= 9 + 8 + 7 + 6^5 + 43 + 2 + 1. \\
7847 &= (9 + 8 + 7 \times 6) \times (5 + 4 \times 32 \times 1). \\
7848 &= 9 \times 8 \times (7 + 65 + 4 + 32 + 1). \\
7849 &= 9 + 8 \times 7 \times (6 + 5 + 4 \times 32 + 1). \\
7850 &= 9 + 8 \times 7 + 6^5 + 4 + 3 + 2 \times 1. \\
7851 &= 9 + 8 \times 7 + 6^5 + 4 + 3 + 2 + 1. \\
7852 &= 9 + 8 \times 7 + 6^5 + 4 + 3 \times 2 + 1. \\
7853 &= (9 + 8) \times 7 + 6 \times (5 + 4 \times 321). \\
7854 &= 987 + (6 \times 54 + 3) \times 21. \\
7855 &= 9 + 8 \times 7 + 6^5 + 4 + 3^2 + 1. \\
7856 &= 9 + 8 \times 7 + 6^5 + 4 \times 3 + 2 + 1. \\
7857 &= 9 + 8 \times (7 + 6 \times 54 \times 3 + 2 \times 1). \\
7858 &= 9 + (8 + 7 \times 6 \times 5) \times 4 \times 3^2 + 1. \\
7859 &= 9 \times 876 - 5 + 4 - 3 - 21. \\
7860 &= 9 \times (8 + 765) + 43 \times 21. \\
7861 &= 9 + 8 \times 7 + 6^5 + 4 \times (3 + 2) \times 1. \\
7862 &= 9 + 8 \times (7 + 6 \times 54 \times 3) + 21. \\
7863 &= (9 + 8 \times 7) \times 6 \times 5 \times 4 + 3 \times 21. \\
7864 &= 9 + 8 + 7 + 6^5 + 43 + 21. \\
7865 &= 9 + 8 \times 7 + 6^5 + 4 \times 3 \times 2 \times 1. \\
7866 &= 98 \times 7 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
7867 &= 98 \times 7 \times 6 + 5^4 \times 3 \times 2 + 1. \\
7868 &= 9 \times 8 + 7 + 6^5 + 4 + 3^2 \times 1. \\
7869 &= 9 \times 8 + 7 + 6^5 + 4 + 3^2 + 1. \\
7870 &= 9 \times 8 + 7 + 6^5 + 4 \times 3 + 2 + 1. \\
7871 &= 98 \times 7 \times (6 + 5) + 4 + 321. \\
7872 &= (9 + 87 \times 6 \times 5 + 4) \times 3 + 2 + 1. \\
7873 &= 98 \times 76 + 5 \times (4^3 + 21). \\
7874 &= 9 + 8 \times 7 + 6^5 + 4 \times 3 + 21. \\
7875 &= 98 + (7 + 6 + 5) \times 432 + 1. \\
7876 &= 9 \times 8 + 7 + 6^5 + 4 \times (3 + 2) + 1. \\
7877 &= 9 + 8 \times 7 + 6^5 + 4 + 32 \times 1. \\
7878 &= 98 \times 76 + 5 \times 43 \times 2 \times 1. \\
7879 &= 98 \times 76 + 5 \times 43 \times 2 + 1. \\
7880 &= 9 \times 8 + 7 + 6^5 + 4 \times 3 \times 2 + 1. \\
7881 &= 9 + 87 + 6^5 + 4 + 3 + 2 \times 1. \\
7882 &= 9 + 87 + 6^5 + 4 + 3 + 2 + 1. \\
7883 &= 9 \times 8 + 7 + 6^5 + 4 + 3 + 21. \\
7884 &= 9 + (8 \times 7 + 65 + 4) \times 3 \times 21. \\
7885 &= 98 \times 76 + 5 + 432 \times 1. \\
7886 &= 98 \times 76 + 5 + 432 + 1. \\
7887 &= 9 + 87 + 6^5 + 4 \times 3 + 2 + 1. \\
7888 &= 9 \times 8 + 7 + 6^5 + 4 \times 3 + 21. \\
7889 &= (98 \times 7 + 6 \times 543) \times 2 + 1. \\
7890 &= 98 + 7 + 6^5 + 4 + 3 + 2 \times 1. \\
7891 &= 9 \times 8 + 7 + 6^5 + 4 + 32 \times 1. \\
7892 &= 98 + 7 + 6^5 + 4 + 3 \times 2 + 1. \\
7893 &= 9 + 87 + 6^5 + 4 \times (3 + 2) + 1. \\
7894 &= 98 + 7 + 6^5 + 4 + 3^2 \times 1. \\
7895 &= 98 + 7 + 6^5 + 4 + 3^2 + 1. \\
7896 &= 9 + 87 + 6^5 + 4 \times 3 \times 2 \times 1. \\
7897 &= 9 + 87 + 6^5 + 4 \times 3 \times 2 + 1. \\
7898 &= 9 \times 876 + 5 + 4 + 3 + 2 \times 1. \\
7899 &= 9 \times 876 + 5 + 4 + 3 + 2 + 1. \\
7900 &= 9 + 87 + 6^5 + 4 + 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7901 &= (123 + 4) \times 56 + 789. \\
7902 &= (12 + 3 \times 45 \times 6 + 7 \times 8) \times 9. \\
7903 &= 1 + ((2 \times 3)^4 + 5) \times 6 + 7 + 89. \\
7904 &= 1 - 2 + (3 \times 45 + 6) \times 7 \times 8 + 9. \\
7905 &= 1^2 \times (3 \times 45 + 6) \times 7 \times 8 + 9. \\
7906 &= 1^2 + (3 \times 45 + 6) \times 7 \times 8 + 9. \\
7907 &= 12 \times 3 + (456 + 7) \times (8 + 9). \\
7908 &= 12 + 3 \times 4^5 + 67 \times 8 \times 9. \\
7909 &= (1 + 2 \times 3 + 4) \times (5 + 6 \times 7 \times (8 + 9)). \\
7910 &= 1 \times 2 \times (3 + 4) \times 5 \times ((6 + 7) \times 8 + 9). \\
7911 &= (1 + 2) \times (34 + 5) \times 67 + 8 \times 9. \\
7912 &= 1 \times (2 + 3) \times 4 \times 56 \times 7 + 8 \times 9. \\
7913 &= 1 + (2 + 3) \times 4 \times 56 \times 7 + 8 \times 9. \\
7914 &= (1 + 23 \times 4) \times ((5 + 6) \times 7 + 8) + 9. \\
7915 &= -12^2 + 4 + 567 \times (8 + 9). \\
7916 &= (1^2 + 3) \times (45 \times 6 \times 7 + 89). \\
7917 &= 12 + (3 \times 45 + 6) \times 7 \times 8 + 9. \\
7918 &= -1 + 2 + 3 \times (4 + 5 \times (67 \times 8 - 9)). \\
7919 &= (1 + (2 + 3) \times 4 \times 56) \times 7 + 8 \times 9. \\
7920 &= (1 \times 23 + 45 + 6 \times 7) \times 8 \times 9. \\
7921 &= 1 \times 23 \times 4 \times (5 \times 6 + 7 \times 8) + 9. \\
7922 &= 1 + 23 \times 4 \times (5 \times 6 + 7 \times 8) + 9. \\
7923 &= 123 + 4 \times 5 \times 6 \times (7 \times 8 + 9). \\
7924 &= (1 + 2 \times 3) \times 4^5 + (6 + 78) \times 9. \\
7925 &= 1 \times (2 + 3) \times (4 \times 56 \times 7 + 8 + 9). \\
7926 &= (1 + 2^{(3+4)}) \times 56 + 78 \times 9. \\
7927 &= 1 - 2 \times (3 \times 4 - 5 \times (6 + 789)). \\
7928 &= (1 + 2) \times (34 + 5) \times 67 + 89. \\
7929 &= (1 \times 2 + 3) \times 4 \times 56 \times 7 + 89. \\
7930 &= 1 + (2 + 3) \times 4 \times 56 \times 7 + 89. \\
7931 &= 1 + (23 \times 4 + 5 \times 6) \times (7 \times 8 + 9). \\
7932 &= (1 + 2) \times (34 + 5 \times 6 \times (78 + 9)). \\
7933 &= 12 + (3 \times 4 + (5 + 6) \times 7) \times 89. \\
7934 &= 12 + (3 + 456 + 7) \times (8 + 9). \\
7935 &= (1 + 2 + 3 \times 4) \times (5 \times (6 + 7) \times 8 + 9). \\
7936 &= 123 + 4^5 + 6789. \\
7937 &= 12^3 + 4^5 \times 6 + 7 \times 8 + 9. \\
7938 &= (1234 + 5) \times 6 + 7 \times 8 \times 9. \\
7939 &= 1^2 + 3^4 \times (5 + 6 + 78 + 9). \\
7940 &= 1 \times 2 + 3^4 \times (5 + 6 + 78 + 9). \\
7941 &= 1 + 2 + 3^4 \times (5 + 6 + 78 + 9). \\
7942 &= 1 + ((2 \times 3)^4 + 5) \times 6 + (7 + 8) \times 9. \\
7943 &= (1 + 2) \times 34 \times (5 + 6) \times 7 + 89. \\
7944 &= 1 \times 23 \times (4 + 5 + 6 \times 7 \times 8) + 9. \\
7945 &= 1 + 23 \times (4 + 5 + 6 \times 7 \times 8) + 9. \\
7946 &= 1 - 2 + 3 \times (4 + 5 \times 6) \times 78 - 9. \\
7947 &= (1 \times 2 + 345 + 67 \times 8) \times 9. \\
7948 &= 1 + (2 + 345 + 67 \times 8) \times 9. \\
7949 &= (12^3 + 4)^5 + 67 \times 8 \times 9. \\
7950 &= 12 + 3^4 \times (5 + 6 + 78 + 9). \\
7951 &= 12^3 + 4^5 \times 6 + 7 + 8 \times 9. \\
7952 &= 1 + 2 \times 3 \times 4 \times 5 \times 67 - 89. \\
7953 &= -12 + 3 \times (4 + 5 \times 6) \times 78 + 9. \\
7954 &= (1 + (2 + 3)^4) \times 5 + 67 \times 8 \times 9. \\
7955 &= 1 \times 2 \times (3 + 4) \times 567 + 8 + 9. \\
7956 &= 12 \times (3 + 4 + 567 + 89). \\
7957 &= 1 + 234 + (5 + 6) \times 78 \times 9. \\
7958 &= 1 + 2^{(3+4)} \times 56 + 789. \\
7959 &= 1 \times 234 \times 5 + 6789. \\
7960 &= 1 + 234 \times 5 + 6789. \\
7961 &= 1 + (2 \times 3)^4 + 56 \times 7 \times (8 + 9). \\
7962 &= -1 - 2 + 3 \times (4 + 5 \times 6) \times 78 + 9. \\
7963 &= (1 + 2 \times 3) \times 4^5 + 6 + 789. \\
7964 &= (1 + 234) \times 5 + 6789. \\
7965 &= (12 + 34 + 56) \times 78 + 9. \\
7966 &= 1 + (2^3 + 45 + 6) \times (7 + 8) \times 9. \\
7967 &= 1 \times 2 + (3 \times 4 + 5) \times 6 \times 78 + 9. \\
7968 &= 12^3 + 4^5 \times 6 + 7 + 89. \\
7969 &= 1 + (23 + 4 + 56) \times (7 + 89). \\
7970 &= -1 + 2^3 \times 4^5 - (6 + 7) \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7901 &= 9 \times 8 + 7 + 6^5 + 43 + 2 + 1. \\
7902 &= 9 \times 876 + 5 + 4 + 3^2 \times 1. \\
7903 &= 9 \times 876 + 5 + 4 + 3^2 + 1. \\
7904 &= 9 \times 876 + 5 + 4 \times 3 + 2 + 1. \\
7905 &= 9 + 87 + 6^5 + 4 \times 3 + 21. \\
7906 &= 98 + 7 + 6^5 + 4 \times 3 \times 2 + 1. \\
7907 &= 9 + 8 \times 7 + 6^5 + 4^3 + 2 \times 1. \\
7908 &= 9 + 8 \times 7 + 6^5 + 4 + 3 \times 21. \\
7909 &= 9 + 87 + 6^5 + 4 + 32 + 1. \\
7910 &= 9 \times 876 + 5 \times 4 + 3 + 2 + 1. \\
7911 &= 9 \times 876 + 5 \times 4 + 3 \times 2 + 1. \\
7912 &= 9 + 87 + 6^5 + 4 \times (3^2 + 1). \\
7913 &= 9 \times 876 + 5 + 4 \times 3 \times 2 \times 1. \\
7914 &= 9 \times 876 + 5 + 4 \times 3 \times 2 + 1. \\
7915 &= ((9 + 8) \times 7 + 65) \times 43 + 2 + 1. \\
7916 &= (9 + 8) \times 7 + 6^5 + 4 \times (3 + 2) + 1. \\
7917 &= 98 + 7 + 6^5 + 4 + 32 \times 1. \\
7918 &= 9 + 87 + 6^5 + 43 + 2 + 1. \\
7919 &= 9 \times 8 + 7 + 6^5 + 43 + 21. \\
7920 &= 9 \times (8 + 7 + 65) \times (4 + 3 \times 2 + 1). \\
7921 &= 98 + 7 + 6^5 + 4 \times (3^2 + 1). \\
7922 &= 9 \times 876 + 5 + 4 \times 3 + 21. \\
7923 &= (9 + 8) \times 7 + 6^5 + 4 + 3 + 21. \\
7924 &= 9 \times (8 + 7) + 6^5 + 4 + 3^2 \times 1. \\
7925 &= 9 \times 876 + 5 + 4 + 32 \times 1. \\
7926 &= 9 \times 876 + 5 + 4 + 32 + 1. \\
7927 &= 98 + 7 + 6^5 + 43 + 2 + 1. \\
7928 &= 9 \times 876 + 5 \times 4 + 3 + 21. \\
7929 &= 9 + 8 + 7 + 6^5 + 4 \times 32 + 1. \\
7930 &= 98 + 7 + 6^5 + (4 + 3)^2 \times 1. \\
7931 &= 98 + 7 + 6^5 + (4 + 3)^2 + 1. \\
7932 &= 9 \times 876 + (5 + 4) \times 3 + 21. \\
7933 &= ((9 + 8) \times 7 + 65) \times 43 + 21. \\
7934 &= 9 \times 876 + 5 + 43 + 2 \times 1. \\
7935 &= 98 \times 76 + 54 \times 3^2 + 1. \\
7936 &= 9 + 87 + 6^5 + 43 + 21. \\
7937 &= 9 \times 876 + 5 \times 4 + 32 + 1. \\
7938 &= 9 + 87 + 6^5 + 4^3 + 2 \times 1. \\
7939 &= 9 + 87 + 6^5 + 4 + 3 \times 21. \\
7940 &= 9 \times 8 + 7 + 6^5 + 4^3 + 21. \\
7941 &= 9 \times 8 + 7 + 6^5 + 43 \times 2 \times 1. \\
7942 &= 9 \times 8 + 7 + 6^5 + 43 \times 2 + 1. \\
7943 &= 9 \times 876 + 54 + 3 + 2 \times 1. \\
7944 &= 9 \times 876 + 54 + 3 + 2 + 1. \\
7945 &= 9 \times 876 + 54 + 3 \times 2 + 1. \\
7946 &= 9 \times 876 + 5 \times 4 \times 3 + 2 \times 1. \\
7947 &= 9 \times 876 + 5 \times 4 \times 3 + 2 + 1. \\
7948 &= 98 + 7 + 6^5 + 4 + 3 \times 21. \\
7949 &= 98 \times (76 + 5) + 4 + 3 \times 2 + 1. \\
7950 &= 9 \times 876 + 5 \times (4 + 3^2) + 1. \\
7951 &= 98 \times (76 + 5) + 4 + 3^2 \times 1. \\
7952 &= 98 \times (76 + 5) + 4 \times 3 + 2 \times 1. \\
7953 &= 9 \times 876 + 5 + 43 + 21. \\
7954 &= 9 \times 876 + 5 \times (4 + 3) \times 2 \times 1. \\
7955 &= 9 \times 876 + 5 + 4^3 + 2 \times 1. \\
7956 &= 9 \times 876 + 5 + 4 + 3 \times 21. \\
7957 &= 9 + 87 + 6^5 + 4^3 + 21. \\
7958 &= 9 + 87 + 6^5 + 43 \times 2 \times 1. \\
7959 &= (9 + 8) \times 7 + 6^5 + 43 + 21. \\
7960 &= (9 + 8) \times (7 \times 65 + 4 \times 3) + 21. \\
7961 &= (9 + 8) \times 7 + 6^5 + 4^3 + 2 \times 1. \\
7962 &= 9 \times 876 + 54 + 3 + 21. \\
7963 &= 98 \times (76 + 5) + 4 \times 3 \times 2 + 1. \\
7964 &= 9 \times 876 - 5 + 43 \times 2 - 1. \\
7965 &= 9 \times 876 + 5 \times 4 \times 3 + 21. \\
7966 &= 98 + 7 + 6^5 + 4^3 + 21. \\
7967 &= 9 \times 876 + 5 \times 4 + 3 \times 21. \\
7968 &= 98 + 7 + 6^5 + 43 \times 2 + 1. \\
7969 &= 9 + 8 \times 7 + 6^5 + 4^3 \times 2 \times 1. \\
7970 &= 9 + 8 \times 7 \times 65 + 4321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
7971 &= 123 + 4 \times (5 \times 6 \times 7 + 8) \times 9. \\
7972 &= 1 + 2 \times (3 + (45 + 6) \times 78) + 9. \\
7973 &= (1 + 2 + 34 + 5 \times 6) \times 7 \times (8 + 9). \\
7974 &= 1 \times 2 \times (3 \times 4 + 5 \times (6 + 789)). \\
7975 &= 1 + 2 \times (3 \times 4 + 5 \times (6 + 789)). \\
7976 &= 1 + 2^{(3+4)} \times (56 + 7) - 89. \\
7977 &= 12 + 3 \times 45 \times (6 \times 7 + 8 + 9). \\
7978 &= (1^2 + 3)^4 + (5 + 6) \times 78 \times 9. \\
7979 &= ((12 + 3 + 4) \times 5 + 6) \times (7 + 8 \times 9). \\
7980 &= 12 \times (3^4 + 567 + 8 + 9). \\
7981 &= 1 + 2 \times (3 + (45 + 6) \times 78 + 9). \\
7982 &= 12 \times 3 \times 4 \times 56 + 7 - 89. \\
7983 &= 12^3 + 45 \times (67 + 8 \times 9). \\
7984 &= 1^2 + 3 \times ((4 + 5 \times 6) \times 78 + 9). \\
7985 &= ((1 + 2^3 \times 4) \times 5 \times 6 + 7) \times 8 + 9. \\
7986 &= 1 + 2 + 3 \times ((4 + 5 \times 6) \times 78 + 9). \\
7987 &= (123 + 4^5 - 6) \times 7 \times (-8 + 9). \\
7988 &= (123 + 4^5 - 6) \times 7 - 8 + 9. \\
7989 &= (12 + 3 + 4) \times 5 \times (6 + 78) + 9. \\
7990 &= (1 + 2 \times 3 + 456 + 7) \times (8 + 9). \\
7991 &= 12^3 + 4^5 \times 6 + 7 \times (8 + 9). \\
7992 &= 12 \times (3 + 4 + 5 + 6 + 7 \times 8) \times 9. \\
7993 &= 1 + 2 \times 3 \times (4 + (5 + 6 + 7) \times 8) \times 9. \\
7994 &= 123 + (456 + 7) \times (8 + 9). \\
7995 &= (12 + 3^4 + 5 \times 6) \times (7 \times 8 + 9). \\
7996 &= 1^2 + (3 + 4 \times 5 \times 6) \times (7 \times 8 + 9). \\
7997 &= 1 \times 2 + (3 + 4 \times 5 \times 6) \times (7 \times 8 + 9). \\
7998 &= 1^2 \times (3^4 + 5) \times (6 + 78 + 9). \\
7999 &= 1^2 + (3^4 + 5) \times (6 + 78 + 9). \\
8000 &= (1 + 2 + 3 + 4) \times (5 + 6 + 789). \\
8001 &= 12 \times 3 \times (4 + 5 \times 6 \times 7 + 8) + 9. \\
8002 &= 1 + (23 + 4) \times (5 \times 6 + 7) \times 8 + 9. \\
8003 &= 12 \times 34 \times 5 + 67 \times 89. \\
8004 &= (1 + 2)^3 \times 45 + 6789. \\
8005 &= 1 + (2 + 34 + 56) \times (78 + 9). \\
8006 &= 1 \times 2 + (3^4 + 5 + 6) \times (78 + 9). \\
8007 &= 12^3 + 4^5 \times 6 + (7 + 8) \times 9. \\
8008 &= 1^2 \times (3 + 4) \times (5 + 67 \times (8 + 9)). \\
8009 &= 1 \times 2^3 \times 4 \times 5 \times (6 \times 7 + 8) + 9. \\
8010 &= 1 \times 2 \times (3 + 4) \times 567 + 8 \times 9. \\
8011 &= 1 + 2 \times (3 + 4) \times 567 + 8 \times 9. \\
8012 &= 1 \times 2 + (3 + 4 \times 5 + 67) \times 89. \\
8013 &= 1 \times 23 \times (45 \times 6 + 78) + 9. \\
8014 &= 1 + 23 \times (45 \times 6 + 78) + 9. \\
8015 &= (1 - 23 + 4^5 - 6 + 7) \times 8 - 9. \\
8016 &= 12 \times (3 \times 4 + 567 + 89). \\
8017 &= 1 \times 2 \times (3 + 4^5) + 67 \times 89. \\
8018 &= 1 + 2 \times (3 + 4^5) + 67 \times 89. \\
8019 &= (1 + 2 + 3 \times 45 \times 6 + 78) \times 9. \\
8020 &= 12 + (3 + 4) \times (5 + 67 \times (8 + 9)). \\
8021 &= 1 \times 2 + 3^4 \times (5 \times 6 + 78 - 9). \\
8022 &= 12 + (3 + 4 \times 5 + 67) \times 89. \\
8023 &= ((1 + 2)^3 \times 4 + 5) \times (6 + 7 \times 8 + 9). \\
8024 &= (1 + 2^3 + 456 + 7) \times (8 + 9). \\
8025 &= (12 + 3) \times (456 + 7 + 8 \times 9). \\
8026 &= 1 \times 2 + (3^4 \times 5 + 67) \times (8 + 9). \\
8027 &= 1 \times 2 \times (3 + 4) \times 567 + 89. \\
8028 &= 1234 + 5 + 6789. \\
8029 &= ((1 + 2)^3 + 4) \times (5 \times (6 \times 7 + 8) + 9). \\
8030 &= (1 \times 2 + 3) \times (4 + (5 + 6 + 7) \times 89). \\
8031 &= 1 + 2 + (34 + (5 + 6) \times 78) \times 9. \\
8032 &= 1 + (2 \times 3 + 4 + 5) \times 67 \times 8 - 9. \\
8033 &= ((-1 + 23) \times 45 + 6 + 7) \times 8 + 9. \\
8034 &= ((1 + 2) \times 34 + 5) \times (67 + 8) + 9. \\
8035 &= -1 + 2^3 \times 4^5 - 67 - 89. \\
8036 &= (1^2 + 3^4) \times (5 + 6 + 78 + 9). \\
8037 &= (12 + 345 + 67 \times 8) \times 9. \\
8038 &= -1 + 2 \times 3 \times 4 \times 5 \times 67 + 8 - 9. \\
8039 &= 1 \times 2 \times 3 \times 4 \times 5 \times 67 + 8 - 9. \\
8040 &= (1 + 23) \times (45 \times 6 + 7 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
7971 &= 9 \times 876 + 54 + 32 + 1. \\
7972 &= 9 \times (876 + 5 + 4) + 3 \times 2 + 1. \\
7973 &= 9 + 8 \times 7 + 6^5 + 4 \times (32 + 1). \\
7974 &= 9 \times 876 + 5 + 4^3 + 21. \\
7975 &= 9 \times 876 + 5 + 43 \times 2 \times 1. \\
7976 &= 9 \times 876 + 5 + 43 \times 2 + 1. \\
7977 &= 9 \times (8 + 7) + 6^5 + 4^3 + 2 \times 1. \\
7978 &= 9 + 8 \times 765 + 43^2 \times 1. \\
7979 &= 9 + 8 \times 765 + 43^2 + 1. \\
7980 &= 9 \times 876 + (5 + 43) \times 2 \times 1. \\
7981 &= (9 + 8) \times 7 + 6^5 + 43 \times 2 \times 1. \\
7982 &= (9 + 8) \times 7 + 6^5 + 43 \times 2 + 1. \\
7983 &= 9 \times 8 + 7 + 6^5 + 4 \times 32 \times 1. \\
7984 &= 9 \times 8 + 7 + 6^5 + 4^3 \times 2 + 1. \\
7985 &= 9 \times 876 + 5 + 4 \times (3 + 21). \\
7986 &= 9 + 8 \times 7 + 6^5 + (4 \times 3)^2 + 1. \\
7987 &= (9 + 8) \times 7 \times 65 + 4 \times 3 \times 21. \\
7988 &= 98 \times 76 + 54 \times (3^2 + 1). \\
7989 &= 9 \times (876 + 5 + 4) + 3 + 21. \\
7990 &= (9 + 8) \times (7 \times 65 + 4 \times 3 + 2 + 1). \\
7991 &= (9 + 8) \times 7 + 6^5 + 4 \times (3 + 21). \\
7992 &= 9 + 8 + 7654 + 321. \\
7993 &= 98 \times 76 + 543 + 2 \times 1. \\
7994 &= 98 \times 76 + 543 + 2 + 1. \\
7995 &= (9 + 8 \times 7) \times (6 + 54 + 3 \times 21). \\
7996 &= 9 \times (876 + 5) + 4 + 3 \times 21. \\
7997 &= 9 \times (8 + 7) + 6^5 + 43 \times 2 \times 1. \\
7998 &= 9 \times 876 + (54 + 3) \times 2 \times 1. \\
7999 &= 9 \times 876 + (54 + 3) \times 2 + 1. \\
8000 &= 9 + 87 + 6^5 + 4^3 \times 2 \times 1. \\
8001 &= 9 \times 876 + 54 + 3 \times 21. \\
8002 &= 98 \times (76 + 5) + 43 + 21. \\
8003 &= (9 + 8) \times 7 + 6^5 + 4 \times 3^{(2+1)}. \\
8004 &= 9 \times 876 + 5 \times 4 \times 3 \times 2 \times 1. \\
8005 &= 9 \times 876 + 5 \times 4 \times 3 \times 2 + 1. \\
8006 &= (9 \times 8 \times (7 + 6 \times 5) + 4) \times 3 + 2 \times 1. \\
8007 &= 9 + (87 + 6) \times (54 + 32 \times 1). \\
8008 &= 9 + (87 + 6) \times (54 + 32) + 1. \\
8009 &= 98 + 7 + 6^5 + 4^3 \times 2 \times 1. \\
8010 &= 98 + 7 + 6^5 + 4^3 \times 2 + 1. \\
8011 &= (9 + 876 + 5) \times (4 + 3 + 2) + 1. \\
8012 &= 98 \times 76 + 543 + 21. \\
8013 &= 9 + 87 \times (6 + 54 + 32 \times 1). \\
8014 &= 9 + 87 \times (6 + 54 + 32) + 1. \\
8015 &= 98 \times 76 + (5 + 4) \times 3 \times 21. \\
8016 &= 9 \times (876 + 5) + 43 \times 2 + 1. \\
8017 &= 9 \times 876 + 5 + 4^3 \times 2 \times 1. \\
8018 &= 9 \times 876 + 5 + 4^3 \times 2 + 1. \\
8019 &= 9 + 87 + 6^5 + (4 + 3) \times 21. \\
8020 &= (9 \times (87 + 6) + 54) \times 3^2 + 1. \\
8021 &= 9 \times 876 + 5 + 4 \times (32 + 1). \\
8022 &= 9 \times 876 + (5 + 4^3) \times 2 \times 1. \\
8023 &= (9 + 8) \times 7 + 6^5 + 4^3 \times 2 \times 1. \\
8024 &= (9 \times 8 + 76) \times 54 + 32 \times 1. \\
8025 &= 98 \times (76 + 5) + 43 \times 2 + 1. \\
8026 &= 98 + 7 + 6^5 + (4 \times 3)^2 + 1. \\
8027 &= (9 + 8) \times 7 + 6^5 + 4 \times (32 + 1). \\
8028 &= 98 + 7 + 6^5 + (4 + 3) \times 21. \\
8029 &= 9 \times 876 + (5 + 4 + 3)^2 + 1. \\
8030 &= ((9 + 8) \times (7 \times 6 + 5) + 4) \times (3^2 + 1). \\
8031 &= 9 + (87 \times 6 \times 5 + 4^3) \times (2 + 1). \\
8032 &= 9 + 8 + 7 + 6 + (5 \times 4)^3 + 2 \times 1. \\
8033 &= 9 \times 876 + 5 + (4 \times 3)^2 \times 1. \\
8034 &= 9 \times 876 + 5 + (4 \times 3)^2 + 1. \\
8035 &= ((9 + 8) \times 7 \times 6 + 5^4) \times 3 \times 2 + 1. \\
8036 &= 9 \times 876 + 5 + (4 + 3) \times 21. \\
8037 &= 98 \times 7 + 6 \times (5 \times (4 + 3))^2 + 1. \\
8038 &= 98 \times (7 + 6 + 5 + 4^3) + 2 \times 1. \\
8039 &= 9 \times (8 + 7) + 6^5 + 4 \times 32 \times 1. \\
8040 &= (98 \times 7 + 654) \times 3 \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8041 &= (1 \times 23 \times 4 \times 5 + 6 + 7) \times (8 + 9). \\
8042 &= 1^2 + (3^4 + 56 \times 7) \times (8 + 9). \\
8043 &= (1 \times 23 \times 4 + 5 + 6) \times 78 + 9. \\
8044 &= 1 + (23 \times 4 + 5 + 6) \times 78 + 9. \\
8045 &= (1 \times 2 + 3) \times (4 \times (56 \times 7 + 8) + 9). \\
8046 &= (1 \times 2 \times 3^4 \times 5 + 6 + 78) \times 9. \\
8047 &= 1 + (2 \times 3^4 \times 5 + 6 + 78) \times 9. \\
8048 &= 1 \times 2^3 \times 4^5 - 6 \times (7 + 8 + 9). \\
8049 &= (1 + 2 + 3 + 4 + 5) \times 67 \times 8 + 9. \\
8050 &= 1 + (2 \times 3 + 4 + 5) \times 67 \times 8 + 9. \\
8051 &= 1 \times 2^3 \times 4^5 - 6 - (7 + 8) \times 9. \\
8052 &= 123 \times 4 + 56 \times (7 + 8) \times 9. \\
8053 &= 12 + (((3^4) + (56 \times 7)) \times (8 + 9)). \\
8054 &= 12 \times 3 \times 4 \times 56 + 7 - 8 - 9. \\
8055 &= (1 + 2 \times 3^4 \times 5 + 6 + 78) \times 9. \\
8056 &= 12^3 \times 4 + 5 + 6 \times (8 + 9). \\
8057 &= 1 \times 2 \times 3 \times 4 \times 5 \times 67 + 8 + 9. \\
8058 &= 1 + 2 \times 3 \times 4 \times 5 \times 67 + 8 + 9. \\
8059 &= 1 \times 2 \times (3 + 4) \times (567 + 8) + 9. \\
8060 &= 1 + 2 \times (3 + 4) \times (567 + 8) + 9. \\
8061 &= 12 \times (3 \times 45 + 67 \times 8) + 9. \\
8062 &= 1^2 + 3 \times (4 + 5 \times 67 \times 8) + 9. \\
8063 &= 1 \times 2 + 3 \times (4 + 5 \times 67 \times 8) + 9. \\
8064 &= 1^{23} \times (45 + 67) \times 8 \times 9. \\
8065 &= 1^{23} + (45 + 67) \times 8 \times 9. \\
8066 &= (1 + 2 \times (3 \times 4 \times 5 \times 67 + 8)) + 9. \\
8067 &= 1^2 \times 3 + (45 + 67) \times 8 \times 9. \\
8068 &= 1^2 + 3 + (45 + 67) \times 8 \times 9. \\
8069 &= (1^2 + 3)^4 \times 5 + 6789. \\
8070 &= 1 \times 2 \times 3 + (45 + 67) \times 8 \times 9. \\
8071 &= 1 + 2 \times 3 + (45 + 67) \times 8 \times 9. \\
8072 &= 1 \times 2^3 + (45 + 67) \times 8 \times 9. \\
8073 &= 12 + 3 \times (4 + 5 \times 67 \times 8) + 9. \\
8074 &= 12^3 \times 4 + 5 + (6 + 7) \times 89. \\
8075 &= (1 \times 2 + 3^4 + 56 \times 7) \times (8 + 9). \\
8076 &= 12 \times (34 + 567 + 8 \times 9). \\
8077 &= -1 + 2^3 \times 4^5 - 6 \times 7 - 8 \times 9. \\
8078 &= 1 \times 2^3 \times 4^5 - 6 \times 7 - 8 \times 9. \\
8079 &= (1 + 2)^3 \times 45 \times 6 + 789. \\
8080 &= 1^2 + 3 \times (4 + 5 \times 67 \times 8 + 9). \\
8081 &= 1 \times 2 + 3 \times (4 + 5 \times 67 \times 8 + 9). \\
8082 &= 123 \times (4 + 56) + 78 \times 9. \\
8083 &= 1 \times (2 + 3 \times 45) \times (6 \times 7 + 8 + 9). \\
8084 &= 1 + (2 + 3 \times 45) \times (6 \times 7 + 8 + 9). \\
8085 &= (1 + 2 \times 3) \times (4^5 + 6 \times 7 + 89). \\
8086 &= -1 \times 2 + 3 \times 4 \times (5 + 678 - 9). \\
8087 &= 1234 + (5 + 6) \times 7 \times 89. \\
8088 &= 12 \times 3 \times 4 \times 56 + 7 + 8 + 9. \\
8089 &= 1 + 2 \times 3 \times (4 + 56 \times (7 + 8 + 9)). \\
8090 &= 1 \times (2 \times 3)^4 + 5 + 6789. \\
8091 &= 1 + (2 \times 3)^4 + 5 + 6789. \\
8092 &= 1 \times 2 \times 34 \times (5 + 6 \times 7 + 8 \times 9). \\
8093 &= 1 + 2 \times 34 \times (5 + 6 \times 7 + 8 \times 9). \\
8094 &= 1 \times 2 + (3 \times 4 + 56) \times 7 \times (8 + 9). \\
8095 &= 1 + 2 + (3 \times 4 + 56) \times 7 \times (8 + 9). \\
8096 &= (1 + 2 \times 3)^4 + 5 \times 67 \times (8 + 9). \\
8097 &= 1 + 2^3 \times (4 + (56 + 7 \times 8) \times 9). \\
8098 &= 1 \times 2 \times (3 + (4 + 5 \times 6) \times 7 \times (8 + 9)). \\
8099 &= (12 + 3 + 4 + 5 + 67) \times 89. \\
8100 &= 1 \times 2 \times 3 \times 45 \times (6 + 7 + 8 + 9). \\
8101 &= 1 + 2 \times 3 \times 45 \times (6 + 7 + 8 + 9). \\
8102 &= 1 \times 2 \times (3 + 4^5 + 6 \times 7 \times 8 \times 9). \\
8103 &= 1 + 2 \times (3 + 4^5 + 6 \times 7 \times 8 \times 9). \\
8104 &= 1 \times 2^3 \times (4 \times 56 + 789). \\
8105 &= 1 + 2^3 \times (4 \times 56 + 789). \\
8106 &= (1 + 2 \times 3) \times (456 + 78 \times 9). \\
8107 &= 1 + 2 \times 3 + (4 + 56) \times (7 + 8) \times 9. \\
8108 &= 1 \times 2^3 + (4 + 56) \times (7 + 8) \times 9. \\
8109 &= (1 \times 2^3 + 4 + 5) \times (6 \times 78 + 9). \\
8110 &= 1 + (2^3 + 4 + 5) \times (6 \times 78 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8041 &= (98 \times 7 + 654) \times 3 \times 2 + 1. \\
8042 &= 98 + (7 + 6 \times 54) \times (3 + 21). \\
8043 &= 9 \times (8 + 7) + 6^5 + 4 \times (32 + 1). \\
8044 &= 9 \times 876 + 54 \times 3 - 2 \times 1. \\
8045 &= 9 \times 876 + 54 \times 3 - 2 + 1. \\
8046 &= (9 + 876 + 5 + 4) \times 3^2 \times 1. \\
8047 &= 9 \times 8 + 7654 + 321. \\
8048 &= 9 \times 876 + 54 \times 3 + 2 \times 1. \\
8049 &= 9 \times 876 + 54 \times 3 + 2 + 1. \\
8050 &= (9 + 87 + 65) \times ((4 + 3)^2 + 1). \\
8051 &= 9 + 8 + 7 + 6 + (5 \times 4)^3 + 21. \\
8052 &= 9 + 8 + 7 + 6^5 + 4 \times 3 \times 21. \\
8053 &= 98 - 7 \times 6 + (5 \times 4)^3 - 2 - 1. \\
8054 &= 9 - 8 \times 7 + 6^5 + 4 + 321. \\
8055 &= (9 \times 8 + 76) \times 54 + 3 \times 21. \\
8056 &= (98 + 76 + 5) \times (43 + 2) + 1. \\
8057 &= 98 \times (7 + 6 + 5 + 4^3) + 21. \\
8058 &= 9 \times (876 + 5) + 4 \times 32 + 1. \\
8059 &= (9 \times 8 + 7) \times (6 + (5 + 43) \times 2) + 1. \\
8060 &= (9 + 8) \times 7 \times 65 + 4 + 321. \\
8061 &= 9 \times (876 + 5) + 4 \times (32 + 1). \\
8062 &= 9 + 8 + 7 \times 6 + (5 \times 4)^3 + 2 + 1. \\
8063 &= 9 \times 876 + 5 \times 4 \times 3^2 - 1. \\
8064 &= 9 \times 8 \times 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
8065 &= 9 \times 876 + 5 \times 4 \times 3^2 + 1. \\
8066 &= 98 \times (76 + 5) + 4 \times 32 \times 1. \\
8067 &= 9 \times 876 + 54 \times 3 + 21. \\
8068 &= 98 \times 76 + 5^4 - 3 - 2 \times 1. \\
8069 &= 9 \times 876 + 5 \times (4 + 32 + 1). \\
8070 &= 9 \times (876 + 5 \times 4) + 3 \times 2 \times 1. \\
8071 &= 9 \times (876 + 5 \times 4) + 3 \times 2 + 1. \\
8072 &= 98 \times 76 + 5^4 - 3 + 2 \times 1. \\
8073 &= 98 + 7654 + 321. \\
8074 &= 9 + 8 \times 7 + 6 + (5 \times 4)^3 + 2 + 1. \\
8075 &= (9 + 8 \times 7 + 6 \times 5) \times (4^3 + 21). \\
8076 &= 9 \times (876 + 5) + (4 + 3) \times 21. \\
8077 &= ((9 + 8) \times 76 + 54) \times 3 \times 2 + 1. \\
8078 &= 98 \times 76 + 5^4 + 3 + 2 \times 1. \\
8079 &= 98 \times 76 + 5^4 + 3 + 2 + 1. \\
8080 &= 98 \times 76 + 5^4 + 3 \times 2 + 1. \\
8081 &= 9 \times 876 + 5 + 4^3 \times (2 + 1). \\
8082 &= 987 \times 6 + 5 \times 432 \times 1. \\
8083 &= 987 \times 6 + 5 \times 432 + 1. \\
8084 &= 9 \times 876 + 5 \times 4 \times (3^2 + 1). \\
8085 &= (9 + 87 + 6 \times 5) \times 4^3 + 21. \\
8086 &= (98 + 7) \times (6 + 5 + 4^3 + 2) + 1. \\
8087 &= 987 \times 6 + 5 \times (432 + 1). \\
8088 &= 98 \times 76 + 5 \times 4^3 \times 2 \times 1. \\
8089 &= 98 \times 76 + 5 \times 4 \times 32 + 1. \\
8090 &= (9 + 87) \times 65 + 43^2 + 1. \\
8091 &= (9 + 8 + 76) \times (54 + 32 + 1). \\
8092 &= 9 + 8 \times 7 + 6 + (5 \times 4)^3 + 21. \\
8093 &= 9 + 8 \times 7 + 6^5 + 4 \times 3 \times 21. \\
8094 &= (9 + 8 \times 7 + 6) \times (54 + 3) \times 2 \times 1. \\
8095 &= 9 + 8 + 76 + (5 \times 4)^3 + 2 \times 1. \\
8096 &= 9 \times (876 + 5 \times 4) + 32 \times 1. \\
8097 &= 98 \times 76 + 5^4 + 3 + 21. \\
8098 &= 98 \times (7 + 6) \times 5 + (4 \times 3)^{(2+1)}. \\
8099 &= 98 + (7 + 6 \times 5 \times 4) \times 3 \times 21. \\
8100 &= 9 \times 87 \times 6 + 54 \times 3 \times 21. \\
8101 &= 9 \times 876 + 5 \times 43 + 2 \times 1. \\
8102 &= 9 \times 876 + 5 \times 43 + 2 + 1. \\
8103 &= 9 \times (8 + 7) + 6^5 + 4^3 \times (2 + 1). \\
8104 &= 9 + 87 + 6 + (5 \times 4)^3 + 2 \times 1. \\
8105 &= 98 \times 76 + 5^4 + 32 \times 1. \\
8106 &= 98 \times 76 + 5^4 + 32 + 1. \\
8107 &= 9 \times 8 + 7 + 6^5 + 4 \times 3 \times 21. \\
8108 &= 98 \times 76 + 5 \times 4 \times (32 + 1). \\
8109 &= (98 + 7) \times 65 + 4 \times 321. \\
8110 &= 9 \times 876 + 5 \times (43 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8111 &= 1 \times 2 + (3 \times 4 + 5) \times (6 \times 78 + 9). \\
8112 &= 1 \times 2 \times 3 \times 4 \times 5 \times 67 + 8 \times 9. \\
8113 &= 1 + 2 \times 3 \times 4 \times 5 \times 67 + 8 \times 9. \\
8114 &= 1 \times 2 \times (3 + 4 + 5 \times 6 \times (7 + 8) \times 9). \\
8115 &= 12 + 3 + (4 + 56) \times (7 + 8) \times 9. \\
8116 &= 1 \times 2 \times ((3 + 4) \times 567 + 89). \\
8117 &= 1 + 2 \times ((3 + 4) \times 567 + 89). \\
8118 &= 12^3 \times 4 + (56 + 78) \times 9. \\
8119 &= 1 \times 23 \times (4 \times (5 \times 6 + 7 \times 8) + 9). \\
8120 &= 1 + 23 \times (4 \times (5 \times 6 + 7 \times 8) + 9). \\
8121 &= (12 + 3^4 + 5 + 6) \times 78 + 9. \\
8122 &= 1 + 2 \times (34 + 5) \times (6 + 7) \times 8 + 9. \\
8123 &= 1 \times 23 + (4 + 56) \times (7 + 8) \times 9. \\
8124 &= 12 \times (3 + 45 + 6 + 7 \times 89). \\
8125 &= (1 + 2 \times 34 + 56) \times (7 \times 8 + 9). \\
8126 &= (12 + 3 + 456 + 7) \times (8 + 9). \\
8127 &= 123 \times (45 + 6 + 7 + 8) + 9. \\
8128 &= 1 + (23 + 4 \times 5) \times (6 + 7 + 8) \times 9. \\
8129 &= 1 \times 2 \times 3 \times 4 \times 5 \times 67 + 89. \\
8130 &= 1 + 2 \times 3 \times 4 \times 5 \times 67 + 89. \\
8131 &= 1 + 2 \times ((34 + 5) \times (6 + 7) \times 8 + 9). \\
8132 &= -1 + 2^3 \times 4^5 - 6 \times 7 - 8 - 9. \\
8133 &= 12345 - 6 \times 78 \times 9. \\
8134 &= 1 \times (2 + 3^4) \times (5 + 6 + 78 + 9). \\
8135 &= 1 + (2 + 3^4) \times (5 + 6 + 78 + 9). \\
8136 &= (1234 + 5) \times 6 + 78 \times 9. \\
8137 &= 1 \times 2^3 \times (4 \times 5 \times 6 + 7) \times 8 + 9. \\
8138 &= 1 + 2^3 \times (4 \times 5 \times 6 + 7) \times 8 + 9. \\
8139 &= 12 + (3 + (4 + 56) \times (7 + 8)) \times 9. \\
8140 &= 12^3 + 4 + (5 + 67) \times 89. \\
8141 &= 1 + (2 + 3) \times 4 \times (5 \times 67 + 8 \times 9). \\
8142 &= 12 \times 34 \times 5 + 678 \times 9. \\
8143 &= 12 \times 3 \times 4 \times 56 + 7 + 8 \times 9. \\
8144 &= 1 \times (2 + 3) \times 4^5 + 6 \times 7 \times 8 \times 9. \\
8145 &= (12 + 3) \times (456 + 78 + 9). \\
8146 &= 1^2 + (3 + 4 + 5) \times 678 + 9. \\
8147 &= 1 \times 2 + (3 + 4 + 5) \times 678 + 9. \\
8148 &= 1 + 2 + (3 + 4 + 5) \times 678 + 9. \\
8149 &= 1^2 + 3 \times 4 \times (56 + 7 \times 89). \\
8150 &= 1 \times 2 + 3 \times 4 \times (56 + 7 \times 89). \\
8151 &= 12 \times 3 \times 4 \times 56 + 78 + 9. \\
8152 &= 1 + 2^3 \times 4^5 - 6 \times 7 - 8 + 9. \\
8153 &= (1 + 23) \times (4 + 5 \times 67) + 8 + 9. \\
8154 &= 12^3 + (4 + 5) \times 6 \times 7 \times (8 + 9). \\
8155 &= (1 + 2)(3 + 4) + 5 + 67 \times 89. \\
8156 &= 1 \times 2 + 3 \times (4 \times 56 + 78) \times 9. \\
8157 &= 12 + (3 + 4 + 5) \times 678 + 9. \\
8158 &= 1 \times 2 \times (3456 + 7 \times 89). \\
8159 &= 1 + 2 \times (3456 + 7 \times 89). \\
8160 &= (123 + 4^5 + 6) \times 7 + 89. \\
8161 &= 1 + 2 \times (3 + 45) \times (6 + 7 + 8 \times 9). \\
8162 &= 1 \times 2 + 3 \times 4 \times (5 + (67 + 8) \times 9). \\
8163 &= 1 + 2 + 3 \times 4 \times (5 + (67 + 8) \times 9). \\
8164 &= 1^2 + 3 \times ((4 + 5 \times 67) \times 8 + 9). \\
8165 &= 12 \times (3 \times 4 \times 56 + 7) + 8 + 9. \\
8166 &= 12 + 3 \times (4 \times 56 + 78) \times 9. \\
8167 &= 1 + 2 \times (345 + 6 \times 7 \times 89). \\
8168 &= 1 \times 2 \times (34 + 5 \times 6 \times (7 + 8) \times 9). \\
8169 &= 123 \times (4 + 56) + 789. \\
8170 &= 1 + 2 \times 3 \times (4^5 + 6 \times 7 \times 8) + 9. \\
8171 &= 1 + 2^3 \times 4^5 + 67 - 89. \\
8172 &= 1 \times (2 + 34) \times (5 \times 6 \times 7 + 8 + 9). \\
8173 &= 1 + (2 + 34) \times (5 \times 6 \times 7 + 8 + 9). \\
8174 &= 1 \times 2^3 \times 4^5 + 6 - 7 - 8 - 9. \\
8175 &= (1 + 2 + 3 + 4 + 5) \times (67 \times 8 + 9). \\
8176 &= 1 \times 2 \times (3 + 4) \times (567 + 8 + 9). \\
8177 &= 1 + 2 \times (3 + 4) \times (567 + 8 + 9). \\
8178 &= (1 \times 2 + 3^4 + 5 + 6) \times (78 + 9). \\
8179 &= 1 + 2 \times (3 + 4 \times (5 + 6)) \times (78 + 9). \\
8180 &= 1 \times (2 + 3) \times 4 \times (56 \times 7 + 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8111 &= 9 + (8 + 7 \times 6) \times 54 \times 3 + 2 \times 1. \\
8112 &= 9 + (8 + 7 \times 6) \times 54 \times 3 + 2 + 1. \\
8113 &= 98 + 7 + 6 + (5 \times 4)^3 + 2 \times 1. \\
8114 &= 9 \times 876 + 5 \times (43 + 2 + 1). \\
8115 &= (9 \times (8 + 7) \times 6 \times 5 + 4 + 3) \times 2 + 1. \\
8116 &= 9 + (8 \times 7 + 65) \times (4 + 3 \times 21). \\
8117 &= 9 \times 8 + 7 \times 6 + (5 \times 4)^3 + 2 + 1. \\
8118 &= 9 \times (876 + 5 \times 4 + 3 + 2 + 1). \\
8119 &= 9 \times (876 + 5 \times 4 + 3 \times 2) + 1. \\
8120 &= 9 \times 876 + 5 \times 43 + 21. \\
8121 &= (9 + 8 \times 7) \times 6 \times 5 \times 4 + 321. \\
8122 &= (98 \times 7 + (6 + 5 + 4)^3) \times 2 \times 1. \\
8123 &= 9 + 87 + 6 + (5 \times 4)^3 + 21. \\
8124 &= 9 + 87 + 6^5 + 4 \times 3 \times 21. \\
8125 &= 9 + 8 + 7 + 6^5 + 4 + 321. \\
8126 &= (9 + 8 \times 7) \times (6 \times 5 \times 4 + 3 + 2) + 1. \\
8127 &= 9 \times (876 + 5 \times 4) + 3 \times 21. \\
8128 &= (9 \times 87 + 6 \times 5 \times 4) \times 3^2 + 1. \\
8129 &= 9 \times 876 + 5 \times (4 + 3)^2 \times 1. \\
8130 &= 9 + (8 + 7 \times 6) \times 54 \times 3 + 21. \\
8131 &= (9 \times 87 + 6 \times 5) \times (4 + 3 \times 2) + 1. \\
8132 &= 98 + 7 + 6 + (5 \times 4)^3 + 21. \\
8133 &= 98 + 7 + 6^5 + 4 \times 3 \times 21. \\
8134 &= 98 \times (7 + 65 + 4 + 3 \times 2 + 1). \\
8135 &= 9 \times 8 + 7 \times 6 + (5 \times 4)^3 + 21. \\
8136 &= 98 \times 76 + 5^4 + 3 \times 21. \\
8137 &= 9 \times (8 + 76 \times 5 + 4^3) \times 2 + 1. \\
8138 &= 9 + ((8 + 7 \times 6) \times 5 + 4) \times 32 + 1. \\
8139 &= 9 \times 87 + 6 \times ((5 \times (4 + 3))^2 + 1). \\
8140 &= (9 \times 8 + 76) \times 5 \times (4 + 3 \times 2 + 1). \\
8141 &= 9 \times 876 + 5 + 4 \times 3 \times 21. \\
8142 &= 98 + 7 \times 6 + (5 \times 4)^3 + 2 \times 1. \\
8143 &= 98 + 7 \times 6 + (5 \times 4)^3 + 2 + 1. \\
8144 &= 9 \times 8 \times 7 \times 6 + 5 \times 4(3 + 2) \times 1. \\
8145 &= 9 + 8 \times (765 + 4 \times 3 \times 21). \\
8146 &= (9 + 876 + 5 \times 4) \times 3^2 + 1. \\
8147 &= (9 + 8) \times 7 + 6^5 + 4 \times 3 \times 21. \\
8148 &= 9 + 8 + (7 + 6) \times 5^4 + 3 + 2 + 1. \\
8149 &= 9 + 8 + (7 + 6) \times 5^4 + 3 \times 2 + 1. \\
8150 &= 9 \times 8 + 76 + (5 \times 4)^3 + 2 \times 1. \\
8151 &= 9 + 8 + (7 + 6) \times 5^4 + 3^2 \times 1. \\
8152 &= 9 + 8 + (7 + 6) \times 5^4 + 3^2 + 1. \\
8153 &= 9 \times 8 \times 7 + 6^5 - 4 \times 32 + 1. \\
8154 &= 9 \times 876 + 54 \times (3 + 2 \times 1). \\
8155 &= 9 \times 876 + 54 \times (3 + 2) + 1. \\
8156 &= 98 \times 76 + (5 + 4)^3 - 21. \\
8157 &= 9 + (8 + 76 \times 5) \times (4 + 3) \times (2 + 1). \\
8158 &= 9 \times 8 - 7 + 6^5 - 4 + 321. \\
8159 &= 9 + 8 \times 7 + 6 \times (5 + 4^3 \times 21). \\
8160 &= (9 + 8 + 7 \times (6 \times 5 + 4)) \times 32 \times 1. \\
8161 &= 98 + 7 \times 6 + (5 \times 4)^3 + 21. \\
8162 &= 9 \times (8 + 7) + 6 + (5 \times 4)^3 + 21. \\
8163 &= 9 \times (8 + 7) + 6^5 + 4 \times 3 \times 21. \\
8164 &= 9 \times (8 + (7 + 6) \times (5 + 4^3) + 2) + 1. \\
8165 &= (9 + 8 + 7) \times 6 + (5 \times 4)^3 + 21. \\
8166 &= 9 + 8 \times 7 + 6^5 + 4 + 321. \\
8167 &= (9 + 8) \times 7 \times 65 + 432 \times 1. \\
8168 &= (9 + 8) \times 7 \times 65 + 432 + 1. \\
8169 &= (98 + 76 + 5 \times 43) \times 21. \\
8170 &= (9 + 8 \times 7 + 6 \times 5) \times 43 \times 2 \times 1. \\
8171 &= (9 + 8 \times 7 + 6 \times 5) \times 43 \times 2 + 1. \\
8172 &= 9 \times 876 + (5 + 4) \times 32 \times 1. \\
8173 &= 9 \times 876 + (5 + 4) \times 32 + 1. \\
8174 &= 9 \times 876 + (5 + 4 \times 3)^2 + 1. \\
8175 &= 9 + 8 + (7 + 6) \times 5^4 + 32 + 1. \\
8176 &= 98 + 76 + (5 \times 4)^3 + 2 \times 1. \\
8177 &= 98 + 76 + (5 \times 4)^3 + 2 + 1. \\
8178 &= 9 + (8 + 7 \times 6 \times (5 + 4) + 3) \times 21. \\
8179 &= 98 \times 76 + (5 + 4)^3 + 2 \times 1. \\
8180 &= 9 \times 8 + 7 + 6^5 + 4 + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8181 &= 12 \times (345 + 6 \times 7 \times 8) + 9. \\
8182 &= 1 \times 2 - 3 - 4^5 \times (6 - 7) \times 8 - 9. \\
8183 &= 12 \times 3 \times 4 \times 56 + 7 \times (8 + 9). \\
8184 &= (1^2 + 3)^4 \times 5 \times 6 + 7 \times 8 \times 9. \\
8185 &= 1 + (2 + 3^4 + 5) \times (6 + 78 + 9). \\
8186 &= 1 + (2 + 3)^4 + 56 \times (7 + 8) \times 9. \\
8187 &= 123 + (45 + 67) \times 8 \times 9. \\
8188 &= 1 \times 23 \times 4 \times (5 + 67 + 8 + 9). \\
8189 &= 1 + 23 \times 4 \times (5 + 67 + 8 + 9). \\
8190 &= 1 \times 234 \times (5 + 6 + 7 + 8 + 9). \\
8191 &= 1 + 234 \times (5 + 6 + 7 + 8 + 9). \\
8192 &= 1 \times 2^{(3+4)} \times (5 + 6 \times 7 + 8 + 9). \\
8193 &= 1 \times 2 \times 3 \times 4 \times (5 + 6 \times 7 \times 8) + 9. \\
8194 &= 1 + 2 \times 3 \times 4 \times (5 + 6 \times 7 \times 8) + 9. \\
8195 &= 1 + 2 \times ((34 + 5) \times 6 + 7) \times (8 + 9). \\
8196 &= (1 + 2 \times 3 \times 4 \times 5) \times 67 + 89. \\
8197 &= 1 \times 23 \times 4 \times (5 + 6 + 78) + 9. \\
8198 &= 1 + 23 \times 4 \times (5 + 6 + 78) + 9. \\
8199 &= 12 \times 3 \times 4 \times 56 + (7 + 8) \times 9. \\
8200 &= 1 + 2 \times (3 + 45 \times 6) \times (7 + 8) + 9. \\
8201 &= 1 + (2 + 3) \times (4 \times 56 \times 7 + 8 \times 9). \\
8202 &= 1 \times 2 \times (3 \times 4 \times (5 + 6 \times 7 \times 8) + 9). \\
8203 &= 1 + 2 \times (3 \times 4 \times (5 + 6 \times 7 \times 8) + 9). \\
8204 &= 1 \times 2^3 \times 4^5 + 6 + 7 + 8 - 9. \\
8205 &= 1^2 \times 3 \times 4 \times (5 + 678) + 9. \\
8206 &= 1 + (2^3 + 4) \times (5 + 678) + 9. \\
8207 &= 1 \times 2 + 3 \times 4 \times (5 + 678) + 9. \\
8208 &= 12^3 + 45 \times 6 \times (7 + 8 + 9). \\
8209 &= 1 + 2^3 \times (4 + 5) \times (6 \times 7 + 8 \times 9). \\
8210 &= 1 \times 2^3 \times 4^5 - 6 + 7 + 8 + 9. \\
8211 &= 1 \times 23 \times (45 \times 6 + 78 + 9). \\
8212 &= 1 + 23 \times (45 \times 6 + 78 + 9). \\
8213 &= -1 + 2^3 \times 4^5 - 67 + 89. \\
8214 &= 123 \times 4 + (5 + 6) \times 78 \times 9. \\
8215 &= 1 + 2 \times 3 \times (4^5 + 6 \times 7 \times 8 + 9). \\
8216 &= (12 + 3^4 + 5 + 6) \times (7 + 8 \times 9). \\
8217 &= 12 + 3 \times 4 \times (5 + 678) + 9. \\
8218 &= 1 \times 2 \times (3 \times 4 \times 5 \times 67 + 89). \\
8219 &= 1 + 2 \times (3 \times 4 \times 5 \times 67 + 89). \\
8220 &= 12 \times (3 \times 4 \times 56 + 7) + 8 \times 9. \\
8221 &= 12^3 \times 4 + (5 + 6) \times 7 \times (8 + 9). \\
8222 &= 1 \times 2^3 \times 4^5 + 6 + 7 + 8 + 9. \\
8223 &= 1 + 2^3 \times 4^5 + 6 + 7 + 8 + 9. \\
8224 &= 1^2 + 3 \times (4 \times (5 + 678) + 9). \\
8225 &= (1 + 23) \times (4 + 5 \times 67) + 89. \\
8226 &= 1 + 2 + 3 \times (4 \times (5 + 678) + 9). \\
8227 &= 1 \times 2 + (34 \times 5 \times 6 + 7) \times 8 + 9. \\
8228 &= 1 \times 23 \times (45 + 6) \times 7 + 8 + 9. \\
8229 &= 1 + 23 \times (45 + 6) \times 7 + 8 + 9. \\
8230 &= 1 \times 2^3 \times (4^5 + 6) + 7 - 8 - 9. \\
8231 &= 1 + 2^3 \times (4^5 + 6) + 7 - 8 - 9. \\
8232 &= 12 \times (3 + 4 + 56 + 7 \times 89). \\
8233 &= (1^2 + 34 \times 5 \times 6 + 7) \times 8 + 9. \\
8234 &= 1 + 2^3 \times 4^5 - 6 + 7 \times 8 - 9. \\
8235 &= (1 + 2) \times (3 + 4 \times 56 + 78) \times 9. \\
8236 &= 1 + (23 + 4) \times ((5 \times 6 + 7) \times 8 + 9). \\
8237 &= 12 \times (3 \times 4 \times 56 + 7) + 89. \\
8238 &= 1 \times 2 \times 3 \times (4 \times (5 + 6 \times 7 \times 8) + 9). \\
8239 &= 1 + 2 \times 3 \times (4 \times (5 + 6 \times 7 \times 8) + 9). \\
8240 &= (1^2 + 3) \times 4 \times (5 + 6 + 7 \times 8 \times 9). \\
8241 &= 1 \times 2 \times 3 \times 4 \times (5 \times 67 + 8) + 9. \\
8242 &= 1 + 2 \times 3 \times 4 \times (5 \times 67 + 8) + 9. \\
8243 &= 1 + 2^3 \times 4^5 + 67 - 8 - 9. \\
8244 &= 12 \times (34 + 5 \times 6 + 7 \times 89). \\
8245 &= (12 + 3^4 + 56 \times 7) \times (8 + 9). \\
8246 &= 1 \times 2 + (3 + 4 + 5) \times (678 + 9). \\
8247 &= 1 + 2 + (3 + 4 + 5) \times (678 + 9). \\
8248 &= 1 \times 2^3 \times (4^5 + 6) + 7 - 8 + 9. \\
8249 &= (1 \times 234 \times 5 + 6) \times 7 + 8 + 9. \\
8250 &= (1 + 2^3)^4 + 5 \times 6 \times 7 \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8181 &= 9 \times (876 + 5) + 4 \times 3 \times 21. \\
8182 &= (9 + (8 + 7) \times (6 + 54)) \times 3^2 + 1. \\
8183 &= 98 \times 76 + 5 \times (4 + 3) \times 21. \\
8184 &= 9 + 8 + (7 + 6) \times (5^4 + 3) + 2 + 1. \\
8185 &= 9 + 8 \times (76 + 5^4 + 321). \\
8186 &= 9 + 8 \times 7 \times (6 \times 5 + 43) \times 2 + 1. \\
8187 &= 9 + 87 \times (6 \times 5 + 43 + 21). \\
8188 &= 9 + 87 \times ((6 + 5) \times 4 + 3) \times 2 + 1. \\
8189 &= 9 + 87 \times (6 \times 5 + 4^3) + 2 \times 1. \\
8190 &= (9 + 87 + 6 \times 5 + 4) \times 3 \times 21. \\
8191 &= (98 + 7) \times (65 + 4 + 3^2) + 1. \\
8192 &= 98 \times 7 + (6 \times 5^4 + 3) \times 2 \times 1. \\
8193 &= (9 + 8 + 7 \times 6 + 5) \times 4 \times 32 + 1. \\
8194 &= 9 + (8 \times 7 \times 6 + 5) \times 4 \times 3 \times 2 + 1. \\
8195 &= 98 + 76 + (5 \times 4)^3 + 21. \\
8196 &= (9 \times 8 + 76 \times 5 \times (4 + 3)) \times (2 + 1). \\
8197 &= 9 + 87 + 6^5 + 4 + 321. \\
8198 &= 98 \times 76 + (5 + 4)^3 + 21. \\
8199 &= 98 + 7 + 6 \times (5 + 4^3 \times 21). \\
8200 &= 9 + (8 + 7) \times 6 \times (5 + 43 \times 2) + 1. \\
8201 &= (9 + 8 + 7 \times 6) \times ((5 + 4^3) \times 2 + 1). \\
8202 &= 9 \times 8 + (7 + 6) \times 5^4 + 3 + 2 \times 1. \\
8203 &= 9 \times 8 + (7 + 6) \times 5^4 + 3 + 2 + 1. \\
8204 &= 9 \times 876 + 5 \times (43 + 21). \\
8205 &= (987 + 654) \times (3 + 2) \times 1. \\
8206 &= 98 + 7 + 6^5 + 4 + 321. \\
8207 &= 9 \times 876 + 5 \times 4^3 + 2 + 1. \\
8208 &= 9 \times 876 + 54 \times 3 \times 2 \times 1. \\
8209 &= 9 \times 876 + 54 \times 3 \times 2 + 1. \\
8210 &= 9 \times (8 + 7 + 6) + (5 \times 4)^3 + 21. \\
8211 &= (98 + 7) \times (6 + 5 \times 4) \times 3 + 21. \\
8212 &= (9 + 8) \times 7 \times (6 + 54 + 3^2) + 1. \\
8213 &= (9 + 8) \times 7 + 6 \times (5 + 4^3 \times 21). \\
8214 &= 9 \times 876 + 5 + 4 + 321. \\
8215 &= 9 \times 876 + 5 \times (4^3 + 2) + 1. \\
8216 &= (9 + 8) \times 7 \times (65 + 4) + 3 + 2 \times 1. \\
8217 &= (9 + 8) \times 7 \times (65 + 4) + 3 \times 2 \times 1. \\
8218 &= (9 + 8) \times 7 \times (65 + 4) + 3 \times 2 + 1. \\
8219 &= 98 \times (7 + 6) \times 5 + 43^2 \times 1. \\
8220 &= (9 + 8) \times 7 + 6^5 + 4 + 321. \\
8221 &= 9 \times 8 + (7 + 6) \times 5^4 + 3 + 21. \\
8222 &= 98 \times 7 + 6 \times (5^4 + 3) \times 2 \times 1. \\
8223 &= 98 \times 7 + 6 \times (5^4 + 3) \times 2 + 1. \\
8224 &= 98 + 7 + 6^5 + (4 + 3)^{(2+1)}. \\
8225 &= 9 \times 876 + 5 \times 4 + 321. \\
8226 &= 987 \times 6 + (5 + 43)^2 \times 1. \\
8227 &= 987 \times 6 + (5 + 43)^2 + 1. \\
8228 &= 98 + (7 + 6) \times 5^4 + 3 + 2 \times 1. \\
8229 &= 98 + (7 + 6) \times 5^4 + 3 + 2 + 1. \\
8230 &= 98 + (7 + 6) \times 5^4 + 3 \times 2 + 1. \\
8231 &= 9 + 8 + (76 \times 54 + 3) \times 2 \times 1. \\
8232 &= 9 + 8 + 7 + 6^5 + 432 \times 1. \\
8233 &= 9 + 8 + 7 + 6^5 + 432 + 1. \\
8234 &= 98 \times (7 + 65 + 4 \times 3) + 2 \times 1. \\
8235 &= (9 \times 87 + 654 \times 3) \times (2 + 1). \\
8236 &= 9 \times (8 + 7) + 6^5 + 4 + 321. \\
8237 &= 9 \times 8 \times 7 + 6^5 - 4^3 + 21. \\
8238 &= 9 \times 8 \times 7 + 6 \times (5 + 4 \times 321). \\
8239 &= 9 + (8 + 76 \times 54 + 3) \times 2 \times 1. \\
8240 &= 9 + (8 + 76 \times 54 + 3) \times 2 + 1. \\
8241 &= 9 \times 876 + (5 + 4 \times 3) \times 21. \\
8242 &= (9 + 8) \times (7 + 6) + (5 \times 4)^3 + 21. \\
8243 &= (9 + 8) \times 7 \times (65 + 4) + 32 \times 1. \\
8244 &= (9 + 8) \times 7 \times (65 + 4) + 32 + 1. \\
8245 &= (9 \times 8 + 7 + 6) \times ((5 + 43) \times 2 + 1). \\
8246 &= 98 \times 7 + 6 \times 5 \times 4 \times 3 \times 21. \\
8247 &= 98 + (7 + 6) \times 5^4 + 3 + 21. \\
8248 &= (9 + 8 + 76 \times 54 + 3) \times 2 \times 1. \\
8249 &= (9 + 8 + 76 \times 54 + 3) \times 2 + 1. \\
8250 &= 98 + (7 + 6) \times 5^4 + 3^{(2+1)}.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8251 &= 1 \times 2^3 \times 4^5 + 6 \times 7 + 8 + 9. \\
8252 &= 1 + 2^3 \times 4^5 + 6 \times 7 + 8 + 9. \\
8253 &= (1 \times 234 + 5 + 678) \times 9. \\
8254 &= 1 + (234 + 5 + 678) \times 9. \\
8255 &= (1 + 2 \times 3 + 4 \times 5 \times 6) \times (7 \times 8 + 9). \\
8256 &= 12 + (3 + 4 + 5) \times (678 + 9). \\
8257 &= 1 \times 23 \times (4 + 5 \times (6 + 7 \times 8 + 9)). \\
8258 &= 123 \times (4 + 56 + 7) + 8 + 9. \\
8259 &= (1 + 2^3 \times 4) \times 5 \times (6 \times 7 + 8) + 9. \\
8260 &= (1 + 2 \times 3) \times (4^5 + 67 + 89). \\
8261 &= 1 + 2^3 \times 4^5 + 67 - 8 + 9. \\
8262 &= (1 + 234 + 5 + 678) \times 9. \\
8263 &= 1 \times 2^3 \times 4^5 + 6 + 7 \times 8 + 9. \\
8264 &= 1 + 2^3 \times 4^5 + 6 + 7 \times 8 + 9. \\
8265 &= 1 + 2^3 \times (4^5 + 6) + 7 + 8 + 9. \\
8266 &= 1 + (2 + 3) \times (4^5 + 6 + 7 \times 89). \\
8267 &= 1 \times 2^3 \times 4^5 + 6 + 78 - 9. \\
8268 &= 12 \times (3 \times 4 \times 5 + 6 + 7 \times 89). \\
8269 &= 1 + (2^3 + 45) \times (67 + 89). \\
8270 &= 1 \times 2 \times (3 + 4^{(5-6+7)}) + 8 \times 9. \\
8271 &= (1 + 2 \times (3 + 4)) \times 5 \times (6 + 7 + 8) \times 9. \\
8272 &= (123 + 4) \times 5 \times (6 + 7) + 8 + 9. \\
8273 &= ((1^2 + 34 \times 5) \times 6 + 7) \times 8 + 9. \\
8274 &= 1 + 2^3 \times 4^5 - 6 + 78 + 9. \\
8275 &= (1 + (2 + 3)^4 + 5) \times (6 + 7) + 8 \times 9. \\
8276 &= 1 \times 2^3 \times 4^5 + 67 + 8 + 9. \\
8277 &= 1 + 2^3 \times 4^5 + 67 + 8 + 9. \\
8278 &= 1 + 2^3 \times 4^5 + 6 + 7 + 8 \times 9. \\
8279 &= (1 + 23 + 456 + 7) \times (8 + 9). \\
8280 &= 12 \times (34 + 567 + 89). \\
8281 &= 1 + 23 \times 4 \times (5 + 6 + 7 + 8 \times 9). \\
8282 &= 1 \times 2 + (3 + 45 + 67) \times 8 \times 9. \\
8283 &= 1 \times 23 \times (45 + 6) \times 7 + 8 \times 9. \\
8284 &= 1 + 23 \times (45 + 6) \times 7 + 8 \times 9. \\
8285 &= 1 \times 2^3 \times 4^5 + 6 + 78 + 9. \\
8286 &= 1 + 2^3 \times 4^5 + 6 + 78 + 9. \\
8287 &= 1 + 2 \times (3^4 + 5 + 6 \times 7 \times 89). \\
8288 &= (1 + 2 \times 3) \times (45 + 67 \times (8 + 9)). \\
8289 &= ((1 + 2)^3 \times (4 + 5) + 678) \times 9. \\
8290 &= (1 + 23 \times (45 + 6)) \times 7 + 8 \times 9. \\
8291 &= 1 \times 2^3 \times 4^5 + 6 \times (7 + 8) + 9. \\
8292 &= 12 \times (3 \times 4 + 56 + 7 \times 89). \\
8293 &= -1 + 2^3 \times 4^5 + 6 + 7 + 89. \\
8294 &= 1 \times 2^3 \times 4^5 + 6 + 7 + 89. \\
8295 &= 1 + 2^3 \times 4^5 + 6 + 7 + 89. \\
8296 &= 1 \times 2 \times (34 + 5 \times 6 \times 7) \times (8 + 9). \\
8297 &= (1 \times 23 \times 4 + 56) \times 7 \times 8 + 9. \\
8298 &= 1 + (23 \times 4 + 56) \times 7 \times 8 + 9. \\
8299 &= 1 + (2 + (3 + 45 + 67) \times 8) \times 9. \\
8300 &= 1 \times 23 \times (45 + 6) \times 7 + 89. \\
8301 &= 1 + 23 \times (45 + 6) \times 7 + 89. \\
8302 &= -1 + 2^{(3 \times 4)} - 5 + 6 \times 78 \times 9. \\
8303 &= (1^2 + 3)^4 \times 5 \times 6 + 7 \times 89. \\
8304 &= 1^2 \times 3 \times 4 \times (5 + 678 + 9). \\
8305 &= 1^2 + 3 \times 4 \times (5 + 678 + 9). \\
8306 &= 1 \times 2^3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
8307 &= 1 + 2^3 \times 4^5 + 6 \times 7 + 8 \times 9. \\
8308 &= 1 \times 2345 + 67 \times 89. \\
8309 &= 1 + 2345 + 67 \times 89. \\
8310 &= (12 + 3) \times (4 + 5 + 67 \times 8 + 9). \\
8311 &= (1 + 234 \times 5 + 6) \times 7 + 8 \times 9. \\
8312 &= 1 + 2 \times 3 + (4^5 + 6 + 7) \times 8 + 9. \\
8313 &= 123 \times (4 + 56 + 7) + 8 \times 9. \\
8314 &= 1 + 2^{(3 \times 4)} + 5 + 6 \times 78 \times 9. \\
8315 &= (1 + 2)^3 \times 4 \times (5 + 6) \times 7 + 8 - 9. \\
8316 &= 1 \times 2 \times (3456 + 78 \times 9). \\
8317 &= 1 + 2 \times (3456 + 78 \times 9). \\
8318 &= 1 + 2^3 \times 4^5 + 6 + 7 \times (8 + 9). \\
8319 &= 1 \times 2^3 \times (4^5 + 6) + 7 + 8 \times 9. \\
8320 &= 12 + 3 + (4^5 + 6 + 7) \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8251 &= 9 \times 8 \times 7 + 6^5 + 4 - 32 - 1. \\
8252 &= 9 \times 8 \times 7 + 6^5 - 4 - 3 - 21. \\
8253 &= (98 + 7 + 6 + 5 \times 4) \times 3 \times 21. \\
8254 &= 9 \times (876 + 5) + 4 + 321. \\
8255 &= 98 + (7 + 6) \times 5^4 + 32 \times 1. \\
8256 &= 98 + (7 + 6) \times 5^4 + 32 + 1. \\
8257 &= (98 \times 7 \times 6 + 5 + 4 + 3) \times 2 + 1. \\
8258 &= 9 \times 8 \times 7 + 6^5 - 43 + 21. \\
8259 &= 9 \times 876 + 54 + 321. \\
8260 &= 9 \times 8 + (7 + 6) \times 5^4 + 3 \times 21. \\
8261 &= (98 \times 7 + 65) \times (4 + 3 \times 2 + 1). \\
8262 &= 9 \times (876 + 5 + 4 + 32 + 1). \\
8263 &= 98 \times (76 + 5) + 4 + 321. \\
8264 &= 98 + (7 + 6) \times (5^4 + 3) + 2 \times 1. \\
8265 &= 9 + (8 + 7) \times (6 + 543) + 21. \\
8266 &= (9 \times 87 + 6) \times 5 + 4321. \\
8267 &= (98 \times 7 \times 6 + 5 + 4 \times 3) \times 2 + 1. \\
8268 &= 9 \times 8 \times 7 + 6^5 - 4 - 3^2 + 1. \\
8269 &= 9 \times 8 \times 7 + 6^5 - 4 - 3 \times 2 - 1. \\
8270 &= (9 \times 87 + (6 + 5) \times 4) \times (3^2 + 1). \\
8271 &= 9 \times (8 + (7 + 6) \times 5 \times (4 + 3) \times 2 + 1). \\
8272 &= 9 + 8 + (7 + 6) \times (5^4 + 3^2 + 1). \\
8273 &= 9 + 8 \times 7 + 6^5 + 432 \times 1. \\
8274 &= 9 + 8 \times 7 + 6^5 + 432 + 1. \\
8275 &= 9 \times 8 + (7 + 6) \times (5^4 + 3 + 2 + 1). \\
8276 &= 9 \times 8 + (7 + 6) \times (5^4 + 3 \times 2) + 1. \\
8277 &= 9 \times 8 \times 7 + 6^5 + 4 - 3 \times 2 - 1. \\
8278 &= (98 \times 7 \times 6 + 5 \times 4 + 3) \times 2 \times 1. \\
8279 &= (98 \times 7 \times 6 + 5 \times 4 + 3) \times 2 + 1. \\
8280 &= 9 \times 8 \times 7 + 6 \times 54 \times (3 + 21). \\
8281 &= 98 \times (76 + 5) + (4 + 3)^{(2+1)}. \\
8282 &= 9 \times 8 \times (7 + 65 + 43) + 2 \times 1. \\
8283 &= 9 \times 8 \times (7 + 65 + 43) + 2 + 1. \\
8284 &= 9 \times 8 \times 7 + 6^5 + 4 + 3 - 2 - 1. \\
8285 &= 9 \times 8 \times 7 + 6^5 + 4 + 3 - 2 \times 1. \\
8286 &= 9 \times (876 + 5 + 4) + 321. \\
8287 &= 9 \times 8 + 7 + 6^5 + 432 \times 1. \\
8288 &= 9 \times 8 + 7 + 6^5 + 432 + 1. \\
8289 &= 9 \times 8 \times 7 + 6^5 + 4 + 3 + 2 \times 1. \\
8290 &= 9 \times 87 + (6 \times 5^4 + 3) \times 2 + 1. \\
8291 &= 9 \times 8 \times 7 + 6^5 + 4 + 3 \times 2 + 1. \\
8292 &= 9 \times 8 \times 7 + 6^5 + 4 + 3^2 - 1. \\
8293 &= 9 \times 8 \times 7 + 6^5 + 4 + 3^2 \times 1. \\
8294 &= 9 \times 8 \times 7 + 6^5 + 4 \times 3 + 2 \times 1. \\
8295 &= 9 \times 8 \times 7 + 6^5 + 4 \times 3 + 2 + 1. \\
8296 &= (9 + 8) \times (7 \times 65 + 4 \times 3 + 21). \\
8297 &= 9 + 8 \times (76 + 5 \times 4^3 \times (2 + 1)). \\
8298 &= 9 \times 87 \times 6 + (5 \times 4 \times 3)^2 \times 1. \\
8299 &= 9 \times 87 \times 6 + (5 \times 4 \times 3)^2 + 1. \\
8300 &= 9 \times 8 \times 7 + 6^5 + 4 \times (3 + 2) \times 1. \\
8301 &= 9 \times 8 \times (7 + 65 + 43) + 21. \\
8302 &= (98 \times 7 \times 6 + 5 \times (4 + 3)) \times 2 \times 1. \\
8303 &= (98 \times 7 \times 6 + 5 \times (4 + 3)) \times 2 + 1. \\
8304 &= 9 + 87 + 6^5 + 432 \times 1. \\
8305 &= 9 + 87 + 6^5 + 432 + 1. \\
8306 &= (98 \times 7 + 6) \times (5 + 4 + 3) + 2 \times 1. \\
8307 &= (98 \times 7 + 6) \times (5 + 4 + 3) + 2 + 1. \\
8308 &= 9 \times 8 \times 7 + 6^5 + 4 + 3 + 21. \\
8309 &= 9 \times 876 + 5 \times (4^3 + 21). \\
8310 &= (9 + 8) \times 76 \times 5 + 43^2 + 1. \\
8311 &= 9 \times 8 \times 7 + 6^5 + 4 + 3^{(2+1)}. \\
8312 &= 98 + (76 \times 54 + 3) \times 2 \times 1. \\
8313 &= 98 + 7 + 6^5 + 432 \times 1. \\
8314 &= 98 + 7 + 6^5 + 432 + 1. \\
8315 &= 9 \times 876 + 5 \times 43 \times 2 + 1. \\
8316 &= 9 \times 8 \times 7 + 6^5 + 4 + 32 \times 1. \\
8317 &= 9 \times 8 \times 7 + 6^5 + 4 + 32 + 1. \\
8318 &= 9 \times (876 + 5 + 43) + 2 \times 1. \\
8319 &= 9 \times 876 + 5 \times (43 \times 2 + 1). \\
8320 &= 9 \times 87 + 6 \times (5^4 + 3) \times 2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8321 &= 1 \times (234 \times 5 + 6) \times 7 + 89. \\
8322 &= 1 + (234 \times 5 + 6) \times 7 + 89. \\
8323 &= 1 \times 2^3 \times 4^5 + 6 \times 7 + 89. \\
8324 &= 1 + 2^3 \times 4^5 + 6 \times 7 + 89. \\
8325 &= (12 + 3) \times (45 + 6 + 7 \times 8 \times 9). \\
8326 &= -1 + 2^3 \times (4^5 + 6) + 78 + 9. \\
8327 &= (123 + 4) \times 5 \times (6 + 7) + 8 \times 9. \\
8328 &= (1 + 234 \times 5 + 6) \times 7 + 89. \\
8329 &= 1 + 23 + (4^5 + 6 + 7) \times 8 + 9. \\
8330 &= 123 \times (4 + 56 + 7) + 89. \\
8331 &= 1 \times 2^3 \times 4^5 + 67 + 8 \times 9. \\
8332 &= 1 + 2^3 \times 4^5 + 67 + 8 \times 9. \\
8333 &= 12 \times 3 \times (4 \times 56 + 7) + 8 + 9. \\
8334 &= 1 + 2^3 \times 4^5 + 6 + (7 + 8) \times 9. \\
8335 &= 1 + (2 \times 34 + (5 + 6) \times 78) \times 9. \\
8336 &= 1 \times 2^3 \times 4^5 + 6 \times (7 + 8 + 9). \\
8337 &= 1 + 2^3 \times 4^5 + 6 \times (7 + 8 + 9). \\
8338 &= (1 + 2 \times 3 + 4) \times (56 + 78 \times 9). \\
8339 &= ((1 + 234) \times 5 + 6) \times 7 + 8 \times 9. \\
8340 &= 1^2 \times 3 \times 4 \times 5 \times (67 + 8 \times 9). \\
8341 &= 12 \times 3 + (4^5 + 6 + 7) \times 8 + 9. \\
8342 &= 1 \times 2 + 3 \times 4 \times 5 \times (67 + 8 \times 9). \\
8343 &= 1 + 2 + 3 \times 4 \times 5 \times (67 + 8 \times 9). \\
8344 &= (123 + 4) \times 5 \times (6 + 7) + 89. \\
8345 &= (1 \times 2 + 3 + 4^5 + 6 + 7) \times 8 + 9. \\
8346 &= 1 + (2 + 3 + 4^5 + 6 + 7) \times 8 + 9. \\
8347 &= (1 \times 2 + 3)^4 + (5 + 6) \times 78 \times 9. \\
8348 &= 1 \times 2^3 \times 4^5 + 67 + 89. \\
8349 &= 1 + 2^3 \times 4^5 + 67 + 89. \\
8350 &= (1 + 2^{(3+4)} \times 5) \times (6 + 7) + 8 + 9. \\
8351 &= (1 + 2 \times 3) \times (4 \times (5 \times 6 + 7) \times 8 + 9). \\
8352 &= 12 \times 345 + 6 \times 78 \times 9. \\
8353 &= (123 + 4 \times 5 + 6) \times 7 \times 8 + 9. \\
8354 &= 1 + 2^{(3 \times 4)} + (5 + 6 \times 78) \times 9. \\
8355 &= (1 + (2 + 3) \times 4 \times 5 + 6) \times 78 + 9. \\
8356 &= ((1 + 234) \times 5 + 6) \times 7 + 89. \\
8357 &= 1 + 2 \times ((3 - 4 + 5)^6 - 7 + 89). \\
8358 &= 1 \times 2 \times (3 + (45 + 6 + 7) \times 8 \times 9). \\
8359 &= (1 \times 2 \times 3^4 + 5) \times (6 \times 7 + 8) + 9. \\
8360 &= 1 + 2^3 \times (4^5 + 6) + 7 \times (8 + 9). \\
8361 &= (12 \times 3^4 + 5 + 67) \times 8 + 9. \\
8362 &= (1 + 2 + 34) \times (5 + (6 + 7) \times (8 + 9)). \\
8363 &= 1 \times 2 + 3 \times 45 \times (6 + 7 \times 8) - 9. \\
8364 &= 123 \times (4 + 5 + 6 \times 7 + 8 + 9). \\
8365 &= 1 + 2 \times (-3 + 45 \times (6 + 78 + 9)). \\
8366 &= (12 \times 3 + 45 + 6 + 7) \times 89. \\
8367 &= 1^2 + (3 \times (4 + 5) + 67) \times 89. \\
8368 &= 1 \times 2 + (3 \times (4 + 5) + 67) \times 89. \\
8369 &= (1 + 2 \times 3)^4 + 5 + 67 \times 89. \\
8370 &= (12 + 3^4) \times (5 + 6 + 7 + 8 \times 9). \\
8371 &= 1 + (2^3 \times 4 + 5 \times 6) \times (7 + 8) \times 9. \\
8372 &= (1 + 23 + 4) \times (5 \times 6 \times 7 + 89). \\
8373 &= 12 \times (3^4 + (5 + 6) \times 7 \times 8) + 9. \\
8374 &= 1 \times ((2 + 3) \times 4 \times 5 + 6) \times (7 + 8 \times 9). \\
8375 &= 1 + ((2 + 3) \times 4 \times 5 + 6) \times (7 + 8 \times 9). \\
8376 &= 12^3 + 4^5 \times 6 + 7 \times 8 \times 9. \\
8377 &= 1 + 2 \times (3 + 45 \times (6 + 78 + 9)). \\
8378 &= 1 + 2 \times ((3^4 + 5) \times 6 + 7) \times 8 + 9. \\
8379 &= 1^2 \times 3 \times 45 \times (6 + 7 \times 8) + 9. \\
8380 &= 1^2 + 3 \times 45 \times (6 + 7 \times 8) + 9. \\
8381 &= 1 \times 2 + 3 \times 45 \times (6 + 7 \times 8) + 9. \\
8382 &= 1 + 2 + 3 \times 45 \times (6 + 7 \times 8) + 9. \\
8383 &= 1^2 + 3 \times (4 + 5 \times (6 + 7 \times 8) \times 9). \\
8384 &= 1 \times 2 + 3 \times (4 + 5 \times (6 + 7 \times 8) \times 9). \\
8385 &= 1 + 2 + 3 \times (4 + 5 \times (6 + 7 \times 8) \times 9). \\
8386 &= 1 + 2^3 \times (4^5 + 6 + 7) + 89. \\
8387 &= 1 + 2 \times ((3^4 + 5) \times 6 + 7) \times 8 + 9. \\
8388 &= 12 \times 3 \times (4 \times 56 + 7) + 8 \times 9. \\
8389 &= 1^2 + (3 \times 4 \times (5 + 6) \times 7 + 8) \times 9. \\
8390 &= 1 \times 2 + (3 \times 4 \times (5 + 6) \times 7 + 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8321 &= 9 \times 876 + 5 + 432 \times 1. \\
8322 &= 9 \times 876 + 5 + 432 \times 1. \\
8323 &= (9 + 8 \times 7 + 65) \times 4^3 + 2 + 1. \\
8324 &= -9 + 8765 - 432 \times 1. \\
8325 &= 9 \times 8 \times 7 + 6^5 + 43 + 2 \times 1. \\
8326 &= 9 \times 8 \times 7 + 6^5 + 43 + 2 \times 1. \\
8327 &= (9 + 8) \times 7 + 6^5 + 432 \times 1. \\
8328 &= (9 + 8) \times 7 + 6^5 + 432 + 1. \\
8329 &= (98 \times 7 \times 6 + 5 + 43) \times 2 + 1. \\
8330 &= 98 \times (7 + 65 + 4 + 3^2 \times 1). \\
8331 &= (98 + 7 + 65) \times (4 + 3)^2 + 1. \\
8332 &= 98 \times (7 + (6 + 5 \times 4) \times 3) + 2 \times 1. \\
8333 &= 98 \times (7 + (6 + 5 \times 4) \times 3) + 2 + 1. \\
8334 &= 9 \times (876 + 5 + 43 + 2 \times 1). \\
8335 &= 98 \times (76 + 5 + 4) + 3 + 2 \times 1. \\
8336 &= 98 \times (76 + 5 + 4) + 3 + 2 + 1. \\
8337 &= 98 \times (76 + 5 + 4) + 3 \times 2 + 1. \\
8338 &= 9 + 8 + (7 + 6) \times 5 \times 4^3 \times 2 + 1. \\
8339 &= 98 \times (76 + 5 + 4) + 3^2 \times 1. \\
8340 &= 98 \times (7 + 65) + 4 \times 321. \\
8341 &= (9 + 8 \times 7 + 65) \times 4^3 + 21. \\
8342 &= 9 + 8765 - 432 \times 1. \\
8343 &= 9 \times 87 + 6 \times 5 \times 4 \times 3 \times 21. \\
8344 &= 9 \times 8 \times 7 + 6^5 + 43 + 21. \\
8345 &= 9 + 8 + 7 + 65 \times 4 \times 32 + 1. \\
8346 &= 9 \times 8 \times 7 + 6^5 + 4^3 + 2 \times 1. \\
8347 &= 9 \times 8 \times 7 + 6^5 + 4 + 3 \times 21. \\
8348 &= 9 + 8 \times 7 \times 6 + (5 \times 4)^3 + 2 + 1. \\
8349 &= (9 \times (8 + 7 \times 65) + 4 + 3) \times 2 + 1. \\
8350 &= 9 + 8 + (7 + 6) \times (5 \times 4 \times 32 + 1). \\
8351 &= 98 \times (7 + (6 + 5 \times 4) \times 3) + 21. \\
8352 &= 9 \times (876 + 5 \times 4 + 32 \times 1). \\
8353 &= (98 \times 7 \times 6 + 5 \times 4 \times 3) \times 2 + 1. \\
8354 &= 98 \times (76 + 5 + 4) + 3 + 21. \\
8355 &= (98 + 76) \times (5 + 43) + 2 + 1. \\
8356 &= 98 \times 76 + 5 + 43 \times 21. \\
8357 &= 98 \times (76 + 5 + 4) + 3^{(2+1)}. \\
8358 &= (9 \times 8 + 76 \times 54 + 3) \times 2 \times 1. \\
8359 &= (9 \times 8 + 76 \times 54 + 3) \times 2 + 1. \\
8360 &= 9 + (8 + 7 + 65 \times 4^3) \times 2 + 1. \\
8361 &= 9 \times (876 + 5) + 432 \times 1. \\
8362 &= 9 \times (876 + 5) + 432 + 1. \\
8363 &= 98 \times (76 + 5 + 4) + 32 + 1. \\
8364 &= (9 + 8) \times (7 \times 65 + 4 + 32 + 1). \\
8365 &= 9 \times 8 \times 7 + 6^5 + 4^3 + 21. \\
8366 &= 9 \times 8 \times 7 + 6^5 + 43 \times 2 \times 1. \\
8367 &= 9 \times 8 \times 7 + 6^5 + 43 \times 2 + 1. \\
8368 &= (9 + 8 + 7 + 65 \times 4^3) \times 2 \times 1. \\
8369 &= (9 + 8 + 7 + 65 \times 4^3) \times 2 + 1. \\
8370 &= 9 \times 876 + 54 \times 3^2 \times 1. \\
8371 &= 9 \times 876 + 54 \times 3^2 + 1. \\
8372 &= 98 + 7 \times 6 \times (5 + 4^3 \times (2 + 1)). \\
8373 &= (98 + 76) \times (5 + 43) + 21. \\
8374 &= (9 \times 8 + 7) \times (6 + 5 \times 4 \times (3 + 2 \times 1)). \\
8375 &= 9 \times (876 + 54) + 3 + 2 \times 1. \\
8376 &= 9 \times (876 + 54) + 3 + 2 + 1. \\
8377 &= 9 \times (876 + 54) + 3 \times 2 + 1. \\
8378 &= 9 - 876 + 5 \times 43^2 \times 1. \\
8379 &= 9 + (876 + 54) \times 3^2 \times 1. \\
8380 &= 9 \times (876 + 54) + 3^2 + 1. \\
8381 &= (9 + 8) \times (7 + 6 + 5 \times 4 \times (3 + 21)). \\
8382 &= (9 \times 8 + 7 \times (6 + 5 \times 4)) \times (32 + 1). \\
8383 &= -9 - 8 + 7 \times 6 \times 5 \times 4 \times (3^2 + 1). \\
8384 &= (9 \times (87 + 6) \times 5 + 4 + 3) \times 2 \times 1. \\
8385 &= 9 + 8 \times 7 + 65 \times 4 \times 32 \times 1. \\
8386 &= 9 + 8 \times 7 + 65 \times 4 \times 32 + 1. \\
8387 &= (9 + 8 \times 7) \times (65 + 4^3) + 2 \times 1. \\
8388 &= 9 \times (8 \times 76 + 54 \times 3 \times 2 \times 1). \\
8389 &= (9 \times (8 + 7 \times (6 + 5 \times 4 \times 3) \times 2) + 1). \\
8390 &= 9 \times (8 + 7 \times (6 + 5) \times 4 \times 3) + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8391 &= 12 + 3 \times 45 \times (6 + 7 \times 8) + 9. \\
8392 &= (1 + 2 \times 3 \times 4) \times 5 \times 67 + 8 + 9. \\
8393 &= (1 \times 23 \times 45 + 6 + 7) \times 8 + 9. \\
8394 &= 12 + 3 \times (4 + 5 \times (6 + 7 \times 8) \times 9). \\
8395 &= 1 \times 23 \times (4 \times 5 + 6 \times 7 \times 8 + 9). \\
8396 &= 12^3 + 4 + 56 \times 7 \times (8 + 9). \\
8397 &= (1 + 2)^3 \times (4 \times 56 + 78 + 9). \\
8398 &= 1^2 + 3 \times (45 \times (6 + 7 \times 8) + 9). \\
8399 &= (1 + 2 + 34) \times (5 \times 6 \times 7 + 8 + 9). \\
8400 &= 1 \times 2 \times 3 \times 4 \times (5 + 6 \times 7 \times 8 + 9). \\
8401 &= 1 + 2 \times 3 \times 4 \times (5 + 6 \times 7 \times 8 + 9). \\
8402 &= (1 + 2^{(3+4)}) \times 5 \times (6 + 7) + 8 + 9. \\
8403 &= 123 + 4 \times 5 \times 6 \times (78 - 9). \\
8404 &= 1 \times 23 \times ((45 + 6) \times 7 + 8) + 9. \\
8405 &= 12 \times 3 \times (4 \times 56 + 7) + 89. \\
8406 &= (1 + 2) \times (3 + 45 \times (6 + 7 \times 8) + 9). \\
8407 &= 1 + (2 \times (3 + (45 + 6 + 7) \times 8)) \times 9. \\
8408 &= -1 + 2^{(3+4)} \times 5 \times (6 + 7) + 89. \\
8409 &= 12 \times 3 \times 45 + 6789. \\
8410 &= 1 + (2 + 3 + 4 \times 5) \times 6 \times 7 \times 8 + 9. \\
8411 &= -1 + 2 \times (3 + (4 + 5) \times 6 \times 78 - 9). \\
8412 &= 12 \times (3 \times (4 \times 5 + 6) \times 7 \times 89). \\
8413 &= 1 \times 2^3 \times 4^5 + (6 + 7) \times (8 + 9). \\
8414 &= 1 + 2^3 \times 4^5 + (6 + 7) \times (8 + 9). \\
8415 &= (12 + 3) \times (4 \times 5 + 6 + 7) \times (8 + 9). \\
8416 &= 1 + ((2 + 3)^4 + 5 \times (6 + 7 \times 8)) \times 9. \\
8417 &= (12 \times 3 + 4) \times 5 \times 6 \times 7 + 8 + 9. \\
8418 &= 1 \times 23 \times (45 \times 6 + 7 + 89). \\
8419 &= 1 + 23 \times (45 \times 6 + 7 + 89). \\
8420 &= 1 - 2 - 3 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8421 &= 12 \times (3 + 4 \times 5 + 678) + 9. \\
8422 &= 1 \times 2 \times (3 \times 4^5 + 67 \times (8 + 9)). \\
8423 &= 123 \times 4 \times 5 + 67 \times 89. \\
8424 &= (1 \times 2 + 3 + 45 + 67) \times 8 \times 9. \\
8425 &= 1 + 2 \times 3 \times (4 + 5) \times (67 + 89). \\
8426 &= 1 \times 2 + (345 + 6) \times (7 + 8 + 9). \\
8427 &= 1 + 2 + (345 + 6) \times (7 + 8 + 9). \\
8428 &= 123 + (4^5 + 6 + 7) \times 8 + 9. \\
8429 &= 1 \times 2 + 3 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8430 &= 1 \times 2 \times 3 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8431 &= 1 + 2 \times 3 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8432 &= 1 \times 2^3 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8433 &= 1 \times 2 \times (3 + 45 + 6) \times 78 + 9. \\
8434 &= 1 + 2 \times (3 + 45 + 6) \times 78 + 9. \\
8435 &= (1 + (2 \times 3)^4 + 5) \times 6 + 7 \times 89. \\
8436 &= 12 + (345 + 6) \times (7 + 8 + 9). \\
8437 &= (123 + 4 \times 5) \times (6 \times 7 + 8 + 9). \\
8438 &= 1 \times 2 \times (3 \times 4 - 5 + 6 \times 78 \times 9). \\
8439 &= 12 + 3 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8440 &= 1 + 2 \times (3 + (4 + 5) \times 6 \times 78) + 9. \\
8441 &= (1^2 + 3 \times 45) \times (6 + 7 \times 8) + 9. \\
8442 &= 1^2 \times (3 + 4) \times (56 + 78) \times 9. \\
8443 &= 1^2 + (3 + 4) \times (56 + 78) \times 9. \\
8444 &= 1 \times 2 + (3 + 4) \times (56 + 78) \times 9. \\
8445 &= 1 + 2 + (3 + 4) \times (56 + 78) \times 9. \\
8446 &= 1 + (2 + 3) \times (4 \times 5 \times (6 + 78) + 9). \\
8447 &= 1 \times 2345 + 678 \times 9. \\
8448 &= 1 + 2345 + 678 \times 9. \\
8449 &= 1 + 2 \times 3 \times 4 \times (5 \times 67 + 8 + 9). \\
8450 &= (1 \times 2 \times 3 + 4) \times (56 + 789). \\
8451 &= 1 + (2 \times 3 + 4) \times (56 + 789). \\
8452 &= 1^2 + (3^4 + (5 + 6) \times 78) \times 9. \\
8453 &= ((1 + 23) \times 4 + 5 + 6) \times (7 + 8 \times 9). \\
8454 &= 12 + (3 + 4) \times (56 + 78) \times 9. \\
8455 &= (1 \times 2^3 + 45 + 6 \times 7) \times 89. \\
8456 &= 1 + (23 + 4 \times (5 + 6 + 7)) \times 89. \\
8457 &= 12^3 + 4 \times 5 \times 6 \times 7 \times 8 + 9. \\
8458 &= 1 \times 2 \times (3 \times 4 + 5 + 6 \times 78 \times 9). \\
8459 &= 1 + 2 \times (3 \times 4 + 5 + 6 \times 78 \times 9). \\
8460 &= (12 + 3) \times (4 + 56 + 7 \times 8 \times 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8391 &= 9 + ((8 + 7 \times 6) \times 5 + 4) \times (32 + 1). \\
8392 &= 9 \times 8 + (7 + 6) \times 5 \times 4^3 \times 2 \times 1. \\
8393 &= 98 \times (76 + 5 + 4) + 3 \times 21. \\
8394 &= 98 \times 76 + 5^4 + 321. \\
8395 &= (9 \times (87 + 6) \times 5 + 4 \times 3) \times 2 + 1. \\
8396 &= 9 + 8 + 7 \times (6 \times (5 + 4) + 3) \times 21. \\
8397 &= 9 \times (8 \times 76 + 54 \times 3 \times 2 + 1). \\
8398 &= (9 + 8) \times (7 + 6) \times (5 + 4 \times 3 + 21). \\
8399 &= 9 \times 8 + 7 + 65 \times 4 \times 32 \times 1. \\
8400 &= 9 \times 8 + 7 + 65 \times 4 \times 32 + 1. \\
8401 &= (9 + 8 \times 7 \times 6 + 5) \times 4 \times 3 \times 2 + 1. \\
8402 &= 9 \times (876 + 54) + 32 \times 1. \\
8403 &= 9 \times (876 + 54) + 32 + 1. \\
8404 &= 9 \times 8 \times 7 + 6^5 + 4 \times (32 - 1). \\
8405 &= 9 \times 8 + (7 + 6) \times (5 \times 4 \times 32 + 1). \\
8406 &= (9 + 8 \times 7) \times (65 + 4^3) + 21. \\
8407 &= ((9 + 87) \times 6 + 5^4) \times (3 \times 2 + 1). \\
8408 &= 9 \times 8 \times 7 + 6^5 + 4 \times 32 \times 1. \\
8409 &= 9 \times 8 \times 7 + 6^5 + 4 \times 32 + 1. \\
8410 &= (98 + 76 \times 54 + 3) \times 2 \times 1. \\
8411 &= 9 + 8 \times 7 + (6 + 5 \times 4) \times 321. \\
8412 &= 9 \times 8 \times 7 + 6^5 + 4 \times (32 + 1). \\
8413 &= 9 \times 876 + (5 \times 4 + 3)^2 \times 1. \\
8414 &= 9 \times 876 + (5 \times 4 + 3)^2 + 1. \\
8415 &= 9 \times (876 + 54 + 3 + 2 \times 1). \\
8416 &= 9 + 87 + 65 \times 4 \times 32 \times 1. \\
8417 &= 9 + 87 + 65 \times 4 \times 32 + 1. \\
8418 &= 98 + (7 + 6) \times 5 \times 4^3 \times 2 \times 1. \\
8419 &= 98 + (7 + 6) \times 5 \times 4^3 \times 2 + 1. \\
8420 &= 98 \times 7 + 6 \times (5 + 4 \times 321). \\
8421 &= 9 \times (8 + 7) \times (6 + 54) + 321. \\
8422 &= ((987 + 65) \times 4 + 3) \times 2 \times 1. \\
8423 &= ((987 + 65) \times 4 + 3) \times 2 + 1. \\
8424 &= 9 \times (876 + 54 + 3 + 2 + 1). \\
8425 &= 98 + 7 + 65 \times 4 \times 32 \times 1. \\
8426 &= 98 + 7 + 65 \times 4 \times 32 + 1. \\
8427 &= 9 \times 8 \times 7 + 6^5 + (4 + 3) \times 21. \\
8428 &= 98 \times (7 + 65 + 4 + 3^2 + 1). \\
8429 &= 9 \times 876 + 543 + 2 \times 1. \\
8430 &= 9 \times 876 + 543 + 2 + 1. \\
8431 &= 9 \times 8 \times (7 + 6) \times (5 + 4) + 3 \times 2 + 1. \\
8432 &= 9 + 8 + 765 \times (4 + 3 \times 2 + 1). \\
8433 &= 9 \times (876 + 54) + 3 \times 21. \\
8434 &= 9 + 8 \times (7 + 6) \times (5 + 4) \times 3^2 + 1. \\
8435 &= 98 \times 7 + 6^5 + 4 - 32 + 1. \\
8436 &= (9 + 8 + (7 + 6) \times 5 \times 43) \times (2 + 1). \\
8437 &= 9 + (87 + 6 + 5) \times 43 \times 2 \times 1. \\
8438 &= 9 + (87 + 6 + 5) \times 43 \times 2 + 1. \\
8439 &= (9 + 8) \times 7 + 65 \times 4 \times 32 \times 1. \\
8440 &= (9 + 8) \times 7 + 65 \times 4 \times 32 + 1. \\
8441 &= 9 + 8 \times ((76 + 5) \times (4 + 3^2) + 1). \\
8442 &= 98 \times 7 \times 6 + 5 + 4321. \\
8443 &= (98 + 7 \times 6 \times 5 \times 4) \times 3^2 + 1. \\
8444 &= (9 + (8 + 76) \times 5 \times 4) \times (3 + 2) - 1. \\
8445 &= (9 + (8 + 76) \times 5 \times 4) \times (3 + 2 \times 1). \\
8446 &= (9 + (87 + 6 + 5) \times 43) \times 2 \times 1. \\
8447 &= (9 + (87 + 6 + 5) \times 43) \times 2 + 1. \\
8448 &= 9 \times 876 + 543 + 21. \\
8449 &= 9 \times 87 \times 6 + 5^4 \times 3 \times 2 + 1. \\
8450 &= 9 + 8 \times 7 + 65 \times 43 \times (2 + 1). \\
8451 &= 98 + 7 + (6 + 5 \times 4) \times 321. \\
8452 &= (9 + 876 + 54) \times 3^2 + 1. \\
8453 &= 9 \times (8 + 7 \times 6) + (5 \times 4)^3 + 2 + 1. \\
8454 &= 9 + 8 + (7 + 6) \times (5^4 + 3 + 21). \\
8455 &= 9 \times (8 + 7) + 65 \times 4 \times 32 \times 1. \\
8456 &= 9 \times 8 \times 7 \times 6 + 5432 \times 1. \\
8457 &= 9 \times 8 \times 7 \times 6 + 5432 + 1. \\
8458 &= 9 + 8 \times (7 + 6 + 5 \times 4) \times 32 + 1. \\
8459 &= 9 + (8 + 7 + 6 + 5) \times (4 + 321). \\
8460 &= 9 \times (876 + 54 + 3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
8461 &= 1^2 + 3 \times 4 \times 5 \times (6 + (7 + 8) \times 9). \\
8462 &= 1 \times 2 + 3 \times 4 \times 5 \times (6 + (7 + 8) \times 9). \\
8463 &= 1 + 2 + 3 \times 4 \times 5 \times (6 + (7 + 8) \times 9). \\
8464 &= (1 + 2 \times 3 \times 4) \times 5 \times 67 + 89. \\
8465 &= (1 \times 2 + 3) \times (4 + 5 \times 6 \times 7 \times 8 + 9). \\
8466 &= 1 + (2 + 3) \times (4 + 5 \times 6 \times 7 \times 8 + 9). \\
8467 &= 1 + 2 \times 3 + (4^5 - 6 - 78) \times 9. \\
8468 &= 1 \times 2^3 + (4^5 - 6 - 78) \times 9. \\
8469 &= (1^2 + 3)^4 \times 5 \times 6 + 789. \\
8470 &= 1 \times 2 \times (3 + 4 \times 5 + 6 \times 78 \times 9). \\
8471 &= 1 + 2 \times (3 + 4 \times 5 + 6 \times 78 \times 9). \\
8472 &= 1 \times 2^3 \times (45 \times 6 + 789). \\
8473 &= 1 + 2^3 \times (45 \times 6 + 789). \\
8474 &= 1 + 2^{(3 \times 4)} + 56 \times 78 + 9. \\
8475 &= (12 + 3) \times (4 \times 5 + 67 \times 8 + 9). \\
8476 &= (12 + 3) \times (4 + 567) - 89. \\
8477 &= 1 - 2 + 3 \times (4 + 5 \times (6 + 7 \times 8)) \times 9. \\
8478 &= 1 \times 2 \times (3 \times 45 + 6 \times 7 \times 8) \times 9. \\
8479 &= (1^2 + 3 \times 4 \times 5) \times (67 + 8 \times 9). \\
8480 &= 1 \times (2 + 3) \times 4 \times (5 \times 67 + 89). \\
8481 &= (123 \times 4 + 567) \times 8 + 9. \\
8482 &= -1 \times 23 + 45 \times (6 + 7 + 8) \times 9. \\
8483 &= (12 \times 3 + 456 + 7) \times (8 + 9). \\
8484 &= 12^3 + 4 \times (5 \times 6 \times 7 \times 8 + 9). \\
8485 &= 1 + 2 \times 3 \times (4^5 + 6 \times (7 \times 8 + 9)). \\
8486 &= -1 + 23 \times (4 \times 5 + 6 + 7 + 8) \times 9. \\
8487 &= 1 \times 23 \times (4 \times 5 + 6 + 7 + 8) \times 9. \\
8488 &= 1 + 23 \times (4 \times 5 + 6 + 7 + 8) \times 9. \\
8489 &= (12 \times 3 + 4) \times 5 \times 6 \times 7 + 89. \\
8490 &= 1 \times 2 \times (3456 + 789). \\
8491 &= 1 + 2 \times (3456 + 789). \\
8492 &= 12^3 + (4 + 5 + 67) \times 89. \\
8493 &= ((1 + 23) \times 4 + 5) \times (6 + 78) + 9. \\
8494 &= 1 \times 2 \times ((3 + 4) \times 5 + 6 \times 78 \times 9). \\
8495 &= 12^3 + 4^5 \times 6 + 7 \times 89. \\
8496 &= (1 \times 2 \times 3 + 45 + 67) \times 8 \times 9. \\
8497 &= (1 + 23 + 4^5 + 6 + 7) \times 8 + 9. \\
8498 &= 1 \times 2 + (3 + 4 + 5) \times (6 + 78 \times 9). \\
8499 &= 1 + 2 + (3 + 4 + 5) \times (6 + 78 \times 9). \\
8500 &= 1 \times (2 + 3) \times 4 \times 5 \times (6 + 7 + 8 \times 9). \\
8501 &= 1 + (2 + 3) \times 4 \times 5 \times (6 + 7 + 8 \times 9). \\
8502 &= 1 \times 2 \times (34 + 5 + 6 \times 78 \times 9). \\
8503 &= 1 + 2 \times (34 + 5 + 6 \times 78 \times 9). \\
8504 &= 1 + (2 + 3 \times 45) \times (6 + 7 \times 8) + 9. \\
8505 &= 1^{23} \times 45 \times (6 + 7 + 8) \times 9. \\
8506 &= 1^{23} + 45 \times (6 + 7 + 8) \times 9. \\
8507 &= 1 \times 2 + (3 + 4 + 56) \times (7 + 8) \times 9. \\
8508 &= (1 + 2 \times 3)^4 + 5 + 678 \times 9. \\
8509 &= 1^2 \times 34 \times 5 \times (6 \times 7 + 8) + 9. \\
8510 &= 1 \times 2 + 3 + 45 \times (6 + 7 + 8) \times 9. \\
8511 &= 1 + 2 + 3 + 45 \times (6 + 7 + 8) \times 9. \\
8512 &= 1 + 2 \times 3 + 45 \times (6 + 7 + 8) \times 9. \\
8513 &= 1 \times 2^3 + 45 \times (6 + 7 + 8) \times 9. \\
8514 &= 12^3 \times 4 + (5 + 6 + 7) \times 89. \\
8515 &= 1^2 + 3^4 \times 5 \times (6 + 7 + 8) + 9. \\
8516 &= 1 \times 2 + 3^4 \times 5 \times (6 + 7 + 8) + 9. \\
8517 &= 1 + 2 + 3^4 \times 5 \times (6 + 7 + 8) + 9. \\
8518 &= (123 + 4) \times (5 + 6 + 7 \times 8) + 9. \\
8519 &= (1 \times 2 + 3) \times (4^5 + 678) + 9. \\
8520 &= 12 + 3 + 45 \times (6 + 7 + 8) \times 9. \\
8521 &= 12 + 34 \times 5 \times (6 \times 7 + 8) + 9. \\
8522 &= (1 + 2 + 3 \times 4) \times 567 + 8 + 9. \\
8523 &= 1^2 \times (3^4 \times (5 + 6) + 7 \times 8) \times 9. \\
8524 &= 1 + (2 + (3 + 4 + 56) \times (7 + 8)) \times 9. \\
8525 &= 1 \times 2 + (3^4 \times (5 + 6) + 7 \times 8) \times 9. \\
8526 &= 12^3 + 4 + 5 + 6789. \\
8527 &= 1 + (2 \times 34 + 5 \times 6) \times (78 + 9). \\
8528 &= 1 \times 23 + 45 \times (6 + 7 + 8) \times 9. \\
8529 &= 1 + 23 + 45 \times (6 + 7 + 8) \times 9. \\
8530 &= 1 - 2^3 + (4^5 + 6 \times 7) \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8461 &= 9 \times (8 + 7 \times 65 + 4 + 3) \times 2 + 1. \\
8462 &= 98 \times 7 + 6 \times 54 \times (3 + 21). \\
8463 &= 9 + 8 + (7 + 6) \times 5^4 + 321. \\
8464 &= 9 \times 8 + 7 + 65 \times 43 \times (2 + 1). \\
8465 &= (9 + 8) \times 7 + (6 + 5 \times 4) \times 321. \\
8466 &= 9 + 8 \times 7 \times (65 + 43 \times 2) + 1. \\
8467 &= -9 \times 87 + 6 + 5 \times 43^2 - 1. \\
8468 &= (9 + 8) \times (7 \times 65 + 43) + 2 \times 1. \\
8469 &= (9 + 8) \times (7 \times 65 + 43) + 2 + 1. \\
8470 &= (9 \times 8 \times (7 + 6) + 5) \times (4 + 3 + 2) + 1. \\
8471 &= 98 \times 7 + 6^5 + 4 + 3 + 2 \times 1. \\
8472 &= 98 \times 7 + 6^5 + 4 + 3 + 2 + 1. \\
8473 &= 98 \times 7 + 6^5 + 4 + 3 \times 2 + 1. \\
8474 &= 9 + (8 + 7 + 65 + 4 \times 3)^2 + 1. \\
8475 &= 98 \times 7 + 6^5 + 4 + 3^2 \times 1. \\
8476 &= 98 \times 7 + 6^5 + 4 + 3^2 + 1. \\
8477 &= 98 \times 7 + 6^5 + 4 \times 3 + 2 + 1. \\
8478 &= (9 \times 8 + 7 + 65 \times 4^3) \times 2 \times 1. \\
8479 &= (9 \times 8 + 7 + 65 \times 4^3) \times 2 + 1. \\
8480 &= (9 \times 87 + 65) \times (4 + 3 + 2 + 1). \\
8481 &= 9 + 87 + 65 \times 43 \times (2 + 1). \\
8482 &= 98 \times 7 + 6^5 + 4 \times (3 + 2 \times 1). \\
8483 &= 98 \times 7 + 6^5 + 4 \times (3 + 2) + 1. \\
8484 &= (9 + 8 + 76 \times 5 + 4 + 3) \times 21. \\
8485 &= (9 \times 87 + 6 + 5^4) \times 3 \times 2 + 1. \\
8486 &= 98 \times 7 + 6^5 + 4 \times 3 \times 2 \times 1. \\
8487 &= 98 \times 7 + 6^5 + 4 \times 3 \times 2 + 1. \\
8488 &= 9 \times (8 + 7 \times 65) + 4321. \\
8489 &= 9 + (8 + 7 \times 6 \times 5 \times 4) \times (3^2 + 1). \\
8490 &= (987 + 6 \times 543) \times 2 \times 1. \\
8491 &= 98 \times 7 \times 6 + 5^4 \times (3 \times 2 + 1). \\
8492 &= 9 \times 87 + 6^5 - 4 - 3 \times 21. \\
8493 &= 987 + (6 \times 5^4 + 3) \times 2 \times 1. \\
8494 &= 987 + (6 \times 5^4 + 3) \times 2 + 1. \\
8495 &= 98 \times 7 + 6^5 + 4 \times 3 + 21. \\
8496 &= 9 \times 8 \times (76 + 5 + 4 + 32 + 1). \\
8497 &= 9 \times 8 \times (7 \times 6 + 5 + 4 \times 3) \times 2 + 1. \\
8498 &= 98 \times 7 + 6^5 + 4 + 32 \times 1. \\
8499 &= 98 \times 7 + 6^5 + 4 + 32 + 1. \\
8500 &= (9 \times 8 + 7 + 6) \times 5 \times 4 \times (3 + 2) \times 1. \\
8501 &= (9 \times 8 + 7 + 6) \times 5 \times 4 \times (3 + 2) + 1. \\
8502 &= 98 \times 7 + 6^5 + 4 \times (3^2 + 1). \\
8503 &= 9 + (8 \times 7 + 6) \times (5 + 4 \times (32 + 1)). \\
8504 &= (9 + 8) \times 7 + 65 \times 43 \times (2 + 1). \\
8505 &= 9 \times (876 + 5 + 43 + 21). \\
8506 &= 9 \times (87 + 6) \times 5 + 4321. \\
8507 &= 98 \times 7 + 6^5 + 43 + 2 \times 1. \\
8508 &= 98 \times 7 + 6^5 + 43 + 2 + 1. \\
8509 &= 9 \times 8 + (7 + 6) \times (5^4 + 3 + 21). \\
8510 &= 9 \times 876 + 5^4 + 3 - 2 \times 1. \\
8511 &= 98 \times 7 + 6^5 + (4 + 3)^2 \times 1. \\
8512 &= 98 \times 7 + 6^5 + (4 + 3)^2 + 1. \\
8513 &= 98 + 765 \times (4 + 3 \times 2 + 1). \\
8514 &= 9 \times 876 + 5^4 + 3 + 2 \times 1. \\
8515 &= 9 \times 876 + 5^4 + 3 + 2 + 1. \\
8516 &= 9 \times 876 + 5^4 + 3 \times 2 + 1. \\
8517 &= 9 \times 87 + 6 \times (5 + 4 \times 321). \\
8518 &= 9 \times 876 + 5^4 + 3^2 \times 1. \\
8519 &= 9 \times 876 + 5^4 + 3^2 + 1. \\
8520 &= 9 \times (8 + 7) + 65 \times 43 \times (2 + 1). \\
8521 &= (9 + 8 \times 7 + 6) \times 5 \times 4 \times 3 \times 2 + 1. \\
8522 &= 9 + 8 \times 76 \times (5 + 4 + 3 + 2) + 1. \\
8523 &= 987 + 6 \times (5^4 + 3) \times 2 \times 1. \\
8524 &= 9 \times 876 + 5 \times 4 \times 32 \times 1. \\
8525 &= 9 \times 876 + 5 \times 4 \times 32 + 1. \\
8526 &= 98 \times 7 + 6^5 + 43 + 21. \\
8527 &= (9 + (8 + 7) \times (6 + 5)) \times (4 + 3)^2 + 1. \\
8528 &= 98 \times 7 + 6^5 + 4^3 + 2 \times 1. \\
8529 &= 98 \times 7 + 6^5 + 4 + 3 \times 21. \\
8530 &= (98 + 7 + 65 \times 4^3) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8531 &= (12^3 + 4) \times 5 + 6 - (7 + 8) \times 9. \\
8532 &= 12^3 + (4 + 5) \times (6 + 78) \times 9. \\
8533 &= 1 + 2 \times (3 + 456 + 7 + 8) \times 9. \\
8534 &= (1 \times 23 \times 4 \times 5 + 6 \times 7) \times (8 + 9). \\
8535 &= (1^2 + 3^4 \times 5) \times (6 + 7 + 8) + 9. \\
8536 &= -1 + 2^3 \times 4^5 + 6 \times 7 \times 8 + 9. \\
8537 &= 12^3 + 4 \times 5 + 6789. \\
8538 &= 1 + 2^3 \times 4^5 + 6 \times 7 \times 8 + 9. \\
8539 &= 1 + 2 \times (3 + (4 + 5) \times 6 \times (7 + 8 \times 9)). \\
8540 &= 1^2 \times 3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8541 &= 12 \times 3 + 45 \times (6 + 7 + 8) \times 9. \\
8542 &= 1 \times 2 + 3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8543 &= 1 \times 2 \times 3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8544 &= 1 \times 2 \times (3 \times 4 \times 5 + 6 \times 78 \times 9). \\
8545 &= 1 + 2 \times (3 \times 4 \times 5 + 6 \times 78 \times 9). \\
8546 &= 1 + 2^3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8547 &= 123 + (4 + 5) \times (6 + 7) \times 8 \times 9. \\
8548 &= (1 + 2 \times 3)^4 + (5 + 678) \times 9. \\
8549 &= 1234 \times (-5 + 6) \times 7 - 89. \\
8550 &= (1 + 2 + 3 \times 4) \times 5 \times (6 \times 7 + 8 \times 9). \\
8551 &= (1 + 23 \times 4 \times 5 + 6 \times 7) \times (8 + 9). \\
8552 &= 12 + 3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8553 &= (1 + 23) \times 4 \times (5 + 6 + 78) + 9. \\
8554 &= -1 \times 2 + 3 \times 4 \times (5 + 6 + 78 \times 9). \\
8555 &= 1 \times (2 + 3) \times (4^5 + 678 + 9). \\
8556 &= 12 \times (34 + 56 + 7 \times 89). \\
8557 &= 1^2 + 3 \times 4 \times (5 + 6 + 78 \times 9). \\
8558 &= 1 \times 2 + 3 \times 4 \times (5 + 6 + 78 \times 9). \\
8559 &= 123 \times 45 + 6 \times 7 \times 8 \times 9. \\
8560 &= 1 \times 23 + (4^5 + 6 \times 7) \times 8 + 9. \\
8561 &= 1 + 23 + (4^5 + 6 \times 7) \times 8 + 9. \\
8562 &= 123 \times 4 \times 5 + 678 \times 9. \\
8563 &= 1 \times 2 + (3 + 4^5 + 6 \times 7) \times 8 + 9. \\
8564 &= (1 + 2)^3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8565 &= (1 + 2 + 3 \times 45) \times (6 + 7 \times 8) + 9. \\
8566 &= 1234 \times (-5 + 6) \times 7 - 8 \times 9. \\
8567 &= -1 + 2 \times 3^4 \times 56 - 7 \times 8 \times 9. \\
8568 &= 12 \times 3 \times 4 \times 56 + 7 \times 8 \times 9. \\
8569 &= 1 + 2 \times 34 \times (5 \times 6 + 7 + 89). \\
8570 &= 1 + (2 + 3) \times (4 + 5 \times 6 \times 7) \times 8 + 9. \\
8571 &= 1 + 2 + (3 + 4 + 5) \times 6 \times 7 \times (8 + 9). \\
8572 &= (12^3 + 4) \times 5 - 6 + 7 - 89. \\
8573 &= 12 \times 3 + (4^5 + 6 \times 7) \times 8 + 9. \\
8574 &= 12^3 + 4^5 \times 6 + 78 \times 9. \\
8575 &= 1 + 2 \times 3 \times (4 \times 5 \times 67 + 89). \\
8576 &= 123 \times (4 + 5 \times (6 + 7)) + 89. \\
8577 &= 12^3 + 456 \times (7 + 8) + 9. \\
8578 &= 1^2 + 3 \times (45 + 6) \times 7 \times 8 + 9. \\
8579 &= 1 \times 2 + 3 \times (45 + 6) \times 7 \times 8 + 9. \\
8580 &= 12 \times (34 \times 5 + 67 \times 8 + 9). \\
8581 &= 1^2 + 3 \times 4 \times (5 + 6) \times (7 \times 8 + 9). \\
8582 &= 1 \times 2^3 \times 4^5 + 6 \times (7 \times 8 + 9). \\
8583 &= 1 + 2^3 \times 4^5 + 6 \times (7 \times 8 + 9). \\
8584 &= (1 + 2 \times 3 \times 4) \times (5 \times 67 + 8) + 9. \\
8585 &= 12^3 + 4 + (5 + 6) \times 7 \times 89. \\
8586 &= (1 + 2^3 + 4 + 5) \times (6 \times 78 + 9). \\
8587 &= 1 + (2 \times (3^4 + 56 \times 7) + 8) \times 9. \\
8588 &= 1 - 23 \times 4 + (5 + 6) \times 789. \\
8589 &= 12 + 3 \times (45 + 6) \times 7 \times 8 + 9. \\
8590 &= 1 + (2 \times 3 + 4) \times (5 + 6) \times 78 + 9. \\
8591 &= (1 + 2 \times 3 \times 4 \times 5) \times (6 + 7 \times 8 + 9). \\
8592 &= 12 + 3 \times 4 \times (5 + 6) \times (7 \times 8 + 9). \\
8593 &= (12 \times 3 + 4^5 + 6 + 7) \times 8 + 9. \\
8594 &= (1 + 2 + 3 \times 4) \times 567 + 89. \\
8595 &= ((1 \times 2 \times 3)^4 + 5) \times 6 + 789. \\
8596 &= 1 \times 2 \times (3^4 + 5 + 6 \times 78 \times 9). \\
8597 &= 1 + 2 \times (3^4 + 5 + 6 \times 78 \times 9). \\
8598 &= 12 \times 3^4 \times 5 + 6 \times 7 \times 89. \\
8599 &= (1 + 2) \times 3 \times 4^5 + 6 - 7 \times 89. \\
8600 &= 1 \times 2^3 \times (4^5 + 6 \times 7) + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8531 &= (98 + 7 + 65 \times 4^3) \times 2 + 1. \\
8532 &= 9 \times 8 \times 7 + 6^5 + 4 \times 3 \times 21. \\
8533 &= 9 \times 876 + 5^4 + 3 + 21. \\
8534 &= 98 \times 76 + 543 \times 2 \times 1. \\
8535 &= 98 \times 76 + 543 \times 2 + 1. \\
8536 &= 9 \times 876 + 5^4 + 3^{(2+1)}. \\
8537 &= ((9 + 8 \times 7) \times 65 + 43) \times 2 + 1. \\
8538 &= ((9 \times 8 + 7) \times 6 \times (5 + 4) + 3) \times 2 \times 1. \\
8539 &= ((9 \times 8 + 7) \times 6 \times (5 + 4) + 3) \times 2 + 1. \\
8540 &= (98 + 7 \times 6) \times (54 + 3 \times 2 + 1). \\
8541 &= 9 \times 876 + 5^4 + 32 \times 1. \\
8542 &= 9 \times 876 + 5^4 + 32 + 1. \\
8543 &= -9 - 8 \times 7 - 6^5 + 4(3 \times 2 + 1). \\
8544 &= 98 + (7 + 6) \times 5^4 + 321. \\
8545 &= (9 + 8 + 7) \times (6 \times 54 + 32) + 1. \\
8546 &= (9 + 8 \times 7) \times 65 + 4321. \\
8547 &= 98 \times 7 + 6^5 + 4^3 + 21. \\
8548 &= 98 \times 7 + 6^5 + 43 \times 2 \times 1. \\
8549 &= 98 \times 7 + 6^5 + 43 \times 2 + 1. \\
8550 &= 9 \times (8 + 7 \times 65 + 4 \times 3) \times 2 \times 1. \\
8551 &= 9 \times (8 + 7 \times 65 + 4 \times 3) \times 2 + 1. \\
8552 &= 9 + 87 \times 6 + (5 \times 4)^3 + 21. \\
8553 &= 9 \times (8 \times 7 + 65 \times 4) \times 3 + 21. \\
8554 &= 9 \times 87 + 6^5 - 4 - 3 + 2 \times 1. \\
8555 &= (9 + 8 + 7 \times 6) \times ((5 + 4 + 3)^2 + 1). \\
8556 &= (98 \times 7 \times 6 + 54 \times 3) \times 2 \times 1. \\
8557 &= (98 \times 7 \times 6 + 54 \times 3) \times 2 + 1. \\
8558 &= 98 \times 7 + 6^5 + 4 \times (3 + 21). \\
8559 &= 9 \times 87 + 6 \times 54 \times (3 + 21). \\
8560 &= 9 \times (8 \times 7 + 6) + (5 \times 4)^3 + 2 \times 1. \\
8561 &= 9 + 8 + (7 + 65 \times 4) \times 32 \times 1. \\
8562 &= 9 + 8 + (7 + 65 \times 4) \times 32 + 1. \\
8563 &= 9 \times 87 + 6^5 + 4 + 3 - 2 - 1. \\
8564 &= 9 \times 87 + 6^5 + 4 + 3 - 2 \times 1. \\
8565 &= 9 + (87 + 6) \times (5 + 43 \times 2 + 1). \\
8566 &= 9 + (8 \times 7 + 6) \times (5 + 4^3) \times 2 + 1. \\
8567 &= 9 \times 87 + 6^5 + 4 + 3 + 2 - 1. \\
8568 &= 9 \times 87 + 6^5 + 4 + 3 + 2 \times 1. \\
8569 &= 9 \times 87 + 6^5 + 4 + 3 + 2 + 1. \\
8570 &= 9 \times 87 + 6^5 + 4 + 3 \times 2 + 1. \\
8571 &= 9 + 8 + (7 + 6) \times (5^4 + 32 + 1). \\
8572 &= 9 \times 876 + 5^4 + 3 \times 21. \\
8573 &= 9 \times 87 + 6^5 + 4 + 3^2 + 1. \\
8574 &= 9 \times 87 + 6^5 + 4 \times 3 + 2 + 1. \\
8575 &= (98 + 7 \times (6 + 5)) \times (4 + 3)^2 \times 1. \\
8576 &= (98 + 7 \times (6 + 5)) \times (4 + 3)^2 + 1. \\
8577 &= 9 \times (87 \times 6 + 5 \times 43 \times 2 + 1). \\
8578 &= (9 + 87) \times 6 + (5 \times 4)^3 + 2 \times 1. \\
8579 &= 9 \times 87 + 6^5 + 4 \times (3 + 2) \times 1. \\
8580 &= 9 + 8 \times 7 + 65 \times 43 \times (2 + 1). \\
8581 &= (9 + 8 \times 7 + 65) \times (4^3 + 2) + 1. \\
8582 &= (9 + 8 \times 7) \times (6 + 5) \times 4 \times 3 + 2 \times 1. \\
8583 &= 9 \times 87 + 6^5 + 4 \times 3 \times 2 \times 1. \\
8584 &= 9 \times 87 + 6^5 + 4 \times 3 \times 2 + 1. \\
8585 &= 9 + (8 \times 7 + 6 + 5) \times 4 \times 32 \times 1. \\
8586 &= 9 \times (876 + 54 + 3 + 21). \\
8587 &= 9 \times 87 + 6^5 + 4 + 3 + 21. \\
8588 &= 9 \times 87 + 6^5 - 4 + 32 + 1. \\
8589 &= (9 + 8 + 76 \times 5 + 4 \times 3) \times 21. \\
8590 &= 98 \times 7 + 6^5 + 4 \times 32 \times 1. \\
8591 &= 98 \times 7 + 6^5 + 4^3 \times 2 + 1. \\
8592 &= 9 \times 87 + 6^5 + 4 \times 3 + 21. \\
8593 &= 9 \times 87 \times (6 + 5) + 4 - 3 - 21. \\
8594 &= 98 \times 7 + 6^5 + 4 \times (32 + 1). \\
8595 &= 9 \times 87 + 6^5 + 4 + 32 \times 1. \\
8596 &= 9 \times 87 + 6^5 + 4 + 32 + 1. \\
8597 &= 9 \times 8 \times 76 + 5^4 \times (3 + 2) \times 1. \\
8598 &= 9 \times 8 \times 76 + 5^4 \times (3 + 2) + 1. \\
8599 &= 9 \times 87 + 6^5 + 4 \times (3^2 + 1). \\
8600 &= (9 + (8 \times 76 + 5) \times (4 + 3)) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8601 &= 12^3 \times 4 + 5 \times 6 \times 7 \times 8 + 9. \\
8602 &= 1 \times 23 \times (4 + 5 + 6 + 7) \times (8 + 9). \\
8603 &= 1 + 23 \times (4 + 5 + 6 + 7) \times (8 + 9). \\
8604 &= (1^2 + 3) \times (4 \times 56 + 7 + 8) \times 9. \\
8605 &= (1 \times 2 + 3) \times ((4 + 5 \times 6 \times 7) \times 8 + 9). \\
8606 &= 1 + (2 + 3) \times ((4 + 5 \times 6 \times 7) \times 8 + 9). \\
8607 &= 12 + 3 \times ((45 + 6) \times 7 \times 8 + 9). \\
8608 &= (12^3 - 4) \times 5 - 6 - 7 - 8 + 9. \\
8609 &= (1 + 2^3 + 4^5 + 6 \times 7) \times 8 + 9. \\
8610 &= 1 + (2 + 34 \times 5) \times (6 \times 7 + 8) + 9. \\
8611 &= (1 + 2 \times (3 + 45 + 6)) \times (7 + 8 \times 9). \\
8612 &= 1 - 2 \times 34 + (5 + 6) \times 789. \\
8613 &= 12 \times (34 + 5 + 678) + 9. \\
8614 &= 1 + (2 + 3 + 4) \times (5 + 6) \times (78 + 9). \\
8615 &= 1 \times 2 \times (3 + 4) \times (5 + 6) \times 7 \times 8 - 9. \\
8616 &= (1 + 23) \times (4 \times 56 + (7 + 8) \times 9). \\
8617 &= 1 \times 2^3 \times (4^5 + 6 \times 7) + 89. \\
8618 &= 1 \times (2 + 3 \times 4 \times 5) \times (67 + 8 \times 9). \\
8619 &= 123 \times (4 \times 5 + 6 \times 7 + 8) + 9. \\
8620 &= 1^2 + (34 + 5) \times (6 + 7) \times (8 + 9). \\
8621 &= 1 \times 2 + (34 + 5) \times (6 + 7) \times (8 + 9). \\
8622 &= 1 + 2 + (34 + 5) \times (6 + 7) \times (8 + 9). \\
8623 &= 1 + 23 \times (4 + 5) \times 6 \times 7 - 8 \times 9. \\
8624 &= 1 + 2^{(3 \times 4)} + 567 \times 8 - 9. \\
8625 &= (1 \times 23 \times 45 + 6 \times 7) \times 8 + 9. \\
8626 &= 1 + (2 + 3 + 4 \times 5) \times (6 \times 7 \times 8 + 9). \\
8627 &= 1 - 2 + 3 \times 4 \times (5 + 6 \times 7 \times (8 + 9)). \\
8628 &= 123 + 45 \times (6 + 7 + 8) \times 9. \\
8629 &= 1^2 + 3 \times 4 \times (5 + 6 \times 7 \times (8 + 9)). \\
8630 &= 1 \times 2 + 3 \times 4 \times (5 + 6 \times 7 \times (8 + 9)). \\
8631 &= 12 + (34 + 5) \times (6 + 7) \times (8 + 9). \\
8632 &= 1 \times 2^3 \times (456 + 7 \times 89). \\
8633 &= 1 + 2^3 \times (456 + 7 \times 89). \\
8634 &= (1 + 2 + 3 \times 4) \times (567 + 8) + 9. \\
8635 &= 1 \times 2 + (34 + 56 + 7) \times 89. \\
8636 &= ((1 + 2)^3 \times 45 + 6) \times 7 + 89. \\
8637 &= 12^3 \times 4 + 5 \times (6 \times 7 \times 8 + 9). \\
8638 &= -1 \times 2 + 3 \times 4 \times 5 \times 6 \times (7 + 8 + 9). \\
8639 &= -12 \times 3 - 4 + (5 + 6) \times 789. \\
8640 &= 12 \times 3 \times (4 + 5 \times 6) \times 7 + 8 \times 9. \\
8641 &= 1^2 + 3 \times 4 \times 5 \times 6 \times (7 + 8 + 9). \\
8642 &= 1 \times 2 + 3 \times 4 \times 5 \times 6 \times (7 + 8 + 9). \\
8643 &= 1 + 2 + 3 \times 4 \times 5 \times 6 \times (7 + 8 + 9). \\
8644 &= -12^3 \times 4 + 5^6 - 78 + 9. \\
8645 &= (12 + 3 + 4) \times (5 + (6 \times 7 + 8) \times 9). \\
8646 &= 1 + (2 + 3) \times (4 + 5 \times (6 \times 7 \times 8 + 9)). \\
8647 &= 1 \times 2 - 34 + (5 + 6) \times 789. \\
8648 &= (1 + 2) \times (3^4 \times 5 + 6) \times 7 + 8 + 9. \\
8649 &= 12 \times (3 + 45 + 6 \times 7) \times 8 + 9. \\
8650 &= 1 + 2 \times (3 + 45) \times 6 \times (7 + 8) + 9. \\
8651 &= 1 \times 2^3 \times 4^5 + 6 \times 78 - 9. \\
8652 &= 12 + 3 \times 4 \times 5 \times 6 \times (7 + 8 + 9). \\
8653 &= 1^2 + 3 \times (4 + 5 \times 6 \times (7 + 89)). \\
8654 &= (12 + 3) \times (4 + 567) + 89. \\
8655 &= 1 + 2 + 3 \times (4 + 5 \times 6 \times (7 + 89)). \\
8656 &= 1 - 2 \times 3 \times 4 + (5 + 6) \times 789. \\
8657 &= 12 \times 3 \times (4 + 5 \times 6) \times 7 + 89. \\
8658 &= 1 \times 2 \times (3^4 + 56 \times 7 + 8) \times 9. \\
8659 &= 1 + 2 \times (3^4 + 56 \times 7 + 8) \times 9. \\
8660 &= 123 + (4^5 + 6 \times 7) \times 8 + 9. \\
8661 &= 12^3 + 4^5 \times 6 + 789. \\
8662 &= (12^3 + 4) \times 5 - 6 + 7 - 8 + 9. \\
8663 &= (1 - 2 - 3) \times 4 + (5 + 6) \times 789. \\
8664 &= (1^2 + 3 \times 4 \times 5 \times 6) \times (7 + 8 + 9). \\
8665 &= (1^2 + 3) \times 4 \times (5 + 67 \times 8) + 9. \\
8666 &= 1 \times 2^3 \times 4^5 + 6 \times (7 + 8 \times 9). \\
8667 &= 1 + 2^3 \times 4^5 + 6 \times (7 + 8 \times 9). \\
8668 &= 1^2 + 3^4 \times (5 + 6 + 7 + 89). \\
8669 &= 1 \times 2^3 \times 4^5 + 6 \times 78 + 9. \\
8670 &= 1 + 2^3 \times 4^5 + 6 \times 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8601 &= (9 + 8 \times 7) \times (6 + 5) \times 4 \times 3 + 21. \\
8602 &= (9 + 8 + 765) \times (4 + 3 \times 2 + 1). \\
8603 &= (9 \times (8 + 7) + 65) \times 43 + 2 + 1. \\
8604 &= 9 \times 87 + 6^5 + 43 + 2 \times 1. \\
8605 &= 9 \times 8 \times 7 + 6^5 + 4 + 321. \\
8606 &= 98 \times 7 + 6^5 + (4 \times 3)^2 \times 1. \\
8607 &= 98 \times 7 + 6^5 + (4 \times 3)^2 + 1. \\
8608 &= 9 \times 87 + 6^5 + (4 + 3)^2 \times 1. \\
8609 &= 9 \times 87 + 6^5 + (4 + 3)^2 + 1. \\
8610 &= (9 \times (8 + 7) \times 6 + 5^4) \times 3 \times 2 \times 1. \\
8611 &= (9 \times (8 + 7) \times 6 + 5^4) \times 3 \times 2 + 1. \\
8612 &= 9 \times 87 \times (6 + 5) + 4 - 3 - 2 \times 1. \\
8613 &= (98 \times 7 + 6 \times 5) \times 4 \times 3 + 21. \\
8614 &= 9 \times 876 + ((5 + 4) \times 3)^2 + 1. \\
8615 &= 9 \times 876 + (5 + 4)^3 + 2 \times 1. \\
8616 &= 9 \times 876 + (5 + 4)^3 + 2 + 1. \\
8617 &= 9 \times 8 + (7 + 65 \times 4) \times 32 + 1. \\
8618 &= 9 \times 87 + 6^5 - 4 + 3 \times 21. \\
8619 &= 9 \times 876 + 5 \times (4 + 3) \times 21. \\
8620 &= 9 + 8 \times 76 + (5 \times 4)^3 + 2 + 1. \\
8621 &= (9 \times (8 + 7) + 65) \times 43 + 21. \\
8622 &= (9 \times 87 + 654) \times 3 \times 2 \times 1. \\
8623 &= 9 \times 87 + 6^5 + 43 + 21. \\
8624 &= 9 \times 87 \times (6 + 5) + 4 + 3 \times 2 + 1. \\
8625 &= 9 \times 87 + 6^5 + 4^3 + 2 \times 1. \\
8626 &= 9 \times 87 + 6^5 + 4 + 3 \times 21. \\
8627 &= 9 \times 87 \times (6 + 5) + 4 \times 3 + 2 \times 1. \\
8628 &= 9 \times 87 \times (6 + 5) + 4 \times 3 + 2 + 1. \\
8629 &= -9 + 8765 - 4 \times 32 + 1. \\
8630 &= (98 + 765) \times (4 + 3 + 2 + 1). \\
8631 &= 98 \times 7 \times 6 + 5 \times 43 \times 21. \\
8632 &= (98 + 7) \times 6 + (5 \times 4)^3 + 2 \times 1. \\
8633 &= (98 + 7) \times 6 + (5 \times 4)^3 + 2 + 1. \\
8634 &= 9 \times 876 + (5 + 4)^3 + 21. \\
8635 &= 9 + 8 + 7 \times (6 + (5 \times (4 + 3))^2) + 1. \\
8636 &= (9 + 8) \times (76 \times 5 + 4 \times 32 \times 1). \\
8637 &= 9 \times 87 \times (6 + 5) + 4 \times 3 \times 2 \times 1. \\
8638 &= 9 + 8 \times 76 + (5 \times 4)^3 + 21. \\
8639 &= 98 + (7 + 6) \times (5^4 + 32 \times 1). \\
8640 &= 9 \times (87 \times 6 + 5 + 432 + 1). \\
8641 &= 9 \times 87 \times (6 + 5) + 4 + 3 + 21. \\
8642 &= 98 + (7 + 65 \times 4) \times 32 \times 1. \\
8643 &= 98 + (7 + 65 \times 4) \times 32 + 1. \\
8644 &= 9 \times 87 + 6^5 + 4^3 + 21. \\
8645 &= 9 \times 87 + 6^5 + 43 \times 2 \times 1. \\
8646 &= 9 \times 87 + 6^5 + 43 \times 2 + 1. \\
8647 &= 9 + 8765 - 4 \times 32 + 1. \\
8648 &= 9 \times (8 + 7) \times 65 - 4 \times 32 + 1. \\
8649 &= 9 \times 8 \times 7 \times 6 + 5^4 \times 3^2 \times 1. \\
8650 &= 9 \times 87 \times (6 + 5) + 4 + 32 + 1. \\
8651 &= 98 \times (76 + 5 + 4) + 321. \\
8652 &= 9 \times 8 + (7 + 6) \times 5 \times 4 \times (32 + 1). \\
8653 &= (9 + 8) \times (76 \times 5 + 4 \times 32 + 1). \\
8654 &= 98 \times 7 + 6^5 + 4^3 \times (2 + 1). \\
8655 &= 9 \times 87 + 6^5 + 4 \times (3 + 21). \\
8656 &= 9 \times (8 \times 7 \times 6 + 5^4) + 3 \times 2 + 1. \\
8657 &= 9 \times 87 \times (6 + 5) + 43 + 2 - 1. \\
8658 &= 9 \times (876 + 54 + 32 \times 1). \\
8659 &= 9 \times 87 \times (6 + 5) + 43 + 2 + 1. \\
8660 &= 9 \times 8 + 76 \times (5 + 4 \times 3^{(2+1)}). \\
8661 &= 9 \times (8 + 7 + 65) \times 4 \times 3 + 21. \\
8662 &= 9 \times 87 \times (6 + 5) + (4 + 3)^2 \times 1. \\
8663 &= (98 \times 7 \times 6 + 5 \times 43) \times 2 + 1. \\
8664 &= (9 + 8 + 7) \times (6 \times (54 + 3 \times 2) + 1). \\
8665 &= 9 - 8 + 76 \times (54 + 3) \times 2 \times 1. \\
8666 &= 9 + 8 + (76 + 5 + 4 \times 3)^2 \times 1. \\
8667 &= 9 \times (876 + 54 + 32 + 1). \\
8668 &= -9 \times 8 - 7 + 6 \times (5 + 4)^3 \times 2 - 1. \\
8669 &= -9 + 8765 - 43 \times 2 - 1. \\
8670 &= (98 + 765 + 4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
8671 &= 1 + (2^3 + 4 + 5) \times (6 + 7 \times 8 \times 9). \\
8672 &= 1 + 23 \times (4 \times (5 + 67) + 89). \\
8673 &= (12 + 3 \times 45) \times (6 \times 7 + 8 + 9). \\
8674 &= -12 + 3 + 4 + (5 + 6) \times 789. \\
8675 &= 1 \times 234 \times (5 \times 6 + 7) + 8 + 9. \\
8676 &= 1 + 234 \times (5 \times 6 + 7) + 8 + 9. \\
8677 &= 1 + 2 \times (3^4 + (5 + 6 \times 78) \times 9). \\
8678 &= 1 - 2 \times 3 + 4 + (5 + 6) \times 789. \\
8679 &= 12 + 3^4 \times (5 + 6 + 7 + 89). \\
8680 &= 1^{234} + (5 + 6) \times 789. \\
8681 &= 1 + 2 + 3 - 4 + (5 + 6) \times 789. \\
8682 &= (12 \times 34 + 5) \times (6 + 7 + 8) + 9. \\
8683 &= 1^{23} \times 4 + (5 + 6) \times 789. \\
8684 &= 1^{23} + 4 + (5 + 6) \times 789. \\
8685 &= (123 \times 4 + 5 + 6 \times 78) \times 9. \\
8686 &= 1^2 \times 3 + 4 + (5 + 6) \times 789. \\
8687 &= 12 \times 3 \times 4 \times 56 + 7 \times 89. \\
8688 &= 1 \times 2 + 3 + 4 + (5 + 6) \times 789. \\
8689 &= 1 + 2 + 3 + 4 + (5 + 6) \times 789. \\
8690 &= 1 + 2 \times 3 + 4 + (5 + 6) \times 789. \\
8691 &= 1^2 \times 3 \times 4 + (5 + 6) \times 789. \\
8692 &= (1 + 2) \times 3 + 4 + (5 + 6) \times 789. \\
8693 &= 1 \times 2 + 3 \times 4 + (5 + 6) \times 789. \\
8694 &= 12 \times 3^4 + (5 + 6) \times 78 \times 9. \\
8695 &= 1 + 2 \times (3 \times 45 + 6 \times 78 \times 9). \\
8696 &= 1 + 23 \times (4 + 5) \times 6 \times 7 - 8 + 9. \\
8697 &= (1 + (2 + 3 \times (45 + 6))) \times 7 \times 8 + 9. \\
8698 &= 12 + 3 + 4 + (5 + 6) \times 789. \\
8699 &= 1 \times (2 + 3) \times 4 + (5 + 6) \times 789. \\
8700 &= 12 \times (3 \times 4 + 5 + 6 + 78 \times 9). \\
8701 &= -1 + 2^3 \times 4^5 + 6 + 7 \times 8 \times 9. \\
8702 &= 1 \times 2^3 \times 4^5 + 6 + 7 \times 8 \times 9. \\
8703 &= 12 + 3 \times 4 + (5 + 6) \times 789. \\
8704 &= 1 + 2 \times 3 \times 4 + (5 + 6) \times 789. \\
8705 &= (12 \times (34 + 56) + 7) \times 8 + 9. \\
8706 &= 1 \times 23 + 4 + (5 + 6) \times 789. \\
8707 &= 1 + 23 + 4 + (5 + 6) \times 789. \\
8708 &= (12^3 - 4) \times 5 + 6 - 7 + 89. \\
8709 &= (12 + 3) \times (4 + (5 + 67) \times 8) + 9. \\
8710 &= (1 + 2)^3 + 4 + (5 + 6) \times 789. \\
8711 &= 1 \times 23 \times (4 + 5) \times 6 \times 7 + 8 + 9. \\
8712 &= 12 \times (34 + 5 + 678 + 9). \\
8713 &= 1^2 \times 34 + (5 + 6) \times 789. \\
8714 &= 1^2 + 34 + (5 + 6) \times 789. \\
8715 &= 12^3 + 4^5 + 67 \times 89. \\
8716 &= 1 + 2 + 34 + (5 + 6) \times 789. \\
8717 &= 1 \times 23 \times (4 + 56 \times 7 - 8 - 9). \\
8718 &= (1 + 23 \times (4 + 5) \times 6) \times 7 + 8 + 9. \\
8719 &= 12 \times 3 + 4 + (5 + 6) \times 789. \\
8720 &= (1 + 2 \times 3 + 4 + 5) \times (67 \times 8 + 9). \\
8721 &= 12 \times (3 + 45 + 678) + 9. \\
8722 &= (1^2 + 34 + 56 + 7) \times 89. \\
8723 &= 1 + 2 \times (3 \times 4 + 5 \times 6 + 7) \times 89. \\
8724 &= (12 + 3) \times (45 + 67 \times 8) + 9. \\
8725 &= 12 + 34 + (5 + 6) \times 789. \\
8726 &= 1 \times 23 \times (4 + 5 \times (67 + 8)) + 9. \\
8727 &= 1 + 23 \times (4 + 5 \times (67 + 8)) + 9. \\
8728 &= 1 + 2 \times 3 \times (4 \times 5 + 6) \times 7 \times 8 - 9. \\
8729 &= (1 + 23 + 4^5 + 6 \times 7) \times 8 + 9. \\
8730 &= 1 \times 234 \times (5 \times 6 + 7) + 8 \times 9. \\
8731 &= 1 + 234 \times (5 \times 6 + 7) + 8 \times 9. \\
8732 &= (1234 + 5 + 6) \times 7 + 8 + 9. \\
8733 &= 12 + (3^4 \times (5 + 6) + 78) \times 9. \\
8734 &= (1 - 2) \times 3 + (4^5 + 67) \times 8 + 9. \\
8735 &= (12^3 + 4) \times 5 + 6 + 78 - 9. \\
8736 &= (12 \times 3 + 4 \times 5) \times (67 + 89). \\
8737 &= 1 \times 2^3 \times 4^5 + 67 \times 8 + 9. \\
8738 &= 1 + 2^3 \times 4^5 + 67 \times 8 + 9. \\
8739 &= (123 + 4 \times 5 \times 6 \times 7 + 8) \times 9. \\
8740 &= 1 \times 23 \times 4 \times (5 \times 6 + 7 \times 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8671 &= (9 + 8) \times (76 + 5 + 4) \times 3 \times 2 + 1. \\
8672 &= (9 \times 8 \times 7 + 6) \times (5 + 4 \times 3) + 2 \times 1. \\
8673 &= (9 + 8 + 76 + 5 \times 4^3) \times 21. \\
8674 &= (98 + 7) \times 65 + 43^2 \times 1. \\
8675 &= (98 + 7) \times 65 + 43^2 + 1. \\
8676 &= 9 + 87 + 65 \times 4 \times (32 + 1). \\
8677 &= 9 \times 87 \times (6 + 5) + 43 + 21. \\
8678 &= 98 + (7 + 6) \times 5 \times 4 \times (32 + 1). \\
8679 &= 9 \times 87 \times (6 + 5) + 4^3 + 2 \times 1. \\
8680 &= 9 \times 87 \times (6 + 5) + 4^3 + 2 + 1. \\
8681 &= 9 + 8 + 76 \times (54 + 3) \times 2 \times 1. \\
8682 &= 9 + 8 + 76 \times (54 + 3) \times 2 + 1. \\
8683 &= -9 \times 8 + 7 + 6 \times (5 + 4)^3 \times 2 \times 1. \\
8684 &= (9 + 8) \times 765 - 4321. \\
8685 &= 98 + 7 + 65 \times 4 \times (32 + 1). \\
8686 &= 98 + 76 \times (5 + 4 \times 3^{(2+1)}). \\
8687 &= 9 \times 87 + 6^5 + 4 \times 32 \times 1. \\
8688 &= 9 \times 87 + 6^5 + 4 \times 32 + 1. \\
8689 &= 9 + (8 \times 7 + 6) \times 5 \times (4 + 3 + 21). \\
8690 &= (9 \times 8 + 7) \times (65 + 43 + 2 \times 1). \\
8691 &= 9 \times (876 + 54) + 321. \\
8692 &= -9 + 876 \times 5 + 4321. \\
8693 &= -9 + 8765 - 4^3 + 2 - 1. \\
8694 &= 9 \times (876 + 5 + 4^3 + 21). \\
8695 &= 98 \times 7 + 6 + (5 \times 4)^3 + 2 + 1. \\
8696 &= 9 \times 8 + 7 \times (6 + (5 \times (4 + 3)))^2 + 1. \\
8697 &= 9 + 8 \times (7 \times 6 + 5 \times 4^3) \times (2 + 1). \\
8698 &= 9 \times 87 \times (6 + 5) + 4^3 + 21. \\
8699 &= 9 \times 87 \times (6 + 5) + 43 \times 2 \times 1. \\
8700 &= (98 + 7 + 65 \times 43) \times (2 + 1). \\
8701 &= (98 + 76) \times (5 + 43 + 2) + 1. \\
8702 &= 98 \times (7 \times 6 + 5) + 4^{(3+2+1)}. \\
8703 &= 9 + 8 + 7 + 6^5 + 43 \times 21. \\
8704 &= 98 \times 76 + (5^4 + 3) \times 2 \times 1. \\
8705 &= 98 \times 76 + (5^4 + 3) \times 2 + 1. \\
8706 &= 9 \times 87 + 6^5 + (4 + 3) \times 21. \\
8707 &= 9 + 8765 - 4 - 3 \times 21. \\
8708 &= 98 \times 76 + 5 \times 4 \times 3 \times 21. \\
8709 &= 9 \times 87 \times (6 + 5) + 4 \times (3 + 21). \\
8710 &= 9 + 876 \times 5 + 4321. \\
8711 &= 9 + 8 + 7 \times 6 \times (5 + 4^3) \times (2 + 1). \\
8712 &= 9 \times 8 \times 7 + 6^5 + 432 \times 1. \\
8713 &= 9 \times 8 \times 7 + 6^5 + 432 + 1. \\
8714 &= 98 \times 7 + 6^5 + 4 \times 3 \times 21. \\
8715 &= 9 \times (8 + 7) + 65 \times 4 \times (32 + 1). \\
8716 &= (9 + 8) \times 7 \times 6 + (5 \times 4)^3 + 2 \times 1. \\
8717 &= (9 + 8) \times 7 \times 6 + (5 \times 4)^3 + 2 + 1. \\
8718 &= 9 + 8 + 7 + 6 \times (5 + 4^3) \times 21. \\
8719 &= (9 \times (8 \times 7 + 65) \times 4 + 3) \times 2 + 1. \\
8720 &= -9 + 8765 - 4 - 32 \times 1. \\
8721 &= 987 + 6 \times (5 + 4 \times 321). \\
8722 &= 9 \times 8 \times 76 + (54 + 3)^2 + 1. \\
8723 &= 98 \times (7 + (6 + 5 \times (4 + 3)) \times 2) + 1. \\
8724 &= (987 + (6 + 5 + 4)^3) \times 2 \times 1. \\
8725 &= (987 + (6 + 5 + 4)^3) \times 2 + 1. \\
8726 &= 987 + 6^5 - 4 - 32 - 1. \\
8727 &= 9 + (8 + 7 \times 6 \times (5 + 4^3)) \times (2 + 1). \\
8728 &= 9 + 8765 - 43 - 2 - 1. \\
8729 &= 9 + 8 \times (765 + 4 + 321). \\
8730 &= (9 + 87 \times (6 + 5) + 4) \times 3^2 \times 1. \\
8731 &= (9 + 87 \times (6 + 5) + 4) \times 3^2 + 1. \\
8732 &= (9 \times 8 + 76) \times (54 + 3 + 2 \times 1). \\
8733 &= (9 \times 8 + 76) \times (54 + 3 + 2) + 1. \\
8734 &= (9 \times 87 + 6 + 5) \times (4 + 3 \times 2 + 1). \\
8735 &= (9 + 8) \times 7 \times 6 + (5 \times 4)^3 + 21. \\
8736 &= 9 \times 8 + 76 \times (54 + 3) \times 2 \times 1. \\
8737 &= 98 \times 76 + 5 + 4 \times 321. \\
8738 &= (9 + 8) \times (76 + 5 + 432 + 1). \\
8739 &= 9 \times (87 \times (6 + 5) + 4 \times 3 + 2 \times 1). \\
8740 &= ((98 + 76) \times 5 + 4) \times (3^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
8741 &= 1 + 23 \times 4 \times (5 \times 6 + 7 \times 8 + 9). \\
8742 &= 123 \times (4 + 5 + 6 + 7 \times 8) + 9. \\
8743 &= 1 + 2 + 3 + (4^5 + 67) \times 8 + 9. \\
8744 &= (12^3 + 4) \times 5 + 67 + 8 + 9. \\
8745 &= (12^3 + 4) \times 5 + 6 + 7 + 8 \times 9. \\
8746 &= 1 + 2^3 + (4^5 + 67) \times 8 + 9. \\
8747 &= 1 \times 234 \times (5 \times 6 + 7) + 89. \\
8748 &= 12^3 + 45 \times (67 + 89). \\
8749 &= 1 + 2 \times 3^4 \times (5 \times 6 + 7 + 8 + 9). \\
8750 &= 1 \times 2^3 \times 4^5 + (6 + 7 \times 8) \times 9. \\
8751 &= 1 + 2^3 \times 4^5 + (6 + 7 \times 8) \times 9. \\
8752 &= 12 + 3 + (4^5 + 67) \times 8 + 9. \\
8753 &= (12^3 + 4) \times 5 + 6 + 78 + 9. \\
8754 &= (1 + (23 \times 4 + 5) \times 6) \times (7 + 8) + 9. \\
8755 &= 1 + 2 \times (3 \times (4 \times 5 + 6) \times 7 \times 8 + 9). \\
8756 &= 1 \times 2 \times (-3 + 4 + 56 \times 78 + 9). \\
8757 &= 1^2 \times 3^4 \times (5 \times 6 + 78) + 9. \\
8758 &= 1^2 + 3^4 \times (5 \times 6 + 78) + 9. \\
8759 &= 1 \times 2 + 3^4 \times (5 \times 6 + 78) + 9. \\
8760 &= 1^2 \times 3^4 + (5 + 6) \times 789. \\
8761 &= 1^2 + 3^4 + (5 + 6) \times 789. \\
8762 &= 1 \times 2 + 3^4 + (5 + 6) \times 789. \\
8763 &= 12 \times (3 + 4) + (5 + 6) \times 789. \\
8764 &= 1 \times 2 \times (34 \times 5 + 6 \times 78 \times 9). \\
8765 &= 1 + 2 \times (34 \times 5 + 6 \times 78 \times 9). \\
8766 &= 12 \times 3 \times 4 \times 56 + 78 \times 9. \\
8767 &= 1 + 23 \times (4 + 5) \times 6 \times 7 + 8 \times 9. \\
8768 &= 1 \times 2 \times (3 + 4 + 56 \times 78 \times 9). \\
8769 &= 12 + 3^4 \times (5 \times 6 + 78) + 9. \\
8770 &= 1 + 2 \times (3 \times 4 + 56 \times 78) + 9. \\
8771 &= 1 \times 23 \times 4 + (5 + 6) \times 789. \\
8772 &= 12 + 3^4 + (5 + 6) \times 789. \\
8773 &= 12 \times 3 + (4^5 + 67) \times 8 + 9. \\
8774 &= (12^3 + 4) \times 5 + 6 \times 7 + 8 \times 9. \\
8775 &= 1 + 2 + (3^4 + 5) \times (6 + 7 + 89). \\
8776 &= 1 + (2 + 3 + 4 + 56) \times (7 + 8) \times 9. \\
8777 &= (1 \times 2 + 3 + 4^5 + 67) \times 8 + 9. \\
8778 &= 1 \times 2 \times (3 \times 4 + 56 \times 78 \times 9). \\
8779 &= 1 + 2 \times (3 \times 4 + 56 \times 78 \times 9). \\
8780 &= 1 \times 2 + 3 \times (45 \times 67 - 89). \\
8781 &= (1 + 2) \times 34 + (5 + 6) \times 789. \\
8782 &= -12^3 \times 4 + 5^6 + 78 - 9. \\
8783 &= 1 \times 23 \times (4 + 5) \times 6 \times 7 + 89. \\
8784 &= 1 + 23 \times (4 + 5) \times 6 \times 7 + 89. \\
8785 &= 1^2 + 3 \times 4 \times (5 \times 6 + 78 \times 9). \\
8786 &= 1 \times 2 + 3 \times 4 \times (5 \times 6 + 78 \times 9). \\
8787 &= (1234 + 5 + 6) \times 7 + 8 \times 9. \\
8788 &= -1 + 23 + (4^5 - 6 \times 7 - 8) \times 9. \\
8789 &= (1 + 2 \times 3 + 4) \times (5 + 6 \times 7) \times (8 + 9). \\
8790 &= (1 + 23 \times (4 + 5) \times 6) \times 7 + 89. \\
8791 &= (12^3 + 4) \times 5 + 6 \times 7 + 89. \\
8792 &= (12 + 3) \times 45 \times (6 + 7) + 8 + 9. \\
8793 &= (1 + 2 \times 3 + 4^5 + 67) \times 8 + 9. \\
8794 &= 1234 + 56 \times (7 + 8) \times 9. \\
8795 &= -12^3 \times 4 + 5^6 - 7 + 89. \\
8796 &= 12 + 3 \times 4 \times (5 \times 6 + 78 \times 9). \\
8797 &= 1^2 - 3 \times 4 \times (56 - 789). \\
8798 &= 123 - 4 + (5 + 6) \times 789. \\
8799 &= (12^3 + 4) \times 5 + 67 + 8 \times 9. \\
8800 &= (1 + 2 \times 3 + 4) \times (5 + 6 + 789). \\
8801 &= (123 + 4 + 5 \times 6) \times 7 \times 8 + 9. \\
8802 &= 1^2 \times 3 \times (45 \times 6 + 7 \times 8) \times 9. \\
8803 &= 1^2 + 3 \times (45 \times 6 + 7 \times 8) \times 9. \\
8804 &= (1234 + 5 + 6) \times 7 + 89. \\
8805 &= 1 + 2 + 3 \times (45 \times 6 + 7 \times 8) \times 9. \\
8806 &= 123 + 4 + (5 + 6) \times 789. \\
8807 &= 1 + (23 + 45 + 6) \times 7 \times (8 + 9). \\
8808 &= 12 \times (3^4 + 5 \times 6 + 7 \times 89). \\
8809 &= (1 + 2^3 + 4^5 + 67) \times 8 + 9. \\
8810 &= 1 + 2^3 \times 4^5 - 6 + 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8741 &= 9 \times 87 \times (6 + 5) + 4 \times 32 \times 1. \\
8742 &= 9 \times 87 \times (6 + 5) + 4 \times 32 + 1. \\
8743 &= 98 \times (7 \times (6 + 5) + 4 \times 3) + 21. \\
8744 &= 9 + 8 \times 7 + 6^5 + 43 \times 21. \\
8745 &= 9 \times 8 \times (7 + 6) \times (5 + 4) + 321. \\
8746 &= (9 + 876) \times 5 + 4321. \\
8747 &= 98 + (76 + 5 + 4 \times 3)^2 \times 1. \\
8748 &= 9 \times (87 \times (6 + 5) + (4 + 3) \times 2 + 1). \\
8749 &= 9 \times (876 + (5 + 43) \times 2) + 1. \\
8750 &= (9 + 8 \times 7 \times 6 + 5) \times (4 \times 3 \times 2 + 1). \\
8751 &= 9 \times 87 + 6^5 + 4^3 \times (2 + 1). \\
8752 &= 9 + 8765 - 43 + 21. \\
8753 &= 9 + 8 \times (7 \times 6 \times (5 \times 4 + 3 \times 2) + 1). \\
8754 &= 9 \times 8 + 7 \times 6 + 5 \times (4 \times 3)^{(2+1)}. \\
8755 &= (9 + 8) \times (7 \times (65 + 4) + 32 \times 1). \\
8756 &= (9 + 8) \times (7 \times (65 + 4) + 32) + 1. \\
8757 &= (98 + 7 + 6 \times 5 + 4) \times 3 \times 21. \\
8758 &= 9 \times 8 + 7 + 6^5 + 43 \times 21. \\
8759 &= 9 + 8 \times 7 + 6 \times (5 + 4^3) \times 21. \\
8760 &= (98 + 7 + 65 \times 4) \times (3 + 21). \\
8761 &= 9 + 8765 - 4 \times 3 - 2 + 1. \\
8762 &= 98 + 76 \times (54 + 3) \times 2 \times 1. \\
8763 &= 987 + 6 \times 54 \times (3 + 21). \\
8764 &= 9 + 8765 - 4 - 3 - 2 - 1. \\
8765 &= 9 + 8 + (76 + 5) \times 4 \times 3^{(2+1)}. \\
8766 &= 9 \times 8 + 7 \times 6 \times (5 + 4^3) \times (2 + 1). \\
8767 &= 9 \times ((8 \times 7 + 65) \times 4 + 3) \times 2 + 1. \\
8768 &= (9 \times 8 + (7 + 6) \times 5) \times (43 + 21). \\
8769 &= (9 \times 8 + 7) \times (65 + 43 + 2 + 1). \\
8770 &= (9 \times 8 + (7 + 6) \times 5) \times 4^3 + 2 \times 1. \\
8771 &= (98 + 76 + 5) \times (4 + 3)^2 \times 1. \\
8772 &= 987 + 6^5 + 4 + 3 + 2 \times 1. \\
8773 &= 987 + 6^5 + 4 + 3 + 2 + 1. \\
8774 &= 987 + 6^5 + 4 + 3 \times 2 + 1. \\
8775 &= 9 + 87 + 6^5 + 43 \times 21. \\
8776 &= 987 + 6^5 + 4 + 3^2 \times 1. \\
8777 &= 987 + 6^5 + 4 + 3^2 + 1. \\
8778 &= 987 + 6^5 + 4 \times 3 + 2 + 1. \\
8779 &= 9 + 8 + (7 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
8780 &= 98 + 7 \times 6 + 5 \times (4 \times 3)^{(2+1)}. \\
8781 &= 9 \times (8 + 7) + 6 + 5 \times (4 \times 3)^{(2+1)}. \\
8782 &= 9 + 8765 + 4 + 3 + 2 - 1. \\
8783 &= 9 + 8765 + 4 + 3 + 2 \times 1. \\
8784 &= 98 + 7 + 6^5 + 43 \times 21. \\
8785 &= 9 + 8765 + 4 + 3 \times 2 + 1. \\
8786 &= 9 \times (8 + 7) \times 65 + 4 + 3 \times 2 + 1. \\
8787 &= 98 \times 7 + 6^5 + 4 + 321. \\
8788 &= 987 + 6^5 + 4 \times 3 \times 2 + 1. \\
8789 &= 9 + 8765 + 4 \times 3 + 2 + 1. \\
8790 &= 9 \times (8 + 7) \times 65 + 4 \times 3 + 2 + 1. \\
8791 &= 987 + 6^5 + 4 + 3 + 21. \\
8792 &= 9 \times 876 + 5 + 43 \times 21. \\
8793 &= (9 + 876 \times 5 + 4 + 3) \times 2 + 1. \\
8794 &= 9 + 8765 + 4 \times (3 + 2 \times 1). \\
8795 &= 9 + 8765 + 4 \times (3 + 2) + 1. \\
8796 &= 987 + 6^5 + 4 \times 3 + 21. \\
8797 &= 98 \times 76 + 5 + 4^3 \times 21. \\
8798 &= 9 + 8765 + 4 \times 3 \times 2 \times 1. \\
8799 &= 9 + 8765 + 4 \times 3 \times 2 + 1. \\
8800 &= 987 + 6^5 + 4 + 32 + 1. \\
8801 &= 9 + 8 \times (7 + 6 + 543 \times 2 \times 1). \\
8802 &= 9 + 8765 + 4 + 3 + 21. \\
8803 &= 9 \times (8 + 7) \times 65 + 4 + 3 + 21. \\
8804 &= 987 + 6^5 + 43 - 2 \times 1. \\
8805 &= 9 + 8765 + 4 + 3^{(2+1)}. \\
8806 &= 9 \times (8 + 765) + 43^2 \times 1. \\
8807 &= 9 + 8765 + 4 \times 3 + 21. \\
8808 &= 987 + 6^5 + 43 + 2 \times 1. \\
8809 &= 987 + 6^5 + 43 + 2 + 1. \\
8810 &= 9 + 8765 + 4 + 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
8811 &= (1 \times 23 + 4 + 5 + 67) \times 89. \\
8812 &= 1^2 + 3 \times (4 \times 5 + 6 + 7) \times 89. \\
8813 &= 1 \times 2 \times (34 + 56 + 78) + 9. \\
8814 &= 12 + 3 \times (45 \times 6 + 7 \times 8) \times 9. \\
8815 &= 1 + 2 \times (34 + 5) \times ((6 + 7) \times 8 + 9). \\
8816 &= (12^3 + 4) \times 5 + 67 + 89. \\
8817 &= (1 + 2) \times (3 \times 4 \times 5 \times 6 + 7) \times 8 + 9. \\
8818 &= 12 + 34 \times (5 \times (6 \times 7 + 8) + 9). \\
8819 &= -1 + ((2 + 3)^4 + 5) \times (6 + 7 - 8 + 9). \\
8820 &= 12 \times (3 + 45 + 678 + 9). \\
8821 &= 1 \times 2^3 \times 4^5 + 6 + 7 \times 89. \\
8822 &= 1 + 2^3 \times 4^5 + 6 + 7 \times 89. \\
8823 &= (1^2 + 3 + 4 + 5) \times 678 + 9. \\
8824 &= 1 + (2 + 3^4 + 5 \times 6) \times 78 + 9. \\
8825 &= (12 \times 3 + 45 + 6 \times 7) \times 8 + 9. \\
8826 &= 1 + (23 \times 45 + 67) \times 8 + 9. \\
8827 &= (1 + 2^3 + 4) \times (56 + 7 \times 89). \\
8828 &= 1 - 2 - 3^4 \times (5 - 6 \times 7 - 8 \times 9). \\
8829 &= 12 \times 34 \times 5 + 6789. \\
8830 &= 1 \times 2^{(3+4+5)} + 6 \times 789. \\
8831 &= 1 \times 2 + 3^4 \times (5 \times 6 + 7 + 8 \times 9). \\
8832 &= 1 + 2 + 3^4 \times (5 \times 6 + 7 + 8 \times 9). \\
8833 &= (1 + 23 \times 45 + 67) \times 8 + 9. \\
8834 &= 1 \times 2 + (3^4 + 5 + 6) \times (7 + 89). \\
8835 &= 1 \times 2^{(3 \times 4)} + 5 + 6 \times 789. \\
8836 &= 1 + 2^{(3 \times 4)} + 5 + 6 \times 789. \\
8837 &= 12^3 + (4^5 - 6) \times 7 - 8 - 9. \\
8838 &= 1 \times 2 \times (3 + 4 \times 5 + 6 \times 78) \times 9. \\
8839 &= 1^2 + 3^4 \times (5 + (6 + 7) \times 8) + 9. \\
8840 &= 1 \times 2 \times (3 \times 4 + 56) \times (7 \times 8 + 9). \\
8841 &= 1 \times 2 \times 3^4 + (5 + 6) \times 789. \\
8842 &= 1 + 2 \times 3^4 + (5 + 6) \times 789. \\
8843 &= 1 \times 2 \times (3 + 4^5) + 6789. \\
8844 &= 1 + 2 \times (3 + 4^5) + 6789. \\
8845 &= 1 + 2 \times 3 \times (4^5 + (6 \times 7 + 8) \times 9). \\
8846 &= 1 \times 2 \times (3 + 4 \times 5 \times (6 + 7) \times (8 + 9)). \\
8847 &= (12 \times 34 + 567 + 8) \times 9. \\
8848 &= (1^2 + 3^4 + 5 \times 6) \times (7 + 8 \times 9). \\
8849 &= (12^3 + 4) \times 5 + (6 + 7 + 8) \times 9. \\
8850 &= (12 + 3) \times (45 + 67 \times 8 + 9). \\
8851 &= (1 + 2)(3 + 4) + 56 \times 7 \times (8 + 9). \\
8852 &= 1 + (2 \times 3^4 + 5) \times (6 + 7 \times 8 - 9). \\
8853 &= 12 \times 3 \times 4 \times 56 + 789. \\
8854 &= 12^3 + 4^5 + 678 \times 9. \\
8855 &= 123 \times 4 \times (5 + 6 + 7) + 8 - 9. \\
8856 &= (12 \times 3 + 45 + 6 \times 7) \times 8 \times 9. \\
8857 &= 1 + (2 \times 3)^4 + 56 \times (7 + 8) \times 9. \\
8858 &= (1 \times 2 + 3) \times 4^5 + 6 \times 7 \times 89. \\
8859 &= 1 + (2 + 3) \times 4^5 + 6 \times 7 \times 89. \\
8860 &= 123 + (4^5 + 67) \times 8 + 9. \\
8861 &= (123 + 4 + 5) \times 67 + 8 + 9. \\
8862 &= 12^3 \times 4 + 5 \times 6 \times (7 \times 8 + 9). \\
8863 &= 1 \times 2^3 \times (4^5 + 6) + 7 \times 89. \\
8864 &= (12 + 3) \times 45 \times (6 + 7) + 89. \\
8865 &= (1234 + 5 \times 6) \times 7 + 8 + 9. \\
8866 &= 12^3 + (4^5 + 6) \times 7 - 8 \times 9. \\
8867 &= 1 \times 2^3 \times 4^5 + (67 + 8) \times 9. \\
8868 &= 12 + 3 \times (4 + 5 \times 6 + 7) \times 8 \times 9. \\
8869 &= (1 + (2 \times 3)^4 - 5 \times 6) \times 7 \times (-8 + 9). \\
8870 &= (1 + (2 \times 3)^4 - 5 \times 6) \times 7 - 8 + 9. \\
8871 &= (1 + 2^3) \times 4^5 - 6 \times 7 \times 8 - 9. \\
8872 &= 1 \times 2^3 \times (4^5 + 6 + 7 + 8 \times 9). \\
8873 &= 123 \times 4 \times (5 + 6 + 7) + 8 + 9. \\
8874 &= 12 \times 345 + 6 \times 789. \\
8875 &= 1 + 2 \times 3 \times (45 + 6 \times 7) \times (8 + 9). \\
8876 &= 1 \times 2 + 3 \times (4 + 5 \times 6) \times (78 + 9). \\
8877 &= 1 + 2 + 3 \times (4 + 5 \times 6) \times (78 + 9). \\
8878 &= -1 + 2^3 \times 4^5 + 678 + 9. \\
8879 &= 1 \times 2^3 \times 4^5 + 678 + 9. \\
8880 &= 1 + 2^3 \times 4^5 + 678 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8811 &= 9 \times 87 + 6^5 + 4 \times 3 \times 21. \\
8812 &= 9 \times (8 + 7) \times 65 + 4 + 32 + 1. \\
8813 &= 987 + 6^5 + (4 + 3)^2 + 1. \\
8814 &= 9 \times (8 + 7) + 6^5 + 43 \times 21. \\
8815 &= 9 \times (8 + 7) \times 65 + 4 \times (3^2 + 1). \\
8816 &= 9 \times ((8 + 7) \times 65 + 4) + 3 + 2 \times 1. \\
8817 &= 9 \times ((8 + 7) \times 65 + 4) + 3 \times 2 \times 1. \\
8818 &= 9 \times ((8 + 7) \times 65 + 4) + 3 \times 2 + 1. \\
8819 &= 9 + 8765 + 43 + 2 \times 1. \\
8820 &= 9 + 8765 + 43 + 2 + 1. \\
8821 &= 9 \times (8 + 7) \times 65 + 43 + 2 + 1. \\
8822 &= 98 \times (7 \times 6 + 5 + 43) + 2 \times 1. \\
8823 &= 9 + 8765 + (4 + 3)^2 \times 1. \\
8824 &= 9 \times 8 \times 7 + 65 \times 4 \times 32 \times 1. \\
8825 &= 9 \times 8 \times 7 + 65 \times 4 \times 32 + 1. \\
8826 &= (9 + 8) \times (7 \times 65 + 4^3) + 2 + 1. \\
8827 &= 987 + 6^5 + 43 + 21. \\
8828 &= 9 \times 8 + 7 + 6 \times (5 + 4)^3 \times 2 + 1. \\
8829 &= 987 + 6^5 + 4^3 + 2 \times 1. \\
8830 &= 987 + 6^5 + 4 + 3 \times 21. \\
8831 &= 9 \times (8 + 7) \times 6 + (5 \times 4)^3 + 21. \\
8832 &= 9 \times (876 + 5) + 43 \times 21. \\
8833 &= (9 + 87) \times (6 + 54 + 32) + 1. \\
8834 &= 9 \times 8 + (7 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
8835 &= 9 \times ((8 + 7) \times 65 + 4) + 3 + 21. \\
8836 &= (9 + 8 \times 7 + 6 + 5 \times 4 + 3)^2 \times 1. \\
8837 &= (9 + 8 \times 7 + 6 + 5 \times 4 + 3)^2 + 1. \\
8838 &= 9 + 8765 + 43 + 21. \\
8839 &= 9 \times (8 + 7) \times 65 + 43 + 21. \\
8840 &= 9 + 8765 + 4^3 + 2 \times 1. \\
8841 &= 9 + 8765 + 4 + 3 \times 21. \\
8842 &= 9 \times (8 + 7) \times 65 + 4 + 3 \times 21. \\
8843 &= 9 \times ((8 + 7) \times 65 + 4) + 32 \times 1. \\
8844 &= 9 + 87 + 6 \times (5 + 4)^3 \times 2 \times 1. \\
8845 &= 9 + 87 + 6 \times (5 + 4)^3 \times 2 + 1. \\
8846 &= 98 + (76 + 5) \times 4 \times 3^{(2+1)}. \\
8847 &= 9 \times (8 \times 76 + 54 + 321). \\
8848 &= 987 + 6^5 + 4^3 + 21. \\
8849 &= 987 + 6^5 + 43 \times 2 \times 1. \\
8850 &= 987 + 6^5 + 43 \times 2 + 1. \\
8851 &= 9 + 8 + 7 \times (6 + (5^4 + 3) \times 2) \times 1. \\
8852 &= 9 + 8 + 7 \times (6 + (5^4 + 3) \times 2) + 1. \\
8853 &= 98 + 7 + 6 \times (5 + 4)^3 \times 2 \times 1. \\
8854 &= 98 + 7 + 6 \times (5 + 4)^3 \times 2 + 1. \\
8855 &= 9 + (876 \times 5 + 43) \times 2 \times 1. \\
8856 &= 9 + (876 \times 5 + 43) \times 2 + 1. \\
8857 &= (9 + 8) \times (7 \times 65 + 4^3 + 2 \times 1). \\
8858 &= 9 + 8 \times 7 \times (6 \times 5 + 4 \times 32) + 1. \\
8859 &= 9 + 8765 + 4^3 + 21. \\
8860 &= 9 + 8765 + 43 \times 2 \times 1. \\
8861 &= 9 + 8765 + 43 \times 2 + 1. \\
8862 &= 9 \times (8 + 7) \times 65 + 43 \times 2 + 1. \\
8863 &= -9 + 87 \times (6 \times 5 + 4) \times 3 - 2 \times 1. \\
8864 &= (9 + 876 \times 5 + 43) \times 2 \times 1. \\
8865 &= 9 \times 87 \times (6 + 5) + 4 \times 3 \times 21. \\
8866 &= 9 + 8 \times 7 + 6^5 + 4(3 + 2) + 1. \\
8867 &= (9 + 8) \times 7 + 6 \times 54 \times 3^{(2+1)}. \\
8868 &= (9 + 8) \times 7 + 6 \times (5 + 4)^3 \times 2 + 1. \\
8869 &= 9 + (8 \times 7 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
8870 &= 9 + 8765 + 4 \times (3 + 21). \\
8871 &= 987 + 6^5 + 4 \times 3^{(2+1)}. \\
8872 &= (98 \times 7 \times 6 + 5 \times 4^3) \times 2 \times 1. \\
8873 &= (98 \times 7 \times 6 + 5 \times 4^3) \times 2 + 1. \\
8874 &= 9 \times 8 \times 76 + 54 \times 3 \times 21. \\
8875 &= (9 + 8 \times 7 + 6) \times 5 \times (4 \times 3 \times 2 + 1). \\
8876 &= ((9 + 8) \times 7 + 6) \times (5 + 4^3 + 2) + 1. \\
8877 &= 98 \times 7 \times 6 + (5 + 4^3)^2 \times 1. \\
8878 &= 98 \times 7 \times 6 + (5 + 4^3)^2 + 1. \\
8879 &= 9 + 8 + 7 \times (6 + 5 \times 4 \times 3 \times 21). \\
8880 &= (9 \times 8 + 76) \times (54 + 3 + 2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
8881 &= 1 \times (2 + 3^4) \times (5 + 6 + 7 + 89). \\
8882 &= 1 + (2 + 3^4) \times (5 + 6 + 7 + 89). \\
8883 &= 12^3 + (4 + 5) \times (6 + 789). \\
8884 &= 1 + (2 + 3 \times 4 + 5) \times 6 \times 78 - 9. \\
8885 &= -1 + 2 \times 3 \times (-4 + (5 + 6) \times (7 + 8) \times 9). \\
8886 &= 12 + 3 \times (4 + 5 \times 6) \times (78 + 9). \\
8887 &= 1 \times 23 \times ((4 + 5) \times 6 \times 7 + 8) + 9. \\
8888 &= (1 + 2^3 + 4) \times (5 + 678) + 9. \\
8889 &= 1 + 2^3 \times 4^5 - 6 + 78 \times 9. \\
8890 &= (123 + 4) \times 5 \times (6 + 7 - 8 + 9). \\
8891 &= ((1 + 2) \times 34 \times 5 + 6 + 7) \times (8 + 9). \\
8892 &= 1 \times 2 \times (34 + 5) \times (6 \times 7 + 8 \times 9). \\
8893 &= 1 + 2 \times (34 + 5) \times (6 \times 7 + 8 \times 9). \\
8894 &= 1 + 2 + ((3^4 + 5) \times 6 + 7) \times (8 + 9). \\
8895 &= (-1 + 23 + 4^5 + 67) \times 8 - 9. \\
8896 &= 1 \times 2^3 \times (4^5 + 6 - 7 + 89). \\
8897 &= (12 \times (3^4 + 5 + 6) + 7) \times 8 + 9. \\
8898 &= (1 + 2) \times ((3^4 \times 5 + 6) \times 7 + 89). \\
8899 &= -1 + 2^3 \times 4^5 + 6 + 78 \times 9. \\
8900 &= 1 \times 2^3 \times 4^5 + 6 + 78 \times 9. \\
8901 &= 1 + 2^3 \times 4^5 + 6 + 78 \times 9. \\
8902 &= 1 + 2 \times (3 + (4 + 5) \times 6) \times 78 + 9. \\
8903 &= 12 + ((3^4 + 5) \times 6 + 7) \times (8 + 9). \\
8904 &= (1 + 2) \times (3 + 4) \times (5 \times 67 + 89). \\
8905 &= 1^2 \times (3^4 + 56) \times (7 \times 8 + 9). \\
8906 &= 1 \times 2^3 \times 4^5 + 6 \times 7 \times (8 + 9). \\
8907 &= 1 + 2^3 \times 4^5 + 6 \times 7 \times (8 + 9). \\
8908 &= 1 + 2 \times (3^4 + 56 \times 78) + 9. \\
8909 &= 1 + (23 + 45) \times (6 \times 7 + 89). \\
8910 &= (12 + 3 + 45 + 6) \times (7 + 8) \times 9. \\
8911 &= 1 + (2 + 34 + 5 \times 6) \times (7 + 8) \times 9. \\
8912 &= 1 \times 2 + (3 \times 4 \times 5 + 6) \times (7 + 8) \times 9. \\
8913 &= 1 \times 234 + (5 + 6) \times 789. \\
8914 &= 1 + 234 + (5 + 6) \times 789. \\
8915 &= 1 \times 2^{(3 \times 4)} - 5 + 67 \times 8 \times 9. \\
8916 &= (123 + 4 + 5) \times 67 + 8 \times 9. \\
8917 &= 12 + (3^4 + 56) \times (7 \times 8 + 9). \\
8918 &= 1 \times 2^3 + (4^5 - 6 \times 7 + 8) \times 9. \\
8919 &= 1 \times 2 \times 3^4 \times (5 + 6 \times 7 + 8) + 9. \\
8920 &= (1234 + 5 \times 6) \times 7 + 8 \times 9. \\
8921 &= (1 \times 23 + 4^5 + 67) \times 8 + 9. \\
8922 &= 12 + (3 \times 4 \times 5 + 6) \times (7 + 8) \times 9. \\
8923 &= -1 + 23 \times (4 + 5 \times (67 + 8) + 9). \\
8924 &= 1 \times 23 \times (4 + 5 \times (67 + 8) + 9). \\
8925 &= 1 \times 2^{(3 \times 4)} + 5 + 67 \times 8 \times 9. \\
8926 &= 1 + 2^{(3 \times 4)} + 5 + 67 \times 8 \times 9. \\
8927 &= 1 \times (2 + 3^4 + 5 \times 6) \times (7 + 8 \times 9). \\
8928 &= 123 \times 4 \times (5 + 6 + 7) + 8 \times 9. \\
8929 &= 1 + 2 \times (3 + 45) \times (6 + 78 + 9). \\
8930 &= (-1 + (23 - 4) \times 5) \times ((6 + 7) \times 8 - 9). \\
8931 &= (1 + 2^3)^4 + 5 \times 6 \times (7 + 8 \times 9). \\
8932 &= (1 + 23 + 4) \times (5 \times (6 + 7 \times 8) + 9). \\
8933 &= (123 + 4 + 5) \times 67 + 89. \\
8934 &= 1 \times 2 \times 3 \times (4 + (5 + 6) \times (7 + 8) \times 9). \\
8935 &= (1^2 + 3)^4 + (5 + 6) \times 789. \\
8936 &= 1 \times 2^3 \times (4^5 + 6 + 78 + 9). \\
8937 &= (1234 + 5 \times 6) \times 7 + 89. \\
8938 &= (1^2 + 3^4) \times (5 \times 6 + 7 + 8 \times 9). \\
8939 &= 12^3 + (4^5 + 6) \times 7 - 8 + 9. \\
8940 &= (12 + 3) \times 4 \times (5 + 6 \times (7 + 8 + 9)). \\
8941 &= -1 + 2^3 \times (4^5 + 6) + 78 \times 9. \\
8942 &= 1 \times 2^3 \times (4^5 + 6) + 78 \times 9. \\
8943 &= 1 + 2^3 \times (4^5 + 6) + 78 \times 9. \\
8944 &= -12 + 3 \times 45 \times 67 - 89. \\
8945 &= 123 \times 4 \times (5 + 6 + 7) + 89. \\
8946 &= 1 \times 2 \times (3 + 4) \times (567 + 8 \times 9). \\
8947 &= 1 + 2 \times (3 + 4) \times (567 + 8 \times 9). \\
8948 &= 1 \times 2^3 \times 4^5 + (6 + 78) \times 9. \\
8949 &= 1 + 2^3 \times 4^5 + (6 + 78) \times 9. \\
8950 &= -1 - 2 + (3^4 + 5) \times (6 + 7) \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8881 &= (9 \times 8 + 76) \times (54 + 3 \times 2) + 1. \\
8882 &= (9 \times 8 + 76) \times 5 \times 4 \times 3 + 2 \times 1. \\
8883 &= (9 + 87 + 6 \times 54 + 3) \times 21. \\
8884 &= 9 \times 87 + 6^5 + 4 + 321. \\
8885 &= 9 + 87 \times 6 \times (5 + 4 \times 3) + 2 \times 1. \\
8886 &= 9 + 87 \times 6 \times (5 + 4 \times 3) + 2 + 1. \\
8887 &= 9 + 876 + (5 \times 4)^3 + 2 \times 1. \\
8888 &= 9 + 876 + (5 \times 4)^3 + 2 + 1. \\
8889 &= 9 \times 8 \times 7 + 65 \times 43 \times (2 + 1). \\
8890 &= 98 \times 7 \times (6 + 5) + 4^3 \times 21. \\
8891 &= 987 + 6^5 + 4 \times 32 \times 1. \\
8892 &= 987 + 6^5 + 4^3 \times 2 + 1. \\
8893 &= 9 + 8 + 7 \times (6 + 5^4 + 3) \times 2 \times 1. \\
8894 &= 98 \times 7 + 6^5 + 432 \times 1. \\
8895 &= 98 \times 7 + 6^5 + 432 + 1. \\
8896 &= 9 + 87 + 6^5 + 4^3 \times 2 \times 1. \\
8897 &= 98 \times 76 + (5 + 4^3) \times 21. \\
8898 &= 9 + (876 \times 5 + 4^3) \times 2 + 1. \\
8899 &= -9 - 8 \times 7 \times 6 + 5 \times 43^2 - 1. \\
8900 &= (9 + 876 + 5) \times (4 + 3 + 2 + 1). \\
8901 &= (9 \times 8 + 76) \times 5 \times 4 \times 3 + 21. \\
8902 &= 9 + 8765 + 4 \times 32 \times 1. \\
8903 &= 9 + 8765 + 4 \times 32 + 1. \\
8904 &= 9 \times (8 + 7) \times 65 + 4 \times 32 + 1. \\
8905 &= 98 \times (7 + 65) + 43^2 \times 1. \\
8906 &= 98 \times 76 + 54 \times 3^{(2+1)}. \\
8907 &= (9 + 876 \times 5 + 4^3) \times 2 + 1. \\
8908 &= 987 + 6^5 + (4 \times 3)^2 + 1. \\
8909 &= 9 + 8 + 76 \times (54 + 3 \times 21). \\
8910 &= 987 + 6^5 + (4 + 3) \times 21. \\
8911 &= (9 \times 8 \times (7 + 6) + 54) \times 3^2 + 1. \\
8912 &= 9 \times (8 + 7) \times (6 + 5 \times 4 \times 3) + 2 \times 1. \\
8913 &= 9 + 8 \times (7 \times 6 \times 5 + 43 \times 21). \\
8914 &= 9 \times 876 + 5 + 4^3 \times 2 + 1. \\
8915 &= 9 \times 8 + 7 + (6 \times 5 + 4^3)^2 \times 1. \\
8916 &= 9 \times 8 + 7 + (6 \times 5 + 4^3)^2 + 1. \\
8917 &= 9 - 8 \times 7 \times 6 + 5 \times 43^2 - 1. \\
8918 &= 9 + 8765 + (4 \times 3)^2 \times 1. \\
8919 &= 9 + 8765 + (4 \times 3)^2 + 1. \\
8920 &= 9 \times (8 + 7) \times 65 + (4 \times 3)^2 + 1. \\
8921 &= 9 + 8765 + (4 + 3) \times 21. \\
8922 &= 9 \times (8 + 7) \times 65 + (4 + 3) \times 21. \\
8923 &= -9 \times 8 + 7 \times (6 - 5 + 4 \times 321). \\
8924 &= (9 \times (8 + 7 + 6) + 5) \times (43 + 2 + 1). \\
8925 &= (9 + 8) \times 7 \times (6 + 5 + 43 + 21). \\
8926 &= (9 + 8) \times 7 \times (65 + 4 + 3 \times 2) + 1. \\
8927 &= 98 \times (7 \times 6 + 5) + 4321. \\
8928 &= (9 + 87) \times (6 + 54 + 32 + 1). \\
8929 &= (9 + 8 + 76) \times (5 + 43) \times 2 + 1. \\
8930 &= 9 \times 8 \times (76 + 5 + 43) + 2 \times 1. \\
8931 &= 9 + (87 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
8932 &= 9 + 87 + (6 \times 5 + 4^3)^2 \times 1. \\
8933 &= 9 + 87 + (6 \times 5 + 4^3)^2 + 1. \\
8934 &= 9 \times 8 + 7 \times (6 + 5 \times 4 \times 3 \times 21). \\
8935 &= (9 \times (8 + 7) \times (6 + 5) + 4) \times 3 \times 2 + 1. \\
8936 &= ((9 + 876) \times 5 + 43) \times 2 \times 1. \\
8937 &= 9 \times (876 + 54 + 3 \times 21). \\
8938 &= 9 \times 87 \times (6 + 5) + 4 + 321. \\
8939 &= 9 \times 8 \times (7 + 6) + (5 \times 4)^3 + 2 + 1. \\
8940 &= (9 + 876 + 5 + 4) \times (3^2 + 1). \\
8941 &= 98 + 7 + (6 \times 5 + 4^3)^2 \times 1. \\
8942 &= (987 + 6) \times (5 + 4) + 3 + 2 \times 1. \\
8943 &= (9 \times 87 + 6 \times 5) \times (4 + 3 \times 2 + 1). \\
8944 &= (987 + 6) \times (5 + 4) + 3 \times 2 + 1. \\
8945 &= (9 + (8 + 7) \times 6 + 5) \times 43 \times 2 + 1. \\
8946 &= (987 + 6) \times (5 + 4) + 3^2 \times 1. \\
8947 &= (987 + 6) \times (5 + 4) + 3^2 + 1. \\
8948 &= 9 \times 8 + 7 \times (6 + 5^4 + 3) \times 2 \times 1. \\
8949 &= 9 \times 8 \times (76 + 5 + 43) + 21. \\
8950 &= (98 + 76 + 5) \times ((4 + 3)^2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
8951 &= -1 \times 2 + (3^4 + 5) \times (6 + 7) \times 8 + 9. \\
8952 &= 12 \times (34 \times 5 + 6 \times (7 + 89)). \\
8953 &= ((1 + 2)^3 + 4^5 + 67) \times 8 + 9. \\
8954 &= 1^2 + (3^4 + 5) \times (6 + 7) \times 8 + 9. \\
8955 &= 12^3 + (4^5 + 6) \times 7 + 8 + 9. \\
8956 &= 1234 + (5 + 6) \times 78 \times 9. \\
8957 &= 1 \times 2 + ((3 \times 45 + 6) \times 7 + 8) \times 9. \\
8958 &= 1 + 2 + ((3 \times 45 + 6) \times 7 + 8) \times 9. \\
8959 &= (1 \times 23 \times 4 \times 5 + 67) \times (8 + 9). \\
8960 &= (1^2 + 3)^4 \times (5 + 6 + 7 + 8 + 9). \\
8961 &= 1 \times (23 \times 4 + 5 + 6) \times (78 + 9). \\
8962 &= 1 + (23 \times 4 + 5 + 6) \times (78 + 9). \\
8963 &= 1 + 2 \times (3 + 4567 - 89). \\
8964 &= 12 \times 345 + 67 \times 8 \times 9. \\
8965 &= 12 + (3^4 + 5) \times (6 + 7) \times 8 + 9. \\
8966 &= 1 + 2^{(3 \times 4)} + (5 + 67 \times 8) \times 9. \\
8967 &= 12 + ((3 \times 45 + 6) \times 7 + 8) \times 9. \\
8968 &= 1 \times 2^{(3 \times 4)} + 56 \times (78 + 9). \\
8969 &= 1 + 2^{(3 \times 4)} + 56 \times (78 + 9). \\
8970 &= 1 \times 23 \times (45 + 6 \times 7 \times 8 + 9). \\
8971 &= 1 + 23 \times (45 + 6 \times 7 \times 8 + 9). \\
8972 &= 1 \times 2 + (3 + 4 \times 5) \times 6 \times (7 \times 8 + 9). \\
8973 &= 1 + 2 + (3 + 4 \times 5) \times 6 \times (7 \times 8 + 9). \\
8974 &= 1 + (2 + 3^4) \times (5 \times 6 + 78) + 9. \\
8975 &= 1 \times 2 + 3 \times 45 \times 67 - 8 \times 9. \\
8976 &= 1^2 \times 34 \times (5 + 6) \times (7 + 8 + 9). \\
8977 &= 1 + (2 + 3^4 + 5) \times (6 + 7 + 89). \\
8978 &= 1 \times 2 + 34 \times (5 + 6) \times (7 + 8 + 9). \\
8979 &= 1 + 2 + 34 \times (5 + 6) \times (7 + 8 + 9). \\
8980 &= 1 + 23 \times (4 \times 5 + 6) \times (7 + 8) + 9. \\
8981 &= (1 + 2)(3 + 4) + 5 + 6789. \\
8982 &= (12 \times 3^4 + 5 + 6 + 7 + 8) \times 9. \\
8983 &= (1 \times 2^{(3+4)} + 5) \times 67 + 8 \times 9. \\
8984 &= 1 + (2^{(3+4)} + 5) \times 67 + 8 \times 9. \\
8985 &= 1 + 2^3 \times (4^5 + 6 \times (7 + 8) + 9). \\
8986 &= 1 + 2 \times 3^4 \times 56 - 78 - 9. \\
8987 &= 1 \times 2^3 \times 4^5 + 6 + 789. \\
8988 &= 1 + 2^3 \times 4^5 + 6 + 789. \\
8989 &= (1 \times 2 + 3^4 + 5 + 6 + 7) \times 89. \\
8990 &= 1 + (2 + 34 + 5 \times (6 + 7)) \times 89. \\
8991 &= (1 + 2 \times (3 + (4 \times 5 + 6 \times 7) \times 8)) \times 9. \\
8992 &= -1 + 2 \times 3^4 \times 56 - 7 - 8 \times 9. \\
8993 &= (123 \times 4 + 5 \times 6 + 7) \times (8 + 9). \\
8994 &= (1 + 23 \times (4 \times 5 + 6)) \times (7 + 8) + 9. \\
8995 &= (1 + 2^{(3+4)} + 5) \times 67 + 8 + 9. \\
8996 &= (12 + 3 + 4) \times (5 + 6 \times 78) + 9. \\
8997 &= ((1 + 2) \times 34 + 5) \times (6 + 78) + 9. \\
8998 &= -1 + 2 - 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
8999 &= 1 \times 2 - 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9000 &= 1^{23} \times 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9001 &= 1 + (2^{(3+4)} + 5) \times 67 + 89. \\
9002 &= 1 \times 2^3 \times 4^5 + 6 \times (7 + 8) \times 9. \\
9003 &= 1 + 2^3 \times 4^5 + 6 \times (7 + 8) \times 9. \\
9004 &= 1^2 + 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9005 &= 1 \times 2 + 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9006 &= 1 + 2 + 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9007 &= 1 + 2 \times 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9008 &= 1 \times 2^3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9009 &= 1 \times 2 \times 3 \times 4 \times 5 \times (67 + 8) + 9. \\
9010 &= 1 + 2 \times 3 \times 4 \times 5 \times (67 + 8) + 9. \\
9011 &= 1 + 2 \times (3^4 + 56 \times (7 + 8 \times 9)). \\
9012 &= 12 \times (3 \times 4 \times 56 + 7 + 8 \times 9). \\
9013 &= -1 - (2 + 3)^4 + 567 \times (8 + 9). \\
9014 &= -1 + 2 \times 3 \times 4 \times (5 + 6 \times 7) \times 8 - 9. \\
9015 &= 12 + 3 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9016 &= 1 \times 23 \times 4 \times (5 + 6 + 78 + 9). \\
9017 &= 1 + 23 \times 4 \times (5 + 6 + 78 + 9). \\
9018 &= 12^3 + (4 + 5) \times 6 \times (7 + 8) \times 9. \\
9019 &= 1 + (2 \times 3)^4 + (5 + 6) \times 78 \times 9. \\
9020 &= (1 - 2 + 3^4 + 5 \times 6) \times (-7 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
8951 &= -9 - 8 + 76 \times (-5 + 4^3) \times 2 \times 1. \\
8952 &= (9 + 8 + 7) \times (6 \times (5 \times 4 \times 3 + 2) + 1). \\
8953 &= 9 + 8 \times (7 + 6) \times (54 + 32) \times 1. \\
8954 &= 9 + 8 \times (7 + 6) \times (54 + 32) + 1. \\
8955 &= 987 + 6^5 + 4^3 \times (2 + 1). \\
8956 &= (9 + 8) \times 7 + (6 \times 5 + 4^3)^2 + 1. \\
8957 &= 9 \times 8 \times (7 + 6) + (5 \times 4)^3 + 21. \\
8958 &= (98 + 7 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
8959 &= (98 + 7 + 6 \times (5 + 4)^3) \times 2 + 1. \\
8960 &= 98 + 7 \times (6 + 5 \times 4 \times 3 \times 21). \\
8961 &= (987 + 6) \times (5 + 4) + 3 + 21. \\
8962 &= 98 \times (76 + 5) + 4^3(3 + 2) \times 1. \\
8963 &= 98 \times (76 + 5) + 4^3(3 + 2) + 1. \\
8964 &= 9 \times 8 + 76 \times (54 + 3 \times 21). \\
8965 &= 9 \times (8 \times 7 \times 6 + 54 \times 3) \times 2 + 1. \\
8966 &= 9 + 8765 + 4^3 \times (2 + 1). \\
8967 &= 9 \times (8 + 7) \times 65 + 4^3 \times (2 + 1). \\
8968 &= (9 + 8 + 7 \times 6) \times (5 + (4 + 3) \times 21). \\
8969 &= (987 + 6) \times (5 + 4) + 32 \times 1. \\
8970 &= 9 \times 876 + 543 \times 2 \times 1. \\
8971 &= 9 \times 876 + 543 \times 2 + 1. \\
8972 &= (9 + 8 \times 7) \times 6 \times (5 \times 4 + 3) + 2 \times 1. \\
8973 &= 9 \times (876 + 5 \times 4 \times 3 \times 2 + 1). \\
8974 &= 98 + 7 \times (6 + 5^4 + 3) \times 2 \times 1. \\
8975 &= 98 + 7 \times (6 + 5^4 + 3) \times 2 + 1. \\
8976 &= (9 + 8) \times (7 \times 6 + 54 \times 3^2 \times 1). \\
8977 &= ((9 + 8 \times 7) \times (65 + 4) + 3) \times 2 + 1. \\
8978 &= ((9 + 876) \times 5 + 4^3) \times 2 \times 1. \\
8979 &= ((9 + 876) \times 5 + 4^3) \times 2 + 1. \\
8980 &= 987 - 6 + (5 \times 4)^3 - 2 + 1. \\
8981 &= (98 \times (7 + 6) + 5 + 4) \times (3 \times 2 + 1). \\
8982 &= (987 + 6 + 5) \times (4 + 3 + 2) \times 1. \\
8983 &= (987 + 6 + 5) \times (4 + 3 + 2) + 1. \\
8984 &= (9 \times 8 + 7 \times (6 + 5^4) + 3) \times 2 \times 1. \\
8985 &= 9 \times (8 + (76 + 5) \times 4) \times 3 + 21. \\
8986 &= ((9 + 8) \times 7 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
8987 &= ((9 + 8) \times 7 + 6 \times (5 + 4)^3) \times 2 + 1. \\
8988 &= (9 + 8 \times (7 \times 6 + 5) + 43) \times 21. \\
8989 &= 9 - 8 + 7(6 + 5) \times 4 \times 321. \\
8990 &= 98 + 76 \times (54 + 3 \times 21). \\
8991 &= 9 \times 87 + 6^5 + 432 \times 1. \\
8992 &= 9 \times 87 + 6^5 + 432 + 1. \\
8993 &= (9 + 8) \times (7 \times 6 + 54 \times 3^2 + 1). \\
8994 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 - 3 \times 2 \times 1. \\
8995 &= 987 + 6 + (5 \times 4)^3 + 2 \times 1. \\
8996 &= 987 + 6 + (5 \times 4)^3 + 2 + 1. \\
8997 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 - 3 \times (2 - 1). \\
8998 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 - 3 + 2 - 1. \\
8999 &= 9 + (8 \times 7 + 6) \times ((5 + 4 + 3)^2 + 1). \\
9000 &= 9 \times 8 \times (7 \times 6 + 5 \times 4 + 3 \times 21). \\
9001 &= 9 \times 8 \times (7 + 6) \times 5 + 4321. \\
9002 &= 9 \times (87 \times (6 + 5) + 43) + 2 \times 1. \\
9003 &= 9 \times (87 \times (6 + 5) + 43) + 2 + 1. \\
9004 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 + 3 + 2 - 1. \\
9005 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 + 3 + 2 \times 1. \\
9006 &= 98 \times 7 + 65 \times 4^3 \times 2 \times 1. \\
9007 &= 98 \times 7 + 65 \times 4 \times 32 + 1. \\
9008 &= 987 \times (6 + 5) - 43^2 \times 1. \\
9009 &= 9 \times (87 + 6 + 5 + 43 \times 21). \\
9010 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 + 3^2 + 1. \\
9011 &= 9 \times (8 + (7 + 6 \times 54) \times 3) + 2 \times 1. \\
9012 &= 9 \times (8 + (7 + 6 \times 54) \times 3) + 2 + 1. \\
9013 &= 9 - 8 \times 7 + 6^5 + 4 \times 321. \\
9014 &= 987 + 6 + (5 \times 4)^3 + 21. \\
9015 &= 987 + 6^5 + 4 \times 3 \times 21. \\
9016 &= 98 \times (76 + 5 + 4 + 3 \times 2 + 1). \\
9017 &= ((9 + 8) \times 7 + 65) \times (4 + 3)^2 + 1. \\
9018 &= (987 + 6 + 5 + 4) \times 3^2 \times 1. \\
9019 &= (9 + 8) \times 7 \times 65 + 4 \times 321. \\
9020 &= (9 \times 8 + 7 \times (6 + 5^4 + 3)) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9021 &= 1 \times (23 \times 4 + 5) \times (6 + 78 + 9). \\
9022 &= 1 + (23 \times 4 + 5) \times (6 + 78 + 9). \\
9023 &= 1 \times 23 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9024 &= 1 + 23 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9025 &= 1 + 2^3 \times 4 \times (5 \times 6 \times 7 + 8 \times 9). \\
9026 &= (123 + 4) \times (56 + 7 + 8) + 9. \\
9027 &= 12^3 + (4^5 + 6) \times 7 + 89. \\
9028 &= 1^2 + (3 + 4 \times 5 \times (6 \times 7 + 8)) \times 9. \\
9029 &= 1 \times 2^3 \times (4^5 + 6) + 789. \\
9030 &= 1 + 2^3 \times (4^5 + 6) + 789. \\
9031 &= 1 + 2 + 3 \times 45 \times 67 - 8 - 9. \\
9032 &= -12 + 3 \times 45 \times 67 + 8 - 9. \\
9033 &= 1 \times 2 \times 3 \times 4 \times (5 + 6 \times 7) \times 8 + 9. \\
9034 &= 1 + 2 \times 3 \times 4 \times (5 + 6 \times 7) \times 8 + 9. \\
9035 &= 1 \times (2 + 3^4 + 56) \times (7 \times 8 + 9). \\
9036 &= 1^2 + 3 \times 4^5 + 67 \times 89. \\
9037 &= 1 \times 2 + 3 \times 4^5 + 67 \times 89. \\
9038 &= 1 + 2 + 3 \times 4^5 + 67 \times 89. \\
9039 &= (1 + 23 + 45) \times (6 \times 7 + 89). \\
9040 &= (1 + 2)(3 + 4) + (5 + 6) \times 7 \times 89. \\
9041 &= ((1 + 2) \times 34 \times (5 + 6) + 7) \times 8 + 9. \\
9042 &= 1 \times 2 \times 345 \times (6 + 7) + 8 \times 9. \\
9043 &= 1 + 2 \times 345 \times (6 + 7) + 8 \times 9. \\
9044 &= (12 + 34 + 5 \times 6) \times 7 \times (8 + 9). \\
9045 &= (1 + 2 + 34 + 5 \times 6) \times (7 + 8) \times 9. \\
9046 &= 1 + (23 + 4 \times (5 + 6)) \times (7 + 8) \times 9. \\
9047 &= 12 + 3 \times 4^5 + 67 \times 89. \\
9048 &= (12 + 3^4 + 5 \times 6) \times (78 + 9). \\
9049 &= 1 + (2 + 3 \times (4 + 5 \times 6)) \times (78 + 9). \\
9050 &= (12^3 + 4) \times 5 + 6 \times (7 \times 8 + 9). \\
9051 &= -12 + 3 \times (4 + 5) \times 6 \times 7 \times 8 - 9. \\
9052 &= 1 + 2 \times (3 + 4567) - 89. \\
9053 &= (1 + 2) \times (3 + 45 \times 67) + 8 - 9. \\
9054 &= 1 \times 2 \times 3 \times (4 \times 5 \times (67 + 8) + 9). \\
9055 &= 1 + 2 \times 345 \times (6 + 7) + 8 \times 9. \\
9056 &= 1 \times (2 + 3^4) \times (5 + (6 + 7) \times 8) + 9. \\
9057 &= ((12 + 3) \times 4 + 56) \times 78 + 9. \\
9058 &= 12 + 3 \times 45 \times 67 - 8 + 9. \\
9059 &= 1 \times 2 \times 345 \times (6 + 7) + 89. \\
9060 &= 1 + 2 \times 345 \times (6 + 7) + 89. \\
9061 &= 1 \times (2 + 34 + 5) \times (6 + 7) \times (8 + 9). \\
9062 &= 1^2 \times 3 \times 45 \times 67 + 8 + 9. \\
9063 &= 1^2 + 3 \times 45 \times 67 + 8 + 9. \\
9064 &= 1 \times 2 + 3 \times 45 \times 67 + 8 + 9. \\
9065 &= 1 + 2 + 3 \times 45 \times 67 + 8 + 9. \\
9066 &= 1 \times 2 \times 3^4 \times 56 - 7 - 8 + 9. \\
9067 &= (1 + 2^{(3+4)}) \times 5 + 67 + 89. \\
9068 &= 1 + ((2 \times 3)^4 - 5 - 6) \times 7 + 8 \times 9. \\
9069 &= -12 + 3 \times (4 + 5) \times 6 \times 7 \times 8 + 9. \\
9070 &= -(1 + 2^3)^4 + 5^6 + 7 + 8 - 9. \\
9071 &= (1 + 2) \times (3 + 45 \times 67) + 8 + 9. \\
9072 &= 12 \times 3^4 \times 5 + 6 \times 78 \times 9. \\
9073 &= 1 + (2 + 3 + 4) \times (56 + 7 \times 8) \times 9. \\
9074 &= 12 + 3 \times 45 \times 67 + 8 + 9. \\
9075 &= 1 + 2 + (3 + 45) \times (6 + 7 + 8) \times 9. \\
9076 &= -1 + ((2 \times 3)^4 + 5 + 6) \times 7 - 8 \times 9. \\
9077 &= -1 + 2 \times 3^4 \times 56 + 7 + 8 - 9. \\
9078 &= (12 + 3 + 45 + 6 \times 7) \times 89. \\
9079 &= 1 + 2 \times 3 \times (4 \times (5 + 6 \times 7) \times 8 + 9). \\
9080 &= (1 + 2) \times 3^4 \times (5 \times 6 + 7) + 89. \\
9081 &= 12 \times (3 + 4) \times (5 \times 6 + 78) + 9. \\
9082 &= 1^2 + 3^4 \times (56 + 7 \times 8) + 9. \\
9083 &= 1 \times 2 + 3^4 \times (56 + 7 \times 8) + 9. \\
9084 &= 12 + (3 + 45) \times (6 + 7 + 8) \times 9. \\
9085 &= (1 + (2 + 3 \times 4 + 5) \times 6) \times (7 + 8 \times 9). \\
9086 &= 1 \times 2 \times (3 + 4 + (56 + 7) \times 8 \times 9). \\
9087 &= 12 \times 34 + (5 + 6) \times 789. \\
9088 &= (1^{23} + 4)^5 + 67 \times 89. \\
9089 &= 12 \times 3 \times 4 \times (56 + 7) + 8 + 9. \\
9090 &= (1 + 2) \times (3 + (4 + 5) \times 6 \times 7 \times 8) + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9021 &= ((98 \times 7 + 65) \times 4 + 3) \times (2 + 1). \\
9022 &= -98 + 76 \times 5 \times 4 \times 3 \times 2 \times 1. \\
9023 &= -98 + 76 \times 5 \times 4 \times 3 \times 2 + 1. \\
9024 &= 9 \times 87 \times 6 + 5 + 4321. \\
9025 &= (9 + (876 + 5^4) \times 3) \times 2 + 1. \\
9026 &= 9 + 8765 + 4 \times 3 \times 21. \\
9027 &= 9 \times (8 + 7) \times 65 + 4 \times 3 \times 21. \\
9028 &= (9 \times 8 + 76) \times (54 + 3 \times 2 + 1). \\
9029 &= (9 + 87 \times 6) \times (5 + 4 \times 3) + 2 \times 1. \\
9030 &= (9 \times 87 + 6 \times 5 \times 4) \times (3^2 + 1). \\
9031 &= (98 + 7) \times (6 \times (5 + 4) + 32) + 1. \\
9032 &= 98 \times 7 + (6 + 5 \times 4) \times 321. \\
9033 &= (98 \times 7 + 65) \times 4 \times 3 + 21. \\
9034 &= 9 + 8 \times (7 \times 6 + 5) \times 4 \times 3 \times 2 + 1. \\
9035 &= (9 + 8 \times 7) \times (6 + 5 + 4 \times 32 \times 1). \\
9036 &= (9 + 8 \times 7) \times (6 + 5 + 4 \times 32) + 1. \\
9037 &= (98 + 7 \times (6 + 5^4) + 3) \times 2 + 1. \\
9038 &= 9 + (8 + 7 + 6) \times 5 \times 43 \times 2 - 1. \\
9039 &= 9 + (8 + 7 + 6) \times 5 \times 43 \times 2 \times 1. \\
9040 &= 9 + (8 + 7 + 6) \times 5 \times 43 \times 2 + 1. \\
9041 &= 9 + 8 \times (7 \times 6 + 543 \times 2 + 1). \\
9042 &= 98 + (7 + 6) \times (5^4 + 3 \times 21). \\
9043 &= (9 + 8 \times (7 \times 6 + 5) \times 4 \times 3) \times 2 + 1. \\
9044 &= (9 + 8) \times 7 \times (65 + 4 + 3 \times 2 + 1). \\
9045 &= 9 \times 87 \times (6 + 5) + 432 \times 1. \\
9046 &= 9 \times 87 \times (6 + 5) + 432 + 1. \\
9047 &= 987 \times 6 + 5^4 \times (3 + 2 \times 1). \\
9048 &= 987 \times 6 + 5^4 \times (3 + 2) + 1. \\
9049 &= 9 + 8 + 7 \times 6 \times 5 \times 43 + 2 \times 1. \\
9050 &= 9 + 8 + 7 \times 6 \times 5 \times 43 + 2 + 1. \\
9051 &= (98 + 7 + 6 + 5 \times 4^3) \times 21. \\
9052 &= 9 - 8 + 7 \times 6 \times 5 \times 43 + 21. \\
9053 &= (-9 + 8) \times 7 + 6^5 + 4 \times 321. \\
9054 &= 9 \times (87 \times (6 + 5) + (4 + 3)^2 \times 1). \\
9055 &= 9 \times (87 \times (6 + 5) + (4 + 3)^2) + 1. \\
9056 &= -9 \times (8 + 7 + 6) + 5 \times 43^2 \times 1. \\
9057 &= 9 + 8 \times (7 + 6) \times (54 + 32 + 1). \\
9058 &= 9 + 87 \times (6 \times (5 + 4 \times 3) + 2) + 1. \\
9059 &= 9 + (8 + 7 \times 6) \times (5 \times (4 + 32) + 1). \\
9060 &= 9 + (8 + 76 \times 5 + 43) \times 21. \\
9061 &= (9 + 876 + 5^4) \times 3 \times 2 + 1. \\
9062 &= 9 + 8 + 7 \times (6 \times 5 \times 43 + 2) + 1. \\
9063 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 + 3 \times 21. \\
9064 &= 9 \times (87 \times 6 + 5) + 4321. \\
9065 &= -9 + 8 \times 7 \times 6 \times (5 + 4) \times 3 + 2 \times 1. \\
9066 &= -9 + 8 + 7 + 6^5 + 4 \times 321. \\
9067 &= (9 - 8) \times 7 + 6^5 + 4 \times 321. \\
9068 &= 9 + 8 + 7 \times 6 \times 5 \times 43 + 21. \\
9069 &= 9 \times 8 \times 7 \times 6(5 + 4) \times 3 - 2 - 1. \\
9070 &= 9 + 8 - 7 + 6^5 + 4 \times 321. \\
9071 &= 98 \times 7 + 65 \times 43 \times (2 + 1). \\
9072 &= (98 + 7 + 6 \times 54 + 3) \times 21. \\
9073 &= 98 \times 76 + 5 \times (4 + 321). \\
9074 &= 9 \times 8 \times 7 \times (6 + 5 + 4 + 3) \times 2 \times 1. \\
9075 &= 9 \times 8 \times 7 \times (6 + 5 + 4 + 3) + 2 + 1. \\
9076 &= (9 \times 8 \times 7 \times 6 + 5 - 4) \times 3 + 2 - 1. \\
9077 &= 98 \times 76 + 543 \times (2 + 1). \\
9078 &= (9 + 8 \times (7 \times 6 + 5) \times 4) \times 3 \times 2 \times 1. \\
9079 &= (9 + 8) \times 7 \times 65 + 4^3 \times 21. \\
9080 &= (9 + 8 + 7 \times 6 \times 5) \times 4 \times (3^2 + 1). \\
9081 &= 9 \times 876 + (54 + 3) \times 21. \\
9082 &= 9 + 8 + 7 \times (6 + 5 + 4 \times 321). \\
9083 &= 9 + 8 \times 7 \times 6 \times (5 + 4) \times 3 + 2 \times 1. \\
9084 &= 9 + 8 + 7 + 6^5 + 4 \times 321. \\
9085 &= (9 \times 8 + 7) \times (6 \times 5 + 4^3 + 21). \\
9086 &= (9 - 8 + 7 + 6) \times (5^4 + 3 + 21). \\
9087 &= 9 + ((8 + 76) \times 54 + 3) \times 2 \times 1. \\
9088 &= 987 + 6^5 + 4 + 321. \\
9089 &= (9 + 8 + 7 + 65 \times 4) \times 32 + 1. \\
9090 &= 9 \times (876 + 5 + 4 \times 32 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
9091 &= ((1^2 + 3)^4 \times 5 + 6) \times 7 + 89. \\
9092 &= 1 + 23 \times (4 + 56 \times 7) - 8 - 9. \\
9093 &= 12 + 3^4 \times (56 + 7 \times 8) + 9. \\
9094 &= -1 \times 2 + 3 \times 4 \times (56 + 78 \times 9). \\
9095 &= 1 \times 2 \times (3 + 4 + 567 \times 8) + 9. \\
9096 &= 1 \times 2 \times 3^4 \times 56 + 7 + 8 + 9. \\
9097 &= 1 + 2 \times 3^4 \times 56 + 7 + 8 + 9. \\
9098 &= 1 \times 2 + 3 \times 4 \times (56 + 78 \times 9). \\
9099 &= 1 + 2 + 3 \times 4 \times (56 + 78 \times 9). \\
9100 &= 1^2 + 3 \times (4 + 5 + 6 \times 7 \times 8 \times 9). \\
9101 &= 1 \times 2 + 3 \times (4 + 5 + 6 \times 7 \times 8 \times 9). \\
9102 &= (1234 + 56) \times 7 + 8 \times 9. \\
9103 &= 1 \times 2 \times (3^4 \times 56 + 7) + 8 + 9. \\
9104 &= 1 + 2 \times (3^4 \times 56 + 7) + 8 + 9. \\
9105 &= 1 + 2 \times (3 + 4 + 567 \times 8 + 9). \\
9106 &= 1 + 2 \times (3 \times 4 + 567 \times 8) + 9. \\
9107 &= (1 \times 2 + 3 \times 45) \times 67 - 8 \times 9. \\
9108 &= 12 + 3 \times 4 \times (56 + 78 \times 9). \\
9109 &= 1 + 2 \times (34 \times 5 + 6 \times 7 \times 8) \times 9. \\
9110 &= (12^3 + 4) \times 5 + (6 \times 7 + 8) \times 9. \\
9111 &= 12 + 3 \times (4 + 5 + 6 \times 7 \times 8 \times 9). \\
9112 &= 1 + 2 \times (3^4 \times 56 + 7 + 8) + 9. \\
9113 &= 1 + 2^3 \times (4 + 56 + 7) \times (8 + 9). \\
9114 &= 1 \times 2 \times (345 + 6 \times 78 \times 9). \\
9115 &= 1 + 2 \times (345 + 6 \times 78 \times 9). \\
9116 &= 1 - 2 + 3 \times 45 \times 67 + 8 \times 9. \\
9117 &= 1^2 \times 3 \times 45 \times 67 + 8 \times 9. \\
9118 &= 1^2 + 3 \times 45 \times 67 + 8 \times 9. \\
9119 &= 1 \times 2 + 3 \times 45 \times 67 + 8 \times 9. \\
9120 &= 1 + 2 + 3 \times 45 \times 67 + 8 \times 9. \\
9121 &= 1 \times 2 \times 34 \times (56 + 78) + 9. \\
9122 &= 1 + 2 \times 34 \times (56 + 78) + 9. \\
9123 &= 123 + 4 \times 5 \times (6 \times 7 + 8) \times 9. \\
9124 &= 1 + 2 + (3 \times 4 + 5) \times 67 \times 8 + 9. \\
9125 &= 1 \times 23 \times (4 + 56 \times 7) + 8 + 9. \\
9126 &= 1 \times 2 \times (34 + 5 + 6 \times 78) \times 9. \\
9127 &= 1 + 2 \times (34 + 5 + 6 \times 78) \times 9. \\
9128 &= 1 \times 2^3 \times 4^5 + (6 + 7) \times 8 \times 9. \\
9129 &= 12 + 3 \times 45 \times 67 + 8 \times 9. \\
9130 &= 1 \times 2 \times (34 \times (56 + 78) + 9). \\
9131 &= 1 \times 23 \times (4 \times (5 + 6) \times 7 + 89). \\
9132 &= 1^2 \times 3 \times (4 \times 5 + 6 \times 7 \times 8 \times 9). \\
9133 &= 12 + (3 \times 4 + 5) \times 67 \times 8 + 9. \\
9134 &= 1 \times 2345 + 6789. \\
9135 &= 1 + 2345 + 6789. \\
9136 &= 1 \times 2 + 3 \times 45 \times 67 + 89. \\
9137 &= 1 + 2 + 3 \times 45 \times 67 + 89. \\
9138 &= 1 + 2 \times 3^4 \times 56 + 7 \times 8 + 9. \\
9139 &= (12 + 3 + 4) \times (56 \times 7 + 89). \\
9140 &= 1 \times 2 \times (34 + (56 + 7) \times 8 \times 9). \\
9141 &= (1 + 2) \times (3 + 4 \times 5 + 6 \times 7 \times 8 \times 9). \\
9142 &= 1 \times 2 \times (3 + 4) \times (5 \times 6 + 7 \times 89). \\
9143 &= 1 + 2 \times (3 + 4) \times (5 \times 6 + 7 \times 89). \\
9144 &= 12 \times 3 \times 4 \times (56 + 7) + 8 \times 9. \\
9145 &= 1^{23} + (4 \times 5 \times 6 + 7) \times 8 \times 9. \\
9146 &= 12 + 3 \times 45 \times 67 + 89. \\
9147 &= 1^2 \times 3 + (4 \times 5 \times 6 + 7) \times 8 \times 9. \\
9148 &= 1^2 + 3 + (4 \times 5 \times 6 + 7) \times 8 \times 9. \\
9149 &= 1 \times 2 \times (34 + 567 \times 8) + 9. \\
9150 &= 1 + 2 \times (34 + 567 \times 8) + 9. \\
9151 &= 1 \times 2 \times 3^4 \times 56 + 7 + 8 \times 9. \\
9152 &= 1 + 2 \times 3^4 \times 56 + 7 + 8 \times 9. \\
9153 &= (12 \times 3^4 + 5 \times 6 + 7 + 8) \times 9. \\
9154 &= 1 + ((2 \times 3^4 + 5) \times 6 + 7 + 8) \times 9. \\
9155 &= 1 + 2 \times 3^4 \times 56 - 7 + 89. \\
9156 &= 12 \times (3 + 4) \times (5 \times 6 + 7 + 8 \times 9). \\
9157 &= 1 \times 2 \times (3 + 4567) + 8 + 9. \\
9158 &= 1 + 2 \times (3 + 4567) + 8 + 9. \\
9159 &= 1 \times 2 \times 3^4 \times 56 + 78 + 9. \\
9160 &= 1 + 2 \times 3^4 \times 56 + 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9091 &= (98 \times 7 + 6 \times 54) \times 3^2 + 1. \\
9092 &= 9 \times (8 + 7) \times 65 - 4 + 321. \\
9093 &= 9 \times 8 \times 7 \times (6 + 5 + 4 + 3) + 21. \\
9094 &= 9 - 8 + 7 \times (65 \times 4 \times (3 + 2) - 1). \\
9095 &= (9 + 87 + 6 + 5) \times (4^3 + 21). \\
9096 &= 9 \times 8 + (7 \times 6 + 5) \times 4^3 \times (2 + 1). \\
9097 &= 9 + 8 \times (7 \times 6 \times (5 + 4) \times 3 + 2 \times 1). \\
9098 &= 9 + 8 \times (7 \times 6 \times (5 + 4) \times 3 + 2) + 1. \\
9099 &= 9 + 8765 + 4 + 321. \\
9100 &= 9 \times (8 + 7) \times 65 + 4 + 321. \\
9101 &= (9 \times 8 \times 7 \times 6 + 5 + 4) \times 3 + 2 \times 1. \\
9102 &= 9 + 8 \times 7 \times 6 \times (5 + 4) \times 3 + 21. \\
9103 &= 9 \times 87 + 65 \times 4 \times 32 \times 1. \\
9104 &= 9 \times 87 + 65 \times 4 \times 32 + 1. \\
9105 &= 9 \times 8 + 7 \times 6 \times 5 \times 43 + 2 + 1. \\
9106 &= 987 + 6^5 + (4 + 3)^{(2+1)}. \\
9107 &= ((9 + 8) \times 76 + 5 + 4) \times (3 \times 2 + 1). \\
9108 &= 9 \times (8 + 7 \times 65 + 43) \times 2 \times 1. \\
9109 &= 9 \times (8 + 7 \times 65 + 43) \times 2 + 1. \\
9110 &= 9 \times 876 + (5 \times (4 + 3))^2 + 1. \\
9111 &= -9 \times 8 + 765 \times 4 \times 3 + 2 + 1. \\
9112 &= (9 + 8) \times (7 + (6 + 5 + 4 \times 3)^2) \times 1. \\
9113 &= (9 + 8) \times (7 + (6 + 5 + 4 \times 3)^2) + 1. \\
9114 &= (9 \times 8 + 7 \times 6 + 5 \times 4^3) \times 21. \\
9115 &= 98 \times (7 + 6 \times (5 + 4) + 32) + 1. \\
9116 &= 98 \times (76 + 5 + 4 \times 3) + 2 \times 1. \\
9117 &= 9 + 8 + 7 \times 65 \times 4 \times (3 + 2) \times 1. \\
9118 &= (987 + 6 + 5 \times 4) \times 3^2 + 1. \\
9119 &= -9 + 8 + 76 \times 5 \times 4 \times 3 \times 2 \times 1. \\
9120 &= (9 \times 8 \times 7 \times 6 + 5 + 4) \times 3 + 21. \\
9121 &= 9 - 8 + 76 \times 5 \times 4 \times 3 \times 2 \times 1. \\
9122 &= 98 + (7 \times 6 + 5) \times 4^3 \times (2 + 1). \\
9123 &= 9 \times 8 + 7 \times 6 \times 5 \times 43 + 21. \\
9124 &= 9 + 8 + 7 \times (65 \times 4 \times (3 + 2) + 1). \\
9125 &= 9 + 8 \times 7 + 6^5 + 4 \times 321. \\
9126 &= 9 \times ((8 + 7) \times (6 + 5) + 4) \times 3 \times 2 \times 1. \\
9127 &= 9 \times ((8 + 7) \times (6 + 5) + 4) \times 3 \times 2 + 1. \\
9128 &= 9 - 8 + 7 + 6^5 + 4^3 \times 21. \\
9129 &= 9 \times 87 + (6 + 5 \times 4) \times 321. \\
9130 &= 98 + 7 \times 6 \times 5 \times 43 + 2 \times 1. \\
9131 &= 98 + 7 \times 6 \times 5 \times 43 + 2 + 1. \\
9132 &= 9 + 8 + 7 \times 6 \times (5 \times 43 + 2) + 1. \\
9133 &= -98 - 7 - 6 + 5 \times 43^2 - 1. \\
9134 &= (9 \times 8 \times 7 \times 6 + 5 \times 4) \times 3 + 2 \times 1. \\
9135 &= (9 \times 8 \times 7 \times 6 + 5 \times 4) \times 3 + 2 + 1. \\
9136 &= (98 + 7) \times (6 + (5 + 4) \times 3^2) + 1. \\
9137 &= 9 + 8 + 76 \times 5 \times 4 \times 3 \times 2 \times 1. \\
9138 &= 9 + 8 + 76 \times 5 \times 4 \times 3 \times 2 + 1. \\
9139 &= 9 \times 8 + 7 + 6^5 + 4 \times 321. \\
9140 &= 9 \times 876 + (5^4 + 3) \times 2 \times 1. \\
9141 &= 9 \times 876 + (5^4 + 3) \times 2 + 1. \\
9142 &= 98 + 7 \times (6 \times 5 \times 43 + 2 \times 1). \\
9143 &= 98 + 7 \times (6 \times 5 \times 43 + 2) + 1. \\
9144 &= 9 \times 876 + 5 \times 4 \times 3 \times 21. \\
9145 &= (9 + 8 + 7 \times 6) \times 5 \times (4 + 3^{(2+1)}). \\
9146 &= 9 + (8 + 76 \times 5 \times 4 \times 3) \times 2 + 1. \\
9147 &= -98 + 7 - 6 + 5 \times 43^2 - 1. \\
9148 &= -98 + 7 - 6 + 5 \times 43^2 \times 1. \\
9149 &= 98 + 7 \times 6 \times 5 \times 43 + 21. \\
9150 &= 9 \times 8 \times (7 + 6 \times 5 \times 4) + 3 + 2 + 1. \\
9151 &= 9 \times 8 \times (7 + 6 \times 5 \times 4) + 3 \times 2 + 1. \\
9152 &= (98 + (7 \times 6 + 5) \times 4) \times 32 \times 1. \\
9153 &= (9 \times 8 + 7 \times 6 \times 5 + 4) \times 32 + 1. \\
9154 &= (9 + 8 + 76 \times 5 \times 4 \times 3) \times 2 \times 1. \\
9155 &= 9 \times (8 + 7 + 6 \times 54) \times 3 + 2 \times 1. \\
9156 &= 9 + 87 + 6^5 + 4 \times 321. \\
9157 &= 9876 - 5 \times (4 \times 3)^2 + 1. \\
9158 &= -9 + 8 + 765 \times 4 \times 3 - 21. \\
9159 &= 9 + (8 + 7 \times 6) \times (54 \times 3 + 21). \\
9160 &= 9 - 8 + 765 \times 4 \times 3 - 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9161 &= 12 \times 3 \times 4 \times (56 + 7) + 89. \\
9162 &= 12^3 \times 4 + 5 \times (6 \times 7 + 8) \times 9. \\
9163 &= (123 \times 4 + 5 + 6 \times 7) \times (8 + 9). \\
9164 &= 1 + (23 + (4 + 5) \times 6) \times 7 \times (8 + 9). \\
9165 &= 1 \times 2 \times (3 + 4567 + 8) + 9. \\
9166 &= 1 + 2 \times (3 + 4567 + 8) + 9. \\
9167 &= (12 \times 3 + 4 + 56 + 7) \times 89. \\
9168 &= 1 \times 2 \times 3^4 \times 56 + 7 + 89. \\
9169 &= 1 + 2 \times 3^4 \times 56 + 7 + 89. \\
9170 &= (12^3 + 4) \times 5 + 6 + 7 \times 8 \times 9. \\
9171 &= 123 \times 4 + (5 + 6) \times 789. \\
9172 &= 1^2 + (3 + (4 \times 5 \times 6 + 7) \times 8) \times 9. \\
9173 &= (1 + (2 \times 3)^4 + 5 + 6) \times 7 + 8 + 9. \\
9174 &= 1^2 \times 3 \times 4^5 + 678 \times 9. \\
9175 &= 1 + 2 \times (3 + 4567 + 8 + 9). \\
9176 &= 1 + 2 \times (3^4 \times 56 + 7) + 89. \\
9177 &= 1 + 2 + 3 \times 4^5 + 678 \times 9. \\
9178 &= 1 + 23 \times (4 + 5 + 6 \times (7 \times 8 + 9)). \\
9179 &= (1 \times 2 + 3 \times 45) \times 67 \times (-8 + 9). \\
9180 &= 12 \times (3 + 4 + 56 + 78 \times 9). \\
9181 &= 1 + 23 \times (4 + 56 \times 7) + 8 \times 9. \\
9182 &= (12^3 + 4) \times 5 + 6 \times (78 + 9). \\
9183 &= (1 + 2) \times (3 + 4^5) + 678 \times 9. \\
9184 &= 1 \times 2 \times (3 + 4) \times (567 + 89). \\
9185 &= 1 + 2 \times (3 + 4) \times (567 + 89). \\
9186 &= 12 + 3 \times 4^5 + 678 \times 9. \\
9187 &= 1 + 2 \times (3 + 45 \times (6 + 7 + 89)). \\
9188 &= 1 \times 2^3 + 4 \times 5 \times (6 \times 78 - 9). \\
9189 &= (1 + 2) \times (34 + 5 + 6 \times 7 \times 8 \times 9). \\
9190 &= 1 + (2 + 3 + (4 \times 5 \times 6 + 7) \times 8) \times 9. \\
9191 &= 1 \times 2 \times 3^4 \times 56 + 7 \times (8 + 9). \\
9192 &= 12 \times (34 + 5 \times 6 + 78 \times 9). \\
9193 &= 1 \times 2 \times (3 + 4 + 567) \times 8 + 9. \\
9194 &= 1234 \times 5 + 6 \times 7 \times 8 \times 9. \\
9195 &= (1 + 2 \times 3)^4 + 5 + 6789. \\
9196 &= (1 \times 2 + 3 \times 45) \times 67 + 8 + 9. \\
9197 &= 1 \times 23 \times (4 + 56 \times 7) + 89. \\
9198 &= 1 + 23 \times (4 + 56 \times 7) + 89. \\
9199 &= 1 + 2 \times (3 + 4) \times (5 \times (6 + 7) + 8) \times 9. \\
9200 &= (1 + 2) \times 3 \times 4^5 - 6 + 7 - 8 - 9. \\
9201 &= (1^2 + 3 \times 45) \times 67 + 89. \\
9202 &= 1 \times 2 \times (3^4 \times 56 + 7 \times 8 + 9). \\
9203 &= 1 + 2 \times (3^4 \times 56 + 7 \times 8 + 9). \\
9204 &= (1 + 2 + 3) \times (4^5 + 6 + 7 \times 8 \times 9). \\
9205 &= (12^3 + 4) \times 5 + 67 \times 8 + 9. \\
9206 &= -1 + 2 \times 3^4 \times 56 + (7 + 8) \times 9. \\
9207 &= 1^2 \times (345 + 678) \times 9. \\
9208 &= 1 + 2 \times 3^4 \times 56 + (7 + 8) \times 9. \\
9209 &= 1 \times 2 + 3 \times (45 + 6 \times 7 \times 8 \times 9). \\
9210 &= 1 + 2 + 3 \times (45 + 6 \times 7 \times 8 \times 9). \\
9211 &= (1 + 2) \times 3 \times 4^5 - 67 - 8 \times 9. \\
9212 &= 1 \times 2 \times (3 + 4567) + 8 \times 9. \\
9213 &= 1 + 2 \times (3 + 4567) + 8 \times 9. \\
9214 &= (1 + 2 + (3 + 4) \times (5 + 6) \times 7) \times (8 + 9). \\
9215 &= (1 + 2 \times 3^4) \times 56 + 78 + 9. \\
9216 &= 12 \times (3 \times 4 \times 56 + 7 + 89). \\
9217 &= 1 + 2 \times 3 \times 4 \times (5 \times (67 + 8) + 9). \\
9218 &= (12^3 + 4) \times 5 + (6 + 7 \times 8) \times 9. \\
9219 &= 12 + 3 \times (45 + 6 \times 7 \times 8 \times 9). \\
9220 &= 1^2 + 3 \times (4 + (5 + 6 \times 7 \times 8) \times 9). \\
9221 &= (1 \times (2 \times 3)^4 + 5 + 6) \times 7 + 8 \times 9. \\
9222 &= 1 + 2 + 3 \times (4 + (5 + 6 \times 7 \times 8) \times 9). \\
9223 &= 1 + ((2 + 3) \times 4 \times 5 + 6) \times (78 + 9). \\
9224 &= (1 + 2 \times 3^4) \times 56 + 7 + 89. \\
9225 &= 123 \times (45 + 6 + 7 + 8 + 9). \\
9226 &= 1 + (2 + 345 + 678) \times 9. \\
9227 &= (12^3 + 4)^5 + 678 \times 9. \\
9228 &= 1 + (2 + 3)^4 \times 5 + 678 \times 9. \\
9229 &= 1 \times 2 \times (3 + 4567) + 89. \\
9230 &= 1 + 2 \times (3 + 4567) + 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9161 &= (9 + 8 \times 76 \times 5 + 4) \times 3 + 2 \times 1. \\
9162 &= 9 + (8 \times 76 \times 5 + 4) \times 3 + 21. \\
9163 &= 98 + 7 \times (6 + 5 + 4 \times 321). \\
9164 &= (9 \times 8 + 7) \times (6 \times 5 + 43 \times 2 \times 1). \\
9165 &= 98 + 7 + 6^5 + 4 \times 321. \\
9166 &= (9 + 8) \times 7 \times (65 + 4 \times 3) + 2 + 1. \\
9167 &= -9 + 8 - 76 + 5 \times 43^2 - 1. \\
9168 &= 9 \times 87 + 65 \times 43 \times (2 + 1). \\
9169 &= 9 - 8 - 76 + 5 \times 43^2 - 1. \\
9170 &= 98 + 7 \times 6 \times (5 + 4) \times (3 + 21). \\
9171 &= 987 \times 6 + (54 + 3)^2 \times 1. \\
9172 &= 987 \times 6 + (54 + 3)^2 + 1. \\
9173 &= 9 \times 876 + 5 + 4 \times 321. \\
9174 &= 9 \times (8 + 7 + 6 \times 54) \times 3 + 21. \\
9175 &= 98 \times 76 + 54 \times 32 - 1. \\
9176 &= 98 \times 76 + 54 \times 32 \times 1. \\
9177 &= 98 \times 76 + 54 \times 32 + 1. \\
9178 &= 9 + (8 + 76 \times 5 \times 4) \times 3 \times 2 + 1. \\
9179 &= (9 + 8) \times 7 + 6^5 + 4 \times 321. \\
9180 &= 9 \times 876 + 54 \times (3 + 21). \\
9181 &= (9 + 8) \times (7 + 65 \times 4 + 3) \times 2 + 1. \\
9182 &= 9 \times (8 + 7 \times (6 + 5)) \times 4 \times 3 + 2 \times 1. \\
9183 &= 9 \times 8 \times 7 + 6^5 + 43 \times 21. \\
9184 &= (9 + 8) \times 7 \times (65 + 4 \times 3) + 21. \\
9185 &= 9 + 8 \times 7 + 6^5 + 4^3 \times 21. \\
9186 &= 9 \times 8 + 7 \times 6 \times (5 \times 43 + 2 \times 1). \\
9187 &= 9 + (8 + 7 + 6) \times (5 + 432) + 1. \\
9188 &= 9 + (8 + 7 \times 654 + 3) \times 2 + 1. \\
9189 &= (987 + 6 \times 5 + 4) \times 3^2 \times 1. \\
9190 &= (987 + 6 \times 5 + 4) \times 3^2 + 1. \\
9191 &= ((9 + 8) \times 7 \times (6 + 5) + 4) \times (3 \times 2 + 1). \\
9192 &= 9 \times 8 + 76 \times 5 \times 4 \times 3 \times 2 \times 1. \\
9193 &= 9 \times 8 + 76 \times 5 \times 4 \times 3 \times 2 + 1. \\
9194 &= 9 + 8 + 7 \times (6 \times 5 \times 43 + 21). \\
9195 &= 987 + 6^5 + 432 \times 1. \\
9196 &= 987 + 6^5 + 432 + 1. \\
9197 &= (9 + 8 + 7 \times 654 + 3) \times 2 + 1. \\
9198 &= 98 + 7 \times 65 \times 4 \times (3 + 2) \times 1. \\
9199 &= 9 + 8 + 765 \times 4 \times 3 + 2 \times 1. \\
9200 &= 9 + 8 + 765 \times 4 \times 3 + 2 + 1. \\
9201 &= 9 \times (8 + 7 \times (6 + 5)) \times 4 \times 3 + 21. \\
9202 &= (9 + 87 + 6 + 5) \times 43 \times 2 \times 1. \\
9203 &= (9 + 87 + 6 + 5) \times 43 \times 2 + 1. \\
9204 &= 9 + (8 \times 76 + 5) \times (4 \times 3 + 2 + 1). \\
9205 &= 98 + 7 \times (65 \times 4 \times (3 + 2) + 1). \\
9206 &= 9 + 8765 + 432 \times 1. \\
9207 &= 9 + 8765 + 432 + 1. \\
9208 &= 9 \times (8 + 7) \times 65 + 432 + 1. \\
9209 &= -9 + 8 \times (7 + 6 + 5) \times 4^3 + 2 \times 1. \\
9210 &= 9 \times (87 \times (6 + 5) + 4^3) + 21. \\
9211 &= 98 - 7 + 6^5 + 4^3 \times 21. \\
9212 &= 98 + 7 \times 6 \times (5 \times 43 + 2 \times 1). \\
9213 &= 9 \times 87 \times 6 + 5 \times 43 \times 21. \\
9214 &= (9 + 8) \times (7 \times 65 + 43 \times 2 + 1). \\
9215 &= 9 + 8 + 7 \times (654 + 3) \times 2 \times 1. \\
9216 &= 9 + 87 + 6^5 + 4^3 \times 21. \\
9217 &= (9 + 8 + 7 + 65 + 4 + 3)^2 + 1. \\
9218 &= 98 + 76 \times 5 \times 4 \times 3 \times 2 \times 1. \\
9219 &= 98 + 76 \times 5 \times 4 \times 3 \times 2 + 1. \\
9220 &= 9876 - 5^4 - 32 + 1. \\
9221 &= (9 \times (8 \times 7 \times 6 + 5) + 4) \times 3 + 2 \times 1. \\
9222 &= 9 \times 8 \times 76 + 5^4 \times 3 \times 2 \times 1. \\
9223 &= 9 \times 8 \times 76 + 5^4 \times 3 \times 2 + 1. \\
9224 &= 9 + (8 + 7 \times (654 + 3)) \times 2 + 1. \\
9225 &= 98 + 7 + 6^5 + 4^3 \times 21. \\
9226 &= 9 + (8 + 76 + 5 + 4 + 3)^2 + 1. \\
9227 &= 9 + 8 \times (76 \times 5 + 4) \times 3 + 2 \times 1. \\
9228 &= 9 + 8 \times (76 \times 5 + 4) \times 3 + 2 + 1. \\
9229 &= -9 - 8 + 7 - 6 + 5 \times 43^2 \times 1. \\
9230 &= 98 \times 76 + 54 \times (32 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
9231 &= (123 + (4 + 56) \times 7) \times (8 + 9). \\
9232 &= (1 + (2 + 3)^4) \times 5 + 678 \times 9. \\
9233 &= (123 + 4) \times (5 + 67) + 89. \\
9234 &= (1 + 2 + 345 + 678) \times 9. \\
9235 &= 1 + 2 \times (3^4 \times 5 + 6 \times 78 \times 9). \\
9236 &= (12^3 + 4) \times 5 + 6 \times (7 + 89). \\
9237 &= 1 \times 2 \times (3^4 \times 56 + 78) + 9. \\
9238 &= (1 \times (2 \times 3)^4 + 5 + 6) \times 7 + 89. \\
9239 &= 1 + ((2 \times 3)^4 + 5 + 6) \times 7 + 89. \\
9240 &= 12 \times (3 \times 4 + 56 + 78 \times 9). \\
9241 &= 1 + 2^3 \times (4^5 + 6 \times 7 + 89). \\
9242 &= (1 + 2)^3 \times (4 + 5 \times 67) + 89. \\
9243 &= 1 \times 2 \times (3^4 + 567 \times 8) + 9. \\
9244 &= 1 + 2 \times (3^4 + 567 \times 8) + 9. \\
9245 &= (1 + (2 \times 3)^4 + 5 + 6) \times 7 + 89. \\
9246 &= 1 \times 2 \times (3^4 \times 56 + 78 \times 9). \\
9247 &= 1 + 2 \times (3^4 \times 56 + 78 \times 9). \\
9248 &= 1 \times 2 \times 34 \times (5 + 6 \times 7 + 89). \\
9249 &= 123 \times 4 \times 5 + 6789. \\
9250 &= (1 + 2^3)^4 + 5 \times 67 \times 8 + 9. \\
9251 &= 1 \times (2 + 3 \times 45) \times 67 + 8 \times 9. \\
9252 &= 1 + (2 + 3 \times 45) \times 67 + 8 \times 9. \\
9253 &= 1 + 2 \times (3^4 + 567 \times 8 + 9). \\
9254 &= (1 + 2 \times 3)^4 + (5 + 6) \times 7 \times 89. \\
9255 &= (1 + 2 \times 34) \times (56 + 78) + 9. \\
9256 &= 1 \times 2 \times (34 + 5 + 6 + 7) \times 89. \\
9257 &= 1 + 2 \times (34 + 5 + 6 + 7) \times 89. \\
9258 &= (1 + 2) \times (3 \times 4^5 + 6) + 7 + 8 + 9. \\
9259 &= (1 + 2 + 34) \times 5 \times (6 \times 7 + 8) + 9. \\
9260 &= 1 - 2 + 3 \times (45 \times 67 + 8 \times 9). \\
9261 &= 12^3 \times 4 + 5 \times 6 \times 78 + 9. \\
9262 &= 1^2 + 3 \times (45 \times 67 + 8 \times 9). \\
9263 &= (1 + 2 + 3 \times 45) \times 67 + 8 + 9. \\
9264 &= 1 \times 2^3 \times (456 + 78 \times 9). \\
9265 &= 1 + 2^3 \times (456 + 78 \times 9). \\
9266 &= 1^2 + (3 \times 4 + 5) \times (67 \times 8 + 9). \\
9267 &= 123 + (4 \times 5 \times 6 + 7) \times 8 \times 9. \\
9268 &= 1 \times (2 + 3 \times 45) \times 67 + 89. \\
9269 &= 1 + (2 + 3 \times 45) \times 67 + 89. \\
9270 &= 1 \times 2 \times (3 + 456 + 7 \times 8) \times 9. \\
9271 &= 1 + 2 \times (3 + 456 + 7 \times 8) \times 9. \\
9272 &= 1 + 2^{(3 \times 4)} + (567 + 8) \times 9. \\
9273 &= 123 \times 45 + 6 \times 7 \times 89. \\
9274 &= 1 + 2 \times (3 \times 4 + 567) \times 8 + 9. \\
9275 &= (1 + 2^3) \times 4^5 + 6 \times 7 + 8 + 9. \\
9276 &= 12 \times (3^4 + 5 + 678 + 9). \\
9277 &= 1 + 2 \times 3 \times (4^5 + 6 \times (78 + 9)). \\
9278 &= (1 - 2 + 3) \times (4567 + 8 \times 9). \\
9279 &= (1 + 2 \times (3 + 456 + 7 \times 8)) \times 9. \\
9280 &= (1 \times 2^3)^4 + (5 + 67) \times 8 \times 9. \\
9281 &= 1 + (2 + 3) \times 4 \times (56 \times 7 + 8 \times 9). \\
9282 &= 12^3 \times 4 + 5 \times 6 \times (7 + 8 \times 9). \\
9283 &= 1^2 + 3 \times (4 \times 5 + 6) \times 7 \times (8 + 9). \\
9284 &= 1 \times 2 \times (3 + 4567 + 8 \times 9). \\
9285 &= 1 + 2 \times (3 + 4567 + 8 \times 9). \\
9286 &= (1 + 2^3)^4 + 5 \times (67 \times 8 + 9). \\
9287 &= (1 + 2^3) \times 4^5 + 6 \times 7 + 8 + 9. \\
9288 &= 12^3 + (4 + 5 + 6) \times 7 \times 8 \times 9. \\
9289 &= 1 + 2^3 \times (45 + 6 + 78) \times 9. \\
9290 &= 1 \times 2 + 3 \times 4 \times (5 \times 6 + 7 \times 8) \times 9. \\
9291 &= 1 + 2 + 3 \times 4 \times (5 \times 6 + 7 \times 8) \times 9. \\
9292 &= 12^3 + 4 + 56 \times (7 + 8) \times 9. \\
9293 &= 1 \times 23 + (4^5 + 6) \times (-7 + 8) \times 9. \\
9294 &= 12 + 3 \times (4 \times 5 + 6) \times 7 \times (8 + 9). \\
9295 &= (1 + 2 \times 3 + 4) \times (56 + 789). \\
9296 &= 1 + (23 + 4 \times 5 \times 6) \times (7 \times 8 + 9). \\
9297 &= 12^3 \times 4 + 5 \times (6 \times 78 + 9). \\
9298 &= 1^2 + (3 + 4^5 + 6) \times (-7 + 8) \times 9. \\
9299 &= (12 \times (34 + 5 + 6) + 7) \times (8 + 9). \\
9300 &= 12 + 3 \times 4 \times (5 \times 6 + 7 \times 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9231 &= (9 \times 8 + 7) \times 65 + 4^{(3+2+1)}. \\
9232 &= 9 + 87 \times (6 + 5 \times 4 \times (3 + 2)) + 1. \\
9233 &= 9 \times 876 + 5 + 4^3 \times 21. \\
9234 &= 9 + 8 + (7 + 65) \times 4^3 \times 2 + 1. \\
9235 &= (9 \times 8 + 7 \times 6) \times (5 + 4) \times 3^2 + 1. \\
9236 &= (9 \times 8 \times 7 \times 6 + 54) \times 3 + 2 \times 1. \\
9237 &= (9 \times 8 + 7 + 65) \times 4^3 + 21. \\
9238 &= ((9 + 8 + 7) \times 6 + 5) \times (4^3 - 2 \times 7). \\
9239 &= (9 + 8) \times 7 + 6^5 + 4^3 \times 21. \\
9240 &= (9 + 8 + 76 \times 5 + 43) \times 21. \\
9241 &= (9 + 8 \times (7 \times 6 + 5)) \times 4 \times 3 \times 2 + 1. \\
9242 &= 9 + 8 \times ((76 \times 5 + 4) \times 3 + 2) + 1. \\
9243 &= (9 \times 8 + 7) \times (6 \times 5 + 43 \times 2 + 1). \\
9244 &= 9876 - 5^4 - 3 \times 2 - 1. \\
9245 &= (9 + 8 \times (76 \times 5 + 4)) \times 3 + 2 \times 1. \\
9246 &= 9 + 8 \times (76 \times 5 + 4) \times 3 + 21. \\
9247 &= ((98 + 7) \times (6 + 5) \times 4 + 3) \times 2 + 1. \\
9248 &= 9 + (8 \times 7 + 6) \times (5 + (4 \times 3)^2) + 1. \\
9249 &= 9 \times 8 + 7 \times (6 \times 5 \times 43 + 21). \\
9250 &= (9 + 8 + (7 + 65) \times 4^3) \times 2 \times 1. \\
9251 &= (9 + 8 + (7 + 65) \times 4^3) \times 2 + 1. \\
9252 &= (9 + 8 + 765 \times 4) \times 3 + 21. \\
9253 &= 9 \times 8 \times 7 + 6 \times (5 + 4)^3 \times 2 + 1. \\
9254 &= 9 \times 8 + 765 \times 4 \times 3 + 2 \times 1. \\
9255 &= 9 \times 8 + 765 \times 4 \times 3 + 2 + 1. \\
9256 &= (9 + 8 \times 76) \times (5 + 4 + 3 \times 2) + 1. \\
9257 &= 9 + 8 \times 76 + 5 \times (4 \times 3)^{(2+1)}. \\
9258 &= 9 + (8 \times 76 \times 5 + 43) \times (2 + 1). \\
9259 &= 9 + (8 + 7 \times 6) \times 5 \times (4 + 32 + 1). \\
9260 &= 98 + (7 \times 654 + 3) \times 2 \times 1. \\
9261 &= (9 + 8 + 76 + 54) \times 3 \times 21. \\
9262 &= (9 \times (87 + 6) + 5) \times (4 + 3 \times 2 + 1). \\
9263 &= 9 + 8 + 7 - 6 + 5 \times 43^2 \times 1. \\
9264 &= (9 \times 8 + 76 \times 5 \times 4 \times 3) \times 2 \times 1. \\
9265 &= (9 \times 8 + 76 \times 5 \times 4 \times 3) \times 2 + 1. \\
9266 &= 98 \times 7 + 65 \times 4 \times (32 + 1). \\
9267 &= 98 - 76 + 5 \times 43^2 \times 1. \\
9268 &= 9 \times 8 + 76 \times (5 \times 4 \times 3 \times 2 + 1). \\
9269 &= 9 + (8 + 7 \times 65) \times 4 \times (3 + 2 \times 1). \\
9270 &= 9 + (87 + 6 + 54) \times 3 \times 21. \\
9271 &= 9 \times 8 + 7 \times (654 + 3) \times 2 + 1. \\
9272 &= 98 \times (7 + 6) + (5 \times 4)^3 - 2 \times 1. \\
9273 &= 9 \times 8 + 765 \times 4 \times 3 + 21. \\
9274 &= 9 \times 8 \times 7 \times 6 + 5^4 \times (3^2 + 1). \\
9275 &= 9 + 8 + 7 + 6 + 5 \times 43^2 \times 1. \\
9276 &= 9 + 8 + 7 + 6 + 5 \times 43^2 + 1. \\
9277 &= 98 \times (7 + 6) + (5 \times 4)^3 + 2 + 1. \\
9278 &= 9 + 8 + 7 \times (6 + 54 + 3) \times 21. \\
9279 &= 9 \times (8 \times 7 + 654 + 321). \\
9280 &= 98 + 765 \times 4 \times 3 + 2 \times 1. \\
9281 &= 98 + 765 \times 4 \times 3 + 2 + 1. \\
9282 &= 98 \times (76 + 5) + 4^3 \times 21. \\
9283 &= (98 + 7 \times 6 + 5) \times 4^3 + 2 + 1. \\
9284 &= (9 + 8) \times 7 \times (6 + 5 \times 4) \times 3 + 2 \times 1. \\
9285 &= (9 + 8) \times 7 \times (6 + 5 \times 4) \times 3 + 2 + 1. \\
9286 &= (987 + 6) \times 5 + 4321. \\
9287 &= 9 + (8 + 765) \times 4 \times 3 + 2 \times 1. \\
9288 &= 9 + (8 + 765) \times 4 \times 3 + 2 + 1. \\
9289 &= 9 \times 8 + (7 + 65) \times 4^3 \times 2 + 1. \\
9290 &= 9 \times (8 \times 7 + 6 \times 5) \times 4 \times 3 + 2 \times 1. \\
9291 &= 9 \times (8 \times 7 + 6 \times 5) \times 4 \times 3 + 2 + 1. \\
9292 &= 98 \times 76 - 5 + 43^2 \times 1. \\
9293 &= 98 \times 76 - 5 + 43^2 + 1. \\
9294 &= 98 + 76 \times (5 \times 4 \times 3 \times 2 + 1). \\
9295 &= 98 \times (7 + 6) + (5 \times 4)^3 + 21. \\
9296 &= 98 + 7 \times (654 + 3) \times 2 \times 1. \\
9297 &= 98 + 7 \times (654 + 3) \times 2 + 1. \\
9298 &= 9 \times (87 + (6 + 5) \times 43 \times 2) + 1. \\
9299 &= 98 + 765 \times 4 \times 3 + 21. \\
9300 &= (9 + 8 + 76) \times 5 \times 4 \times (3 + 2) \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9301 &= 1 \times 23 \times (4 + 56 \times 7 + 8) + 9. \\
9302 &= 1 + 23 \times (4 + 56 \times 7 + 8) + 9. \\
9303 &= 1 + 2 \times (3 + 4 \times (5 + (6 + 7) \times 89)). \\
9304 &= 1 \times 2^3 \times (4^5 + 67 + 8 \times 9). \\
9305 &= 1 + 2^3 \times (4^5 + 67 + 8 \times 9). \\
9306 &= 1 + 2^{(3+4)} \times (5 + 67) + 89. \\
9307 &= 1 + (2 + 3 \times 4 \times (5 \times 6 + 7 \times 8)) \times 9. \\
9308 &= (1 + 2) \times (3 \times (4^5 + 6) + 7) + 8 + 9. \\
9309 &= (1 + 2^3) \times 4^5 + 6 + 78 + 9. \\
9310 &= 1 \times 2 \times (3^4 \times 56 + 7 \times (8 + 9)). \\
9311 &= 1 + 2 \times (3^4 \times 56 + 7 \times (8 + 9)). \\
9312 &= 12 \times (3 \times (45 + 6) + 7 \times 89). \\
9313 &= 1^2 + 3 \times (45 \times 67 + 89). \\
9314 &= 1 \times 2 + 3 \times (45 \times 67 + 89). \\
9315 &= (12 + 345 + 678) \times 9. \\
9316 &= 1 + 23 \times (45 \times 6 + (7 + 8) \times 9). \\
9317 &= 1 \times 2 + 3 \times (4 + 5 + 6 \times 7 \times 8) \times 9. \\
9318 &= 1 \times 2 \times (3 + 4567 + 89). \\
9319 &= 1 + 2 \times (3 + 4567 + 89). \\
9320 &= 1 \times 2^3 \times (4^5 + 6 + (7 + 8) \times 9). \\
9321 &= 12 \times (34 + 56 + 7) \times 8 + 9. \\
9322 &= -1 \times 23 + (4 + 5 + 6) \times 7 \times 89. \\
9323 &= 1 - 23 + (4 + 5 + 6) \times 7 \times 89. \\
9324 &= 12 + 3 \times (45 \times 67 + 89). \\
9325 &= 1 + (2 + 34) \times (5 \times (6 \times 7 + 8) + 9). \\
9326 &= (1 + 2 \times 3 \times 4 \times 56) \times 7 - 89. \\
9327 &= 12 + 3 \times (4 + 5 + 6 \times 7 \times 8) \times 9. \\
9328 &= 1 \times 2^3 \times (4 + 5 + (6 + 7) \times 89). \\
9329 &= 1 + 2^3 \times (4 + 5 + (6 + 7) \times 89). \\
9330 &= (1 + 2^3) \times 4^5 + 6 \times 7 + 8 \times 9. \\
9331 &= 1 \times 2^3 \times 4^5 + 67 \times (8 + 9). \\
9332 &= 1 + 2^3 \times 4^5 + 67 \times (8 + 9). \\
9333 &= 1 + (2 + 3) \times 4^5 + 6 \times 78 \times 9. \\
9334 &= 1 + ((2 + 34 \times 5 \times 6 + 7) + 8) \times 9. \\
9335 &= (1 + 2 + 3 \times 45) \times 67 + 89. \\
9336 &= (1 + 23) \times (45 \times 6 + 7 \times (8 + 9)). \\
9337 &= 1 + 2 \times 3 \times 4 \times 56 \times 7 - 8 \times 9. \\
9338 &= 1 - 2^3 + (4 + 5 + 6) \times 7 \times 89. \\
9339 &= (1 + 2 \times 3 + 4) \times (56 \times (7 + 8) + 9). \\
9340 &= 1 - 2 \times 3 + (4 + 5 + 6) \times 7 \times 89. \\
9341 &= 12 \times (3^4 + 5 \times 6) \times 7 + 8 + 9. \\
9342 &= (1 \times 2^3 \times 45 + 678) \times 9. \\
9343 &= 1 + 2 \times (3^4 \times 56 + (7 + 8) \times 9). \\
9344 &= (1^2 + 3) \times 4 \times (567 + 8 + 9). \\
9345 &= (1 \times 2 \times 34 + 5 \times 6 + 7) \times 89. \\
9346 &= 1^{23} + (4 + 5 + 6) \times 7 \times 89. \\
9347 &= (12^3 + 4) \times 5 + 678 + 9. \\
9348 &= 1^2 \times 3 + (4 + 5 + 6) \times 7 \times 89. \\
9349 &= 1^2 + 3 + (4 + 5 + 6) \times 7 \times 89. \\
9350 &= 1 + 2^3 \times 4^5 + (6 + 7) \times 89. \\
9351 &= (1 + 2^3 \times 45 + 678) \times 9. \\
9352 &= 1 + 2 \times 3 + (4 + 5 + 6) \times 7 \times 89. \\
9353 &= 1 \times 2^3 + (4 + 5 + 6) \times 7 \times 89. \\
9354 &= 1 + 2^3 + (4 + 5 + 6) \times 7 \times 89. \\
9355 &= (1 + 2^3) \times 4^5 + 67 + 8 \times 9. \\
9356 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times 78 - 9. \\
9357 &= (1 + 2^3) \times 4^5 + 6 + (7 + 8) \times 9. \\
9358 &= 1 + 2 \times 3 + 4 \times 5 \times 6 \times 78 - 9. \\
9359 &= (1 + 2) \times (3 \times 4^5 + 6 \times 7) + 8 + 9. \\
9360 &= 12 + 3 + (4 + 5 + 6) \times 7 \times 89. \\
9361 &= 1 + 2 \times (3 + 4 \times 5 + 6 \times 7) \times 8 \times 9. \\
9362 &= 1 \times 2 + 3 \times 4 \times 5 \times (67 + 89). \\
9363 &= 1 + 2 + 3 \times 4 \times 5 \times (67 + 89). \\
9364 &= 1 - 2 \times 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9365 &= 123 \times (4 + 5 + 67) + 8 + 9. \\
9366 &= (1 + 2^3) \times (4^5 + 6) + 7 + 89. \\
9367 &= (12 + (3 + 4) \times (5 + 6) \times 7) \times (8 + 9). \\
9368 &= 1 \times 23 + (4 + 5 + 6) \times 7 \times 89. \\
9369 &= 1^{23} \times 4 \times 5 \times 6 \times 78 + 9. \\
9370 &= 1^{23} + 4 \times 5 \times 6 \times 78 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9301 &= (98 + 7 \times 6 + 5) \times 4^3 + 21. \\
9302 &= 98 \times 76 + 5 + 43^2 \times 1. \\
9303 &= 98 \times 76 + 5 + 43^2 + 1. \\
9304 &= 9 + 8 + 7 \times 6 + 5 \times 43^2 \times 1. \\
9305 &= 9 + 8 + 7 \times 6 + 5 \times 43^2 + 1. \\
9306 &= 9 + (8 + 765) \times 4 \times 3 + 21. \\
9307 &= 987 + 65 \times 4^3 \times 2 \times 1. \\
9308 &= 987 + 65 \times 4 \times 32 + 1. \\
9309 &= 9 + 8 + 7 \times 6 + 5 \times (43^2 + 1). \\
9310 &= 98 \times (76 + 5 + 4 + 3^2 + 1). \\
9311 &= 98 \times (76 + 5 + 4 \times 3 + 2) + 1. \\
9312 &= (9 + 87) \times (6 + 5 + 43 \times 2 \times 1). \\
9313 &= 9 + 8 \times (76 + 543 \times 2 + 1). \\
9314 &= 98 + (7 + 65) \times 4^3 \times 2 \times 1. \\
9315 &= 98 + (7 + 65) \times 4 \times 32 + 1. \\
9316 &= 9 + 8 \times 7 + 6 + 5 \times 43^2 \times 1. \\
9317 &= 9 + 8 \times 7 + 6 + 5 \times 43^2 + 1. \\
9318 &= (98 \times 7 \times 6 + 543) \times 2 \times 1. \\
9319 &= (98 \times 7 \times 6 + 543) \times 2 + 1. \\
9320 &= 9 \times (8 + 7) \times (65 + 4) + 3 + 2 \times 1. \\
9321 &= 9 \times (8 + 7 \times 6) \times 5 \times 4 + 321. \\
9322 &= 9 + (8 + 76 \times 5) \times 4 \times 3 \times 2 + 1. \\
9323 &= 9 - 8 + 76 + 5 \times 43^2 + 1. \\
9324 &= 987 \times 6 + 54 \times 3 \times 21. \\
9325 &= 98 \times 76 + 5^4 \times 3 + 2 \times 1. \\
9326 &= 98 \times 76 + 5^4 \times 3 + 2 + 1. \\
9327 &= -9 + (8 + 7) \times 6 + 5 \times 43^2 + 1. \\
9328 &= (9 \times 87 + 65) \times (4 + 3 \times 2 + 1). \\
9329 &= (9 \times 8 \times 7 + 65 \times 4^3) \times 2 + 1. \\
9330 &= 9 \times 8 + 7 + 6 + 5 \times 43^2 \times 1. \\
9331 &= 9 \times 8 + 7 + 6 + 5 \times 43^2 + 1. \\
9332 &= 98 \times 76 + (5^4 + 3) \times (2 + 1). \\
9333 &= 987 + (6 + 5 \times 4) \times 321. \\
9334 &= (9 + 8) \times (7 + 6 \times (5 + 4)) \times 3^2 + 1. \\
9335 &= 9 \times 8 + 7 + 6 + 5 \times (43^2 + 1). \\
9336 &= 9 \times (8 \times 7 \times 6 + 5 + 4) \times 3 + 21. \\
9337 &= 9 + 8 + 76 + 5 \times 43^2 - 1. \\
9338 &= 9 + 8 + 76 + 5 \times 43^2 \times 1. \\
9339 &= 9 + 8 + 76 + 5 \times 43^2 + 1. \\
9340 &= 9 \times 8 \times 7 + (6 \times 5 + 4^3)^2 \times 1. \\
9341 &= 9 + 8 + (7 + 6 \times 5) \times 4 \times 3 \times 21. \\
9342 &= 9 \times (8 \times 76 + 5 \times 43 \times 2 \times 1). \\
9343 &= 9 \times 876 + (5 + 4)^3 \times 2 + 1. \\
9344 &= 98 \times 76 + 5^4 \times 3 + 21. \\
9345 &= (98 + 7) \times (65 + 4 \times 3 \times 2) \times 1. \\
9346 &= (98 + 7) \times (65 + 4 \times 3 \times 2) + 1. \\
9347 &= 9 + 87 + 6 + 5 \times 43^2 \times 1. \\
9348 &= 9 + 87 + 6 + 5 \times 43^2 + 1. \\
9349 &= 9 + (8 + 7) \times 6 + 5 \times (43^2 + 1). \\
9350 &= (9 + 8) \times ((7 + 6 \times (5 + 4)) \times 3^2 + 1). \\
9351 &= 9 \times (87 + 6 + 5^4 + 321). \\
9352 &= 9 + 87 + 6 + 5 \times (43^2 + 1). \\
9353 &= 9 + (8 + (7 + 6) \times 5) \times 4 \times 32 \times 1. \\
9354 &= 9 + (8 + (7 + 6) \times 5) \times 4 \times 32 + 1. \\
9355 &= 98 + 7 + 6 + 5 \times 43^2 - 1. \\
9356 &= 98 + 7 + 6 + 5 \times 43^2 \times 1. \\
9357 &= 98 + 7 + 6 + 5 \times 43^2 + 1. \\
9358 &= (98 + 7 \times 654 + 3) \times 2 \times 1. \\
9359 &= 9 \times 8 + 7 \times 6 + 5 \times 43^2 \times 1. \\
9360 &= 9 \times 8 + 7 \times 6 + 5 \times 43^2 + 1. \\
9361 &= 98 + 7 + 6 + 5 \times (43^2 + 1). \\
9362 &= 9 \times 8 \times (7 + 6 \times 5 \times 4 + 3) + 2 \times 1. \\
9363 &= 9 \times 87 + 65 \times 4 \times (32 + 1). \\
9364 &= 9 \times 8 + 7 \times 6 + 5 \times (43^2 + 1). \\
9365 &= 98 \times 7 + 6^5 + 43 \times 21. \\
9366 &= 9 \times 8 \times (76 + 54) + 3 + 2 + 1. \\
9367 &= 9 \times 8 \times (76 + 54) + 3 \times 2 + 1. \\
9368 &= 9 - 8 + 7 + 65 \times (4 \times 3)^2 \times 1. \\
9369 &= 9 + 8 \times (76 + 54) \times 3^2 \times 1. \\
9370 &= 9 + 8 \times (76 + 54) \times 3^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9371 &= 1 \times 2 + 3 \times (4 + 5 \times 67 + 8) \times 9. \\
9372 &= 1^2 \times 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9373 &= 1^2 + 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9374 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9375 &= 1 + 2 + 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9376 &= 1 + 2 \times 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9377 &= 1 \times 2^3 + 4 \times 5 \times 6 \times 78 + 9. \\
9378 &= 1 + 2^3 + 4 \times 5 \times 6 \times 78 + 9. \\
9379 &= 1 + 2 \times (3 \times (4^5 + 67 \times 8) + 9). \\
9380 &= (1 + 2) \times (3 \times (4^5 + 6) + 7) + 89. \\
9381 &= 12 + 3 \times (4 + 5 \times 67 + 8) \times 9. \\
9382 &= -1 \times 23 + (4^5 + 6 + 7 + 8) \times 9. \\
9383 &= (123 \times (4 + 5) + 67) \times 8 - 9. \\
9384 &= 12 + 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9385 &= 1 + 2 \times (3 + (4 + 56) \times 78 + 9). \\
9386 &= 1 - 2 - 3 \times (4 - 56 \times 7 \times 8) - 9. \\
9387 &= (12 \times 3^4 + 56 + 7 + 8) \times 9. \\
9388 &= 1 + (2 + 3 \times (4 + 5 \times 67 + 8)) \times 9. \\
9389 &= (1 + 2^3) \times (4^5 + 6) + 7 \times (8 + 9). \\
9390 &= -1 + 2 \times 3 \times 4 \times 56 \times 7 - 8 - 9. \\
9391 &= 1 \times 2 \times 3 \times 4 \times 56 \times 7 - 8 - 9. \\
9392 &= 1 \times 23 + 4 \times 5 \times 6 \times 78 + 9. \\
9393 &= 1 + 23 + 4 \times 5 \times 6 \times 78 + 9. \\
9394 &= 1 + 23 \times (4 + 5 + 6 \times 7) \times 8 + 9. \\
9395 &= 1 \times 2 - 3 + 4 \times (5 \times 6 \times 78 + 9). \\
9396 &= (1 + 2)^3 + 4 \times 5 \times 6 \times 78 + 9. \\
9397 &= (1 + 23 + 4) \times 5 \times 67 + 8 + 9. \\
9398 &= 1 \times 2 + 3 \times (45 \times 6 + 78) \times 9. \\
9399 &= 1 + 2 + 3 \times (45 \times 6 + 78) \times 9. \\
9400 &= 1^2 + 3 + 4 \times (5 \times 6 \times 78 + 9). \\
9401 &= 1 \times 2 + 3 + 4 \times (5 \times 6 \times 78 + 9). \\
9402 &= 1 + 2 + 3 + 4 \times (5 \times 6 \times 78 + 9). \\
9403 &= 1 + 2 \times 3 + 4 \times (5 \times 6 \times 78 + 9). \\
9404 &= 1 \times 2^3 + 4 \times (5 \times 6 \times 78 + 9). \\
9405 &= 12 \times 3 + 4 \times 5 \times 6 \times 78 + 9. \\
9406 &= 1^{23} + (4^5 + 6 + 7 + 8) \times 9. \\
9407 &= 1 \times 23 \times (4 + (5 \times 6 + 7 + 8) \times 9). \\
9408 &= 12 + 3 \times (45 \times 6 + 78) \times 9. \\
9409 &= 1 + (2 \times 34 + 5 \times 6) \times (7 + 89). \\
9410 &= 1 \times 2 + 3 + (4^5 + 6 + 7 + 8) \times 9. \\
9411 &= 12 + 3 + 4 \times (5 \times 6 \times 78 + 9). \\
9412 &= 1 + 2 \times 3 + (4^5 + 6 + 7 + 8) \times 9. \\
9413 &= 12 \times (3^4 + 5 \times 6) \times 7 + 89. \\
9414 &= 1 \times 2 \times 3 \times (4^5 + 67 \times 8 + 9). \\
9415 &= 1 + 2 \times 3 \times (4^5 + 67 \times 8 + 9). \\
9416 &= (12^3 + 4) \times 5 + (6 + 78) \times 9. \\
9417 &= 12 \times (3 + 4) \times (56 + 7 \times 8) + 9. \\
9418 &= 1 + (2^3 + 4 \times 5) \times 6 \times 7 \times 8 + 9. \\
9419 &= 1 \times 23 + 4 \times (5 \times 6 \times 78 + 9). \\
9420 &= 123 \times (4 + 5 + 67) + 8 \times 9. \\
9421 &= 1 + 2 - 34 \times (5 + 6 \times (-7 \times 8 + 9)). \\
9422 &= (1 + 2) \times 3 \times (4^5 + 6 + 7) + 89. \\
9423 &= (1 + 2)^3 + 4 \times (5 \times 6 \times 78 + 9). \\
9424 &= 1 \times 2 \times (3 + (45 \times 6 + 7) \times (8 + 9)). \\
9425 &= 1 \times 2 \times 3 \times 4 \times 56 \times 7 + 8 + 9. \\
9426 &= 1 + 2 \times 3 \times 4 \times 56 \times 7 + 8 + 9. \\
9427 &= 1 + 2 \times ((3 + 45 \times (6 + 7)) \times 8 + 9). \\
9428 &= 1 \times 23 + (4^5 + 6 + 7 + 8) \times 9. \\
9429 &= 1 + 23 + (4^5 + 6 + 7 + 8) \times 9. \\
9430 &= 1^2 + 3 \times (4 + 56 \times 7 \times 8) + 9. \\
9431 &= 1 + 23 \times (4 \times 5 + 6 \times (7 \times 8 + 9)). \\
9432 &= (123 + 45 \times 6) \times (7 + 8 + 9). \\
9433 &= 1 + 2^3 \times (4 + 5) \times (6 \times 7 + 89). \\
9434 &= 1^2 \times (34 + 5 + 67) \times 89. \\
9435 &= (123 \times 4 + 56 + 7) \times (8 + 9). \\
9436 &= 1 + (2 \times 3 + 4 + 5) \times (6 + 7 \times 89). \\
9437 &= 123 \times (4 + 5 + 67) + 89. \\
9438 &= (1 + 2) \times (3 + 4 + 56 \times 7 \times 8) + 9. \\
9439 &= 1 + 2 \times (3 + (4 + 5 \times (6 + 7) \times 8) \times 9). \\
9440 &= 1 \times 2^3 \times (4^5 + 67 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9371 &= 9 \times (87 + 65 \times 4) \times 3 + 2 \times 1. \\
9372 &= 987 + 65 \times 43 \times (2 + 1). \\
9373 &= ((9 + 8) \times 7 \times 6 + 5^4) \times (3 \times 2 + 1). \\
9374 &= (9 \times 8 + 7 + 6 \times 5) \times 43 \times 2 \times 1. \\
9375 &= (9 \times 8 + 7 + 6 \times 5) \times 43 \times 2 + 1. \\
9376 &= -98 + (7 + 6) \times (5 + 4)^3 - 2 - 1. \\
9377 &= 9 + 8 + (7 + 6) \times 5 \times (4 \times 3)^2 \times 1. \\
9378 &= 9 \times (8 + 7) \times (65 + 4) + 3 \times 21. \\
9379 &= (9 + 8 \times (7 + 6)) \times (5 \times 4 + 3 \times 21). \\
9380 &= 98 \times 7 + 6 \times (5 + 4^3) \times 21. \\
9381 &= 9 \times 8 \times (7 + 6 \times 5 \times 4 + 3) + 21. \\
9382 &= -987 + 6 \times 54 \times 32 + 1. \\
9383 &= 9 + (8 \times (7 + 6) + 5) \times 43 \times 2 \times 1. \\
9384 &= 9 + 8 + 7 + 65 \times (4 \times 3)^2 \times 1. \\
9385 &= 98 + 7 \times 6 + 5 \times 43^2 \times 1. \\
9386 &= 98 + 7 \times 6 + 5 \times 43^2 + 1. \\
9387 &= (9 \times 87 + 65 \times 4) \times 3^2 \times 1. \\
9388 &= (9 \times 87 + 65 \times 4) \times 3^2 + 1. \\
9389 &= (9 + 8 + 7) \times 6 + 5 \times 43^2 \times 1. \\
9390 &= 9 \times (87 + 65 \times 4) \times 3 + 21. \\
9391 &= 9 \times (8 + 7) + 6 + 5 \times (43^2 + 1). \\
9392 &= 9 \times 8 \times (76 + 54) + 32 \times 1. \\
9393 &= 9 \times 8 + 76 + 5 \times 43^2 \times 1. \\
9394 &= 9 \times 8 + 76 + 5 \times 43^2 + 1. \\
9395 &= 98 \times 7 \times (6 + 5) + 43^2 \times 1. \\
9396 &= 98 \times 7 \times (6 + 5) + 43^2 + 1. \\
9397 &= 9 \times (8 \times 7 + 6 + 54) \times 3^2 + 1. \\
9398 &= (9 \times 8 + 765 \times 4) \times 3 + 2 \times 1. \\
9399 &= (9 \times 8 + 765 \times 4) \times 3 + 2 + 1. \\
9400 &= -98 + (7 + 6) \times (5 + 4)^3 + 21. \\
9401 &= (98 + 76) \times 54 + 3 + 2 \times 1. \\
9402 &= (98 + 76) \times 54 + 3 + 2 + 1. \\
9403 &= (98 + 76) \times 54 + 3 \times 2 + 1. \\
9404 &= 9 + (8 + 7 \times 6 \times 5) \times 43 + 21. \\
9405 &= (9 + 8 + 765) \times 4 \times 3 + 21. \\
9406 &= (98 + 76) \times 54 + 3^2 + 1. \\
9407 &= 9 + 87 \times (65 + 43) + 2 \times 1. \\
9408 &= 9 + 87 \times (65 + 43) + 2 + 1. \\
9409 &= (9 + 8 + 7 + 6 \times 5 + 43)^2 \times 1. \\
9410 &= (9 + 8 + 7 + 6 \times 5 + 43)^2 + 1. \\
9411 &= 9 + (87 \times 6 \times (5 + 4) + 3) \times 2 \times 1. \\
9412 &= 9 + (87 \times 6 \times (5 + 4) + 3) \times 2 + 1. \\
9413 &= 98 \times (76 + 5 \times 4) + 3 + 2 \times 1. \\
9414 &= 98 \times (76 + 5 \times 4) + 3 + 2 + 1. \\
9415 &= 98 \times (76 + 5 \times 4) + 3 \times 2 + 1. \\
9416 &= 98 \times (76 + 5 \times 4) + 3^2 - 1. \\
9417 &= 98 \times (76 + 5 \times 4) + 3^2 \times 1. \\
9418 &= 98 \times (76 + 5 \times 4) + 3^2 + 1. \\
9419 &= 98 + 76 + 5 \times 43^2 \times 1. \\
9420 &= 98 + 76 + 5 \times 43^2 + 1. \\
9421 &= (9 \times 87 \times 6 + 5 + 4 + 3) \times 2 + 1. \\
9422 &= 98 + (7 + 6 \times 5) \times 4 \times 3 \times 21. \\
9423 &= 9 \times 8 \times (76 + 54) + 3 \times 21. \\
9424 &= (987 + 6 + 54) \times 3^2 + 1. \\
9425 &= 9 + 8 \times 7 + 65 \times (4 \times 3)^2 \times 1. \\
9426 &= 9 + 87 \times (65 + 43) + 21. \\
9427 &= -98 \times 76 + 5^4 \times 3^{(2+\eta)}. \\
9428 &= (98 + 76) \times 54 + 32 \times 1. \\
9429 &= (98 + 76) \times 54 + 32 + 1. \\
9430 &= (9 \times 87 \times 6 + 5 + 4 \times 3) \times 2 \times 1. \\
9431 &= (9 \times 87 \times 6 + 5 + 4 \times 3) \times 2 + 1. \\
9432 &= 98 \times (76 + 5 \times 4) + 3 + 21. \\
9433 &= 9 \times 8 + (7 + 6) \times 5 \times (4 \times 3)^2 + 1. \\
9434 &= 98 \times 7 + 6 \times (5 + 4)^3 \times 2 \times 1. \\
9435 &= 98 \times 7 + 6 \times (5 + 4)^3 \times 2 + 1. \\
9436 &= -(9 + 8) \times 7 + 65 \times (4 + 3) \times 21. \\
9437 &= -9 + 87 + 65 \times (4 \times 3)^2 - 1. \\
9438 &= 9 + 8 \times 7 \times (6 + 54 \times 3) + 21. \\
9439 &= 9 \times 8 + 7 + 65 \times (4 \times 3)^2 \times 1. \\
9440 &= 98 \times (76 + 5 \times 4) + 32 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9441 &= 1 + 2^3 \times (4^5 + 67 + 89). \\
9442 &= 1 \times 2 \times ((3 \times 4 \times 56 \times 7 + 8) + 9). \\
9443 &= (1 \times 2^{(3+4)} + 5) \times (6 + 7 \times 8 + 9). \\
9444 &= 1 + (2^{(3+4)} + 5) \times (6 + 7 \times 8 + 9). \\
9445 &= (1 + 2 \times 3) \times (4 \times 5 \times 67 + 8) + 9. \\
9446 &= 12 + (34 + 5 + 67) \times 89. \\
9447 &= (1^{23} + 4 \times 5 \times 6) \times 78 + 9. \\
9448 &= 1^2 + 3 \times (4 + 56 \times 7 \times 8 + 9). \\
9449 &= 12 \times 3 \times 4 \times 5 \times (6 + 7) + 89. \\
9450 &= 1 + 2 + 3 \times (4 + 56 \times 7 \times 8 + 9). \\
9451 &= 1 + (2 + 3 + 45) \times (6 + 7 + 8) \times 9. \\
9452 &= (1 + 23 + 4) \times 5 \times 67 + 8 \times 9. \\
9453 &= 1 \times 23 \times (4 + 5 \times 67 + 8 \times 9). \\
9454 &= 12^3 + 4 + (5 + 6) \times 78 \times 9. \\
9455 &= (12^3 + 4) \times 5 + 6 + 789. \\
9456 &= (1 + 2) \times (3 + 4 + 56 \times 7 \times 8 + 9). \\
9457 &= 1 + (2 + (3 + 4) \times 56) \times (7 + 8 + 9). \\
9458 &= 1 - 23 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9459 &= (1 \times 2 \times 3 + 4^5 + 6 + 7 + 8) \times 9. \\
9460 &= 1 + (2 \times 3 + 4^5 + 6 + 7 + 8) \times 9. \\
9461 &= 1 - 2 \times (3 - 4 + 5 - 6 \times 789). \\
9462 &= 12^3 \times 4 + 5 \times (6 + 7 \times 8 \times 9). \\
9463 &= 1 + (2 + 3^4) \times (5 \times (6 + 7 + 8) + 9). \\
9464 &= 1 + 2^3 \times 4 \times (5 \times 6 + 7) \times 8 - 9. \\
9465 &= (12 \times 3^4 + 5 \times 6 \times 7) \times 8 + 9. \\
9466 &= 1 + 2 \times 3 \times (4 \times 56 \times 7 + 8) + 9. \\
9467 &= 1 \times (2 + 3) \times 45 \times 6 \times 7 + 8 + 9. \\
9468 &= (1^{234} + 5 + 6) \times 789. \\
9469 &= (1 + 23 + 4) \times 5 \times 67 + 89. \\
9470 &= 1 + (2 + 3) \times 4 \times (5 + 6 \times 78) + 9. \\
9471 &= (1 + 2) \times (3 \times 4 + 56 \times 7 \times 8 + 9). \\
9472 &= 1 \times 2^3 \times (45 + 67 \times (8 + 9)). \\
9473 &= (1 \times 234 \times 5 + 6 + 7) \times 8 + 9. \\
9474 &= (1 + (2 + 3) \times 45 \times 6) \times 7 + 8 + 9. \\
9475 &= 1 + 2 \times (3 \times (4 \times 56 \times 7 + 8) + 9). \\
9476 &= 1 - 2 - 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9477 &= 1^2 \times 3^4 \times (5 \times 6 + 78 + 9). \\
9478 &= 1^2 + 3^4 \times (5 \times 6 + 78 + 9). \\
9479 &= 1 \times 2 + 3^4 \times (5 \times 6 + 78 + 9). \\
9480 &= 1 \times 2 \times 3 \times 4 \times 56 \times 7 + 8 \times 9. \\
9481 &= 1 + 2 \times 3 \times 4 \times 56 \times 7 + 8 \times 9. \\
9482 &= 1 + 2^3 \times 4 \times (5 \times 6 + 7) \times 8 + 9. \\
9483 &= 1^2 \times 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9484 &= 1^2 + 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9485 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9486 &= 1 \times 2 \times 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9487 &= 1 + 2 \times 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9488 &= 1 \times 2^3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9489 &= 12 + 3^4 \times (5 \times 6 + 78 + 9). \\
9490 &= ((1 + 23 + 4) \times 5 + 6) \times (7 \times 8 + 9). \\
9491 &= (-12 + 3 \times 456) \times 7 + 8 - 9. \\
9492 &= 123 + 4 \times 5 \times 6 \times 78 + 9. \\
9493 &= 1 + 2 \times (3 + 4 + 5 + 6 \times 789). \\
9494 &= (1^2 + 3 \times 456) \times 7 - 89. \\
9495 &= 12 + 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9496 &= (1^2 + 3) \times (4 + 5 \times 6 \times (7 + 8 \times 9)). \\
9497 &= 1 \times 2 \times 3 \times 4 \times 56 \times 7 + 89. \\
9498 &= 1 + 2 \times 3 \times 4 \times 56 \times 7 + 89. \\
9499 &= 1 \times 23 \times (4 + 56 \times 7 + 8 + 9). \\
9500 &= 1 + 23 \times (4 + 56 \times 7 + 8 + 9). \\
9501 &= 1 \times (2 + 3 + 4 + 5) \times 678 + 9. \\
9502 &= 1 + (2 + 3 + 4 + 5) \times 678 + 9. \\
9503 &= 1 + 2 \times (3 \times 4 + 5 + 6 \times 789). \\
9504 &= 12 \times (34 + 56 + 78 \times 9). \\
9505 &= 1 + (2 \times 3)^4 \times 5 + 6 \times 7 \times 8 \times 9. \\
9506 &= (1 \times 2 + 3 \times 4) \times (56 + 7 \times 89). \\
9507 &= 1 + 2 \times (3 + 4) \times (56 + 7 \times 89). \\
9508 &= (1 - 2 + 3) \times (4 \times 5 + 6 \times 789). \\
9509 &= (1 + (2 + 3) \times 45) \times 6 \times 7 + 8 + 9. \\
9510 &= 1 \times 2 \times 3 \times ((4 \times 56 \times 7 + 8) + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9441 &= 98 \times (76 + 5 \times 4) + 32 + 1. \\
9442 &= (9 \times 87 \times 6 + 5 \times 4 + 3) \times 2 \times 1. \\
9443 &= (9 \times 87 \times 6 + 5 \times 4 + 3) \times 2 + 1. \\
9444 &= 9 \times 8 \times 7 \times 6 + 5 \times 4 \times 321. \\
9445 &= 9 \times 8 + (7 + 6) \times (5 \times (4 \times 3)^2 + 1). \\
9446 &= (9 \times 8 \times (7 + 6) \times 5 + 43) \times 2 \times 1. \\
9447 &= (9 \times 8 \times (7 + 6) \times 5 + 43) \times 2 + 1. \\
9448 &= 9876 + 5 - 432 - 1. \\
9449 &= 9 + 8 + 7 + 65 \times ((4 \times 3)^2 + 1). \\
9450 &= 9 \times (87 + 65 \times 4 + 3) \times (2 + 1). \\
9451 &= 9 \times (8 + 7 + 6) \times (5 + 43 + 2) + 1. \\
9452 &= (9 + 8) \times (76 + 5 \times 4 \times (3 + 21)). \\
9453 &= (98 + 765 \times 4) \times 3 - 21. \\
9454 &= (9 + 8) \times (7 + 6 + 543) + 2 \times 1. \\
9455 &= (9 + 8) \times (7 + 6 + 543) + 2 + 1. \\
9456 &= (9 \times 8 + 7) \times 65 + 4321. \\
9457 &= 9 + 87 + 65 \times (4 \times 3)^2 + 1. \\
9458 &= 98 + (7 + 6) \times 5 \times (4 \times 3)^2 \times 1. \\
9459 &= (98 + 76) \times 54 + 3 \times 21. \\
9460 &= 9 + 8 + 7 \times (65 + 4 \times 321). \\
9461 &= (9 \times 8 + 7 \times 65 \times 4) \times (3 + 2) + 1. \\
9462 &= 9 \times 87 + 6^5 + 43 \times 21. \\
9463 &= (9 + 8) \times 7 \times 65 + (4 \times 3)^{(2+1)}. \\
9464 &= ((98 + 7) \times 6 \times 5 + 4) \times 3 + 2 \times 1. \\
9465 &= 98 + 7 + 65 \times (4 \times 3)^2 \times 1. \\
9466 &= 98 + 7 + 65 \times (4 \times 3)^2 + 1. \\
9467 &= 9 + 8 + 7 \times 6 \times 5 \times (43 + 2) \times 1. \\
9468 &= (987 + 65) \times (4 + 3 + 2 \times 1). \\
9469 &= (987 + 65) \times (4 + 3 + 2) + 1. \\
9470 &= (9 \times 87 + 6) \times (5 + 4 + 3) + 2 \times 1. \\
9471 &= 98 \times (76 + 5 \times 4) + 3 \times 21. \\
9472 &= (9 \times 8 + 76) \times (54 + 3^2 + 1). \\
9473 &= (9 + 8) \times (7 + 6 + 543) + 21. \\
9474 &= 9 + 8 \times (7 + 6) \times (5 + 43 \times 2) + 1. \\
9475 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 - 3 - 2 \times 1. \\
9476 &= (98 + 765 \times 4) \times 3 + 2 \times 1. \\
9477 &= (98 + 765 \times 4) \times 3 + 2 + 1. \\
9478 &= 9 \times (87 + 6 \times 5) \times (4 + 3 + 2) + 1. \\
9479 &= (9 + 8) \times 7 + 65 \times (4 \times 3)^2 \times 1. \\
9480 &= (987 + 6 \times 5^4 + 3) \times 2 \times 1. \\
9481 &= (987 + 6 \times 5^4 + 3) \times 2 + 1. \\
9482 &= 9 + (8 + (7 + 65) \times 4) \times 32 + 1. \\
9483 &= (98 + 765 \times 4 + 3) \times (2 + 1). \\
9484 &= 9 + (8 + 7) \times (6 + 5^4) + 3^2 + 1. \\
9485 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 3 + 2 \times 1. \\
9486 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 3 + 2 + 1. \\
9487 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
9488 &= (98 \times 7 \times 6 + 5^4 + 3) \times 2 \times 1. \\
9489 &= (98 \times 7 \times 6 + 5^4 + 3) \times 2 + 1. \\
9490 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 3^2 + 1. \\
9491 &= (9 + 8 \times 7) \times (6 \times 5 + 43) \times 2 + 1. \\
9492 &= (9 \times 87 \times 6 + 5 + 43) \times 2 \times 1. \\
9493 &= (98 + 765) \times (4 + 3 \times 2 + 1). \\
9494 &= 9 + 8 + (7 + 6) \times ((5 + 4) \times 3)^2 \times 1. \\
9495 &= (98 + 765 \times 4) \times 3 + 21. \\
9496 &= 9 + 8 + (7 + 6) \times (5 + 4)^3 + 2 \times 1. \\
9497 &= 9 + 8 + (7 + 6) \times (5 + 4)^3 + 2 + 1. \\
9498 &= 9 + (8 + 7) \times (6 + 5^4) + 3 + 21. \\
9499 &= 9 - 8 + (7 + 6) \times (5 + 4)^3 + 21. \\
9500 &= (9 \times (87 \times 6 + 5) + 4 + 3) \times 2 \times 1. \\
9501 &= 9 + (8 + 76 \times 5 + 4^3) \times 21. \\
9502 &= 9 + 8 + 7 \times (6 + 5 + 4^3 \times 21). \\
9503 &= (9 + 8) \times (7 + 6 + 543 + 2 + 1). \\
9504 &= 9 \times 8 \times (7 + 6 + 5 + 4) \times 3 \times 2 \times 1. \\
9505 &= 9 \times 8 \times (7 + 65) + 4321. \\
9506 &= 98 \times (7 + 65 + 4 \times 3 \times 2 + 1). \\
9507 &= 9 \times (8 \times 7 + 6) \times (5 + 4 \times 3) + 21. \\
9508 &= 9 - 8 \times 7 + 65 \times (4 + 3) \times 21. \\
9509 &= 9 \times 876 + 5 \times (4 + 321). \\
9510 &= (9 \times 87 \times 6 + 54 + 3) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9511 &= 1 + 2 \times 3 \times (4 \times 56 \times 7 + 8 + 9). \\
9512 &= -123 - 4 + 567 \times (8 + 9). \\
9513 &= 12 \times 3 \times (4 \times 5 + 6 + 7) \times 8 + 9. \\
9514 &= 1^2 + 3 \times (4 + 56 \times 7) \times 8 + 9. \\
9515 &= 1 + 2 \times (3 + 4 \times 5 + 6 \times 789). \\
9516 &= 12 \times 3 + 4 \times 5 \times 6 \times (7 + 8 \times 9). \\
9517 &= -1 \times 23 + 4 \times 5 \times (6 \times 78 + 9). \\
9518 &= (1 \times 2 + 3 \times 456) \times 7 - 8 \times 9. \\
9519 &= 123 + 4 \times (5 \times 6 \times 78 + 9). \\
9520 &= (12 + 3 \times 4 + 56) \times 7 \times (8 + 9). \\
9521 &= 1 + 2 \times (3 + 45 \times 6 + 7) \times (8 + 9). \\
9522 &= 12^3 \times 4 + 5 \times 6 \times (78 + 9). \\
9523 &= (1^2 + 34 + 5 + 67) \times 89. \\
9524 &= -1 + (23 \times 4 + 5 \times 6) \times 78 + 9. \\
9525 &= 12 + 3 \times (4 + 56 \times 7) \times 8 + 9. \\
9526 &= 1 + (23 \times 4 + 5 \times 6) \times 78 + 9. \\
9527 &= ((1 - 2 \times 3)^4 + 567) \times 8 - 9. \\
9528 &= 123 + (4^5 + 6 + 7 + 8) \times 9. \\
9529 &= 1 \times (2 + 3) \times (4 + 5 \times 6) \times 7 \times 8 + 9. \\
9530 &= 1 \times 2 \times (3 + 4^5 + 6 \times 7 \times 89). \\
9531 &= (1 + 2) \times 3 \times (45 \times 6 + 789). \\
9532 &= 1^2 + 3 \times ((4 + 56 \times 7) \times 8 + 9). \\
9533 &= 1 \times 2 + 3 \times ((4 + 56 \times 7) \times 8 + 9). \\
9534 &= 1 + 2 + 3 \times ((4 + 56 \times 7) \times 8 + 9). \\
9535 &= 1 \times (2 + 3) \times (45 \times 6 \times 7 + 8 + 9). \\
9536 &= (1 \times (2 \times 3)^4 + 56) \times 7 + 8 \times 9. \\
9537 &= (1 + 2) \times (34 + 56 \times 7 \times 8 + 9). \\
9538 &= 1 \times 2 \times ((3 + 4) \times 5 + 6 \times 789). \\
9539 &= 1 \times (2 + 3) \times 45 \times 6 \times 7 + 89. \\
9540 &= 1 + (2 + 3) \times 45 \times 6 \times 7 + 89. \\
9541 &= 12^3 + 4^5 + 6789. \\
9542 &= 1 \times 2 + (3 + 4 + 5) \times (6 + 789). \\
9543 &= 1 + 2 + (3 + 4 + 5) \times (6 + 789). \\
9544 &= 1^2 + 3 + 4 \times 5 \times (6 \times 78 + 9). \\
9545 &= 1 \times 2 + 3 + 4 \times 5 \times (6 \times 78 + 9). \\
9546 &= 1 + 2 + 3 + 4 \times 5 \times (6 \times 78 + 9). \\
9547 &= 1 + 2 \times (34 + 5 + 6 \times 789). \\
9548 &= 1 \times 2^3 + 4 \times 5 \times (6 \times 78 + 9). \\
9549 &= 1 + 2^3 + 4 \times 5 \times (6 \times 78 + 9). \\
9550 &= 1 + ((2 + 3)^4 + 5 \times 6) \times (7 + 8) + 9. \\
9551 &= (1 - 23) \times 4 + 567 \times (8 + 9). \\
9552 &= 12 + (3 + 4 + 5) \times (6 + 789). \\
9553 &= ((1 + 2 + 3)^4 + 56) \times 7 + 89. \\
9554 &= 1 + ((2 \times 3)^4 + 56) \times 7 + 89. \\
9555 &= 12 + 3 + 4 \times 5 \times (6 \times 78 + 9). \\
9556 &= (1^2 + 3) \times (4 + 5 \times (6 \times 78 + 9)). \\
9557 &= (1 + 23 + 4) \times (5 + 6 \times 7 \times 8) + 9. \\
9558 &= 1^2 \times 3^4 \times (5 + (6 + 7) \times 8 + 9). \\
9559 &= (1^{23} + 4 \times 5 \times 6) \times (7 + 8 \times 9). \\
9560 &= (1 + (2 \times 3)^4 + 56) \times 7 + 89. \\
9561 &= (1 + 2^3) \times 4^5 + 6 \times 7 \times 8 + 9. \\
9562 &= 1 + 2 + 3 \times 456 \times 7 - 8 - 9. \\
9563 &= 1 \times 23 + 4 \times 5 \times (6 \times 78 + 9). \\
9564 &= 1 \times 2 \times (3 + 45 + 6 \times 789). \\
9565 &= 1 + 2 \times (3 + 45 + 6 \times 789). \\
9566 &= 1 + (2 + 3) \times ((4 + 5 \times 6) \times 7 \times 8 + 9). \\
9567 &= (1 + 2)^3 + 4 \times 5 \times (6 \times 78 + 9). \\
9568 &= 1 \times 2^3 \times 4 \times (5 \times 6 \times 7 + 89). \\
9569 &= 1 + 2^3 \times 4 \times (5 \times 6 \times 7 + 89). \\
9570 &= (12 + 3) \times (4 + 5 + 6 + 7 \times 89). \\
9571 &= 1 \times 2 \times (3 + 4) \times (5 + 678) + 9. \\
9572 &= 1 + 2 \times (3 + 4) \times (5 + 678) + 9. \\
9573 &= -1 \times 2 + 3 \times 456 \times 7 + 8 - 9. \\
9574 &= -1 - 2 + 3 \times 456 \times 7 - 8 + 9. \\
9575 &= -1 \times 2 + 3 \times 456 \times 7 - 8 + 9. \\
9576 &= 1 \times 2 \times 3^4 \times 56 + 7 \times 8 \times 9. \\
9577 &= 1 + 2 \times 3^4 \times 56 + 7 \times 8 \times 9. \\
9578 &= 1 + 2 + 3 \times 456 \times 7 + 8 - 9. \\
9579 &= 1 \times 2 + 3 \times 456 \times 7 - 8 + 9. \\
9580 &= 1 \times (2 + 3) \times 4 \times (5 + 6 \times (7 + 8 \times 9)).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9511 &= (9 \times 87 \times 6 + 54 + 3) \times 2 + 1. \\
9512 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 32 \times 1. \\
9513 &= 9 \times 876 + 543 \times (2 + 1). \\
9514 &= (9 + 8 \times 7 + 6) \times (5 + 4 \times 32 + 1). \\
9515 &= 9 \times 8 + 7 \times (65 + 4 \times 321). \\
9516 &= 9 \times 87 \times (6 + 5) + 43 \times 21. \\
9517 &= (9 \times 87 \times 6 + 5 \times 4 \times 3) \times 2 + 1. \\
9518 &= 9 - 8 + 7 - 6 \times 5 \times (4 - 321). \\
9519 &= -98 - 7 + 6^5 + 43^2 - 1. \\
9520 &= (9 + 8) \times 7 \times (65 + 4 \times 3 + 2 + 1). \\
9521 &= 9 + 8 + (7 + 65) \times 4 \times (32 + 1). \\
9522 &= 987 \times 6 + (5 \times 4 \times 3)^2 \times 1. \\
9523 &= 987 \times 6 + (5 \times 4 \times 3)^2 + 1. \\
9524 &= 9 \times (8 \times 76 - 5) + 4^3 \times 2 + 1. \\
9525 &= 9 + 876 + 5 \times (4 \times 3)^{2+1}. \\
9526 &= (9 \times 87 + 6 + 5) \times 4 \times 3 - 2 \times 1. \\
9527 &= (9 + 8 + 76 \times 5) \times 4 \times 3 \times 2 - 1. \\
9528 &= (9 + 8 + 76 \times 5) \times 4 \times 3 \times 2 \times 1. \\
9529 &= 9 + 8 \times 7 \times (6 + 54 \times 3 + 2 \times 1). \\
9530 &= (9 \times 87 + 6 + 5) \times 4 \times 3 + 2 \times 1. \\
9531 &= 9 \times (876 + 54 \times 3 + 21). \\
9532 &= 9 \times 87 + 6 \times (5 + 4)^3 \times 2 + 1. \\
9533 &= 9 \times (87 + 6 \times 54 \times 3) + 2 \times 1. \\
9534 &= (9 \times 87 \times 6 + 5 + 4^3) \times 2 \times 1. \\
9535 &= (9 \times 87 \times 6 + 5 + 4^3) \times 2 + 1. \\
9536 &= ((9 + 8) \times 7 + 6 \times 5) \times (43 + 21). \\
9537 &= 9 + 8 \times (7 \times (6 + 54 \times 3 + 2) + 1). \\
9538 &= (9 \times 8 + 7 \times (6 + 5)) \times 4^3 + 2 \times 1. \\
9539 &= (9 \times 8 + 7 \times (6 + 5)) \times 4^3 + 2 + 1. \\
9540 &= 9 \times ((8 + 7) \times 65 + 4^3 + 21). \\
9541 &= 98 + 7 \times (65 + 4 \times 321). \\
9542 &= (9 \times (87 - 6) + 5) \times (4 + 3^2 \times 1). \\
9543 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 3 \times 21. \\
9544 &= (9 + 8) \times 7 + 65 \times ((4 \times 3)^2 + 1). \\
9545 &= -9 \times 8 - 7 + 6^5 + 43^2 - 1. \\
9546 &= (98 + 7 + 6) \times (54 + 32 \times 1). \\
9547 &= (98 + 7 + 6) \times (54 + 32) + 1. \\
9548 &= 98 \times 7 \times 6 + 5432 \times 1. \\
9549 &= 98 \times 7 \times 6 + 5432 + 1. \\
9550 &= 9 \times (87 + 6 \times 54 \times 3 + 2) + 1. \\
9551 &= 9 \times 8 + (7 + 6) \times (5 + 4)^3 + 2 \times 1. \\
9552 &= (9 \times 8 + 76 \times 5 \times 4) \times 3 \times 2 \times 1. \\
9553 &= (9 \times 8 + 76 \times 5 \times 4) \times 3 \times 2 + 1. \\
9554 &= (9 + 8) \times (76 + 54 \times 3^2 \times 1). \\
9555 &= (98 + 7) \times (6 \times (5 + 4 + 3 \times 2) + 1). \\
9556 &= 9876 + 5 - 4 - 321. \\
9557 &= 9 \times 8 + 7 \times (6 + 5 + 4^3 \times 21). \\
9558 &= 9 \times (87 + 654 + 321). \\
9559 &= (9 \times 8 + 7) \times (6 + 5) \times (4 + 3 \times 2 + 1). \\
9560 &= (9 + 8 + 7 \times 6) \times 54 \times 3 + 2 \times 1. \\
9561 &= (9 + 8 + 7 \times 6) \times 54 \times 3 + 2 + 1. \\
9562 &= 9 \times 8 + (7 + 6) \times (((5 + 4) \times 3)^2 + 1). \\
9563 &= 9 - 8 + 7 + 65 \times (4 + 3) \times 21. \\
9564 &= 9 \times 8 \times 7 + 6^5 + 4 \times 321. \\
9565 &= ((9 + 87 \times 6) \times (5 + 4) + 3) \times 2 + 1. \\
9566 &= (9 + 8 \times 7 \times (6 \times 5 + 4)) \times (3 + 2) + 1. \\
9567 &= 987 + 65 \times 4 \times (32 + 1). \\
9568 &= ((9 + 8 + 7 \times 6) \times 5 + 4) \times 32 \times 1. \\
9569 &= ((9 + 8 + 7 \times 6) \times 5 + 4) \times 32 + 1. \\
9570 &= (98 + 76) \times 5 \times (4 + 3 \times 2 + 1). \\
9571 &= (9 + 8) \times (76 + 54 \times 3^2 + 1). \\
9572 &= 9 \times 8 + 76 \times 5 \times (4 \times 3 \times 2 + 1). \\
9573 &= 9 \times 8 \times 76 + 5 + 4^{(3 \times 2)} \times 1. \\
9574 &= 9 \times 8 \times 76 + 5 + 4^{(3 \times 2)} + 1. \\
9575 &= 98 + (7 + 6) \times ((5 + 4) \times 3)^2 \times 1. \\
9576 &= 9 \times 8 \times (7 + 6 + 5 \times 4 \times 3 \times 2 \times 1). \\
9577 &= 98 + (7 + 6) \times (5 + 4)^3 + 2 \times 1. \\
9578 &= 9 \times (87 + 65) \times (4 + 3) + 2 \times 1. \\
9579 &= 9 + 8 + 7 + 65 \times (4 + 3) \times 21. \\
9580 &= 9 + 87 \times (65 + 43 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9581 &= (1 + (2 + 3) \times 45) \times 6 \times 7 + 89. \\
9582 &= (1 + 2) \times (34 \times 5 + 6 \times 7 \times 8 \times 9). \\
9583 &= (1 + 2 + 34) \times (5 \times (6 \times 7 + 8) + 9). \\
9584 &= (-1 + 2 + 3 \times 456) \times 7 - 8 + 9. \\
9585 &= 1^2 \times 3 \times 45 \times (6 + 7 \times 8 + 9). \\
9586 &= 1 + (23 + 4) \times 5 \times (6 + 7 \times 8 + 9). \\
9587 &= 1 \times 2 + 3 \times 45 \times (6 + 7 \times 8 + 9). \\
9588 &= 1 \times 2 \times (3 \times 4 \times 5 + 6 \times 789). \\
9589 &= 1 + 2 \times (3 \times 4 \times 5 + 6 \times 789). \\
9590 &= 1 \times 2 + 34 \times (5 \times 6 \times 7 + 8 \times 9). \\
9591 &= 1 + 2 + 34 \times (5 \times 6 \times 7 + 8 \times 9). \\
9592 &= 1 + 23 \times ((4 \times (5 + 6) + 7) \times 8 + 9). \\
9593 &= 1^2 \times 3 \times 456 \times 7 + 8 + 9. \\
9594 &= 12 \times 3^4 \times 5 + 6 \times 789. \\
9595 &= 1 \times 2 + 3 \times 456 \times 7 + 8 + 9. \\
9596 &= 1 + 2 + 3 \times 456 \times 7 + 8 + 9. \\
9597 &= 12 + 3 \times 45 \times (6 + 7 \times 8 + 9). \\
9598 &= (123 + 4 \times 5) \times 67 + 8 + 9. \\
9599 &= 12^3 + (456 + 7) \times (8 + 9). \\
9600 &= 1^2 \times 3 \times 4 \times (5 + 6 + 789). \\
9601 &= 12^3 \times 4 + 5 \times 67 \times 8 + 9. \\
9602 &= 1 \times 2 + 3 \times 4 \times (5 + 6 + 789). \\
9603 &= (123 \times 4 + 567 + 8) \times 9. \\
9604 &= 1^2 + (3 + 4 \times 5 \times 6) \times 78 + 9. \\
9605 &= 12 + 3 \times 456 \times 7 + 8 + 9. \\
9606 &= 1 + 2 + (3 + 4 \times 5 \times 6) \times 78 + 9. \\
9607 &= 1 \times (2 + 3 \times 456) \times 7 + 8 + 9. \\
9608 &= 1 + (2 + 3 \times 456) \times 7 + 8 + 9. \\
9609 &= 1 \times 2 \times 3 \times 4 \times (56 \times 7 + 8) + 9. \\
9610 &= 1 + 2 \times 3 \times 4 \times (56 \times 7 + 8) + 9. \\
9611 &= (1 + 2 \times 3) \times (4 \times (5 + 6 \times 7 \times 8) + 9). \\
9612 &= 12 + 3 \times 4 \times (5 + 6 + 789). \\
9613 &= 1 + 2 \times (3 + 4 + 5 + 6 \times 7) \times 89. \\
9614 &= (1 + 2 + 3 \times 456) \times 7 + 8 + 9. \\
9615 &= 12 + (3 + 4 \times 5 \times 6) \times 78 + 9. \\
9616 &= 1 \times 2^3 \times (45 + (6 + 7) \times 89). \\
9617 &= 1 + 2^3 \times (45 + (6 + 7) \times 89). \\
9618 &= 1 \times (2 + 3 + 4 + 5) \times (678 + 9). \\
9619 &= 1 + (2 + 3 + 4 + 5) \times (678 + 9). \\
9620 &= 1 \times (23 \times 4 + 56) \times (7 \times 8 + 9). \\
9621 &= 1 + (23 \times 4 + 56) \times (7 \times 8 + 9). \\
9622 &= (1 \times 2 + 3 \times 4 \times (5 + 6 \times 7)) \times (8 + 9). \\
9623 &= 1 + (2 + 3 \times 4 \times (5 + 6 \times 7)) \times (8 + 9). \\
9624 &= 12 + 3 \times 4 \times (5 + 6 + 78) \times 9. \\
9625 &= 1 \times 2 \times (34 + 567) \times 8 + 9. \\
9626 &= 1 + 2 \times (34 + 567) \times 8 + 9. \\
9627 &= 1^2 \times 3 \times (456 \times 7 + 8 + 9). \\
9628 &= 1^2 + 3 \times (456 \times 7 + 8 + 9). \\
9629 &= 1 \times 2 + 3 \times (456 \times 7 + 8 + 9). \\
9630 &= 1 + 2 + 3 \times (456 \times 7 + 8 + 9). \\
9631 &= 1 + (2 + 3 \times 4 \times (5 + 6 + 78)) \times 9. \\
9632 &= (1 + 2 \times 3^4) \times 56 + 7 \times 8 \times 9. \\
9633 &= (1 + 2) \times (3 \times 4^5 + 67 + 8 \times 9). \\
9634 &= 1 \times 2 \times ((34 + 567) \times 8 + 9). \\
9635 &= 1 + 2 \times ((34 + 567) \times 8 + 9). \\
9636 &= (1 + 2) \times (3 + 456 \times 7 + 8 + 9). \\
9637 &= 12^3 \times 4 + 5 \times (67 \times 8 + 9). \\
9638 &= (1 \times 23 \times 4 + 5 \times 6) \times (7 + 8 \times 9). \\
9639 &= 12 + 3 \times (456 \times 7 + 8 + 9). \\
9640 &= 1^{234} + 567 \times (8 + 9). \\
9641 &= 1 + 2 \times (3^4 + 5 + 6 \times 789). \\
9642 &= 1 + 2 + 3^4 \times (5 + 6 \times 7 + 8 \times 9). \\
9643 &= 1^{23} \times 4 + 567 \times (8 + 9). \\
9644 &= 1^{23} + 4 + 567 \times (8 + 9). \\
9645 &= (12 + 3) \times (4 + 567 + 8 \times 9). \\
9646 &= 1^2 \times 3 + 4 + 567 \times (8 + 9). \\
9647 &= 1^2 + 3 + 4 + 567 \times (8 + 9). \\
9648 &= 1^2 \times 3 \times 456 \times 7 + 8 \times 9. \\
9649 &= 1^2 + 3 \times 456 \times 7 + 8 \times 9. \\
9650 &= 1 \times 2 + 3 \times 456 \times 7 + 8 \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9581 &= ((9 \times 8 + 7) \times 6 + 5) \times 4 \times (3 + 2) + 1. \\
9582 &= (98 + (7 + 65) \times 43) \times (2 + 1). \\
9583 &= 98 + 7 \times (6 + 5 + 4^3 \times 21). \\
9584 &= (9 + 8) \times 7 \times 65 + 43^2 \times 1. \\
9585 &= (9 + 8) \times 7 \times 65 + 43^2 + 1. \\
9586 &= 9 + (8 + 76) \times (54 + 3) \times 2 + 1. \\
9587 &= 9 \times (87 \times 6 + 543) + 2 \times 1. \\
9588 &= 9 \times (87 \times 6 + 543) + 2 + 1. \\
9589 &= 9 + 8 \times 7 \times 6 + 5 \times 43^2 - 1. \\
9590 &= 9 + 8 \times 7 \times 6 + 5 \times 43^2 \times 1. \\
9591 &= 9 + 8 \times 7 \times 6 + 5 \times 43^2 + 1. \\
9592 &= (-9 + 876 + 5) \times (4 + 3 \times 2 + 1). \\
9593 &= 9 + 8 \times (765 + 432 + 1). \\
9594 &= 9 \times (8 + 7 \times (65 + 43 \times 2) + 1). \\
9595 &= 9 + 8 \times 7 \times 6 + 5 \times (43^2 + 1). \\
9596 &= 98 + (7 + 6) \times (5 + 4)^3 + 21. \\
9597 &= 9 \times 8 \times (76 + 54 + 3) + 21. \\
9598 &= 98 + 76 \times 5 \times (4 \times 3 \times 2 + 1). \\
9599 &= 9 \times 876 + 5 \times (4 + 3)^{(2+1)}. \\
9600 &= 9 + 87 + 6^5 + (4 \times 3)^{(2+1)}. \\
9601 &= 9 + 8 + 7 \times (6 \times 5 + 4 + 3)^2 + 1. \\
9602 &= (9 + 8 + 7 + 6) \times 5 \times 4^3 + 2 \times 1. \\
9603 &= 9 \times (87 \times 6 + 543 + 2 \times 1). \\
9604 &= 98 \times (7 + 6 \times 5 + 4 \times 3) \times 2 \times 1. \\
9605 &= 98 \times (7 + 6 \times 5 + 4 \times 3) \times 2 + 1. \\
9606 &= (9 + 8 + 7 \times 65 \times (4 + 3)) \times (2 + 1). \\
9607 &= 9 + 8 + 7 \times ((6 \times 5 + 4 + 3)^2 + 1). \\
9608 &= 98 \times 76 + 5 \times 432 \times 1. \\
9609 &= 98 \times 76 + 5 \times 432 + 1. \\
9610 &= 9 + (8 \times (7 + 6 \times 5) + 4) \times 32 + 1. \\
9611 &= 9 \times 87 \times 6 + (5 + 4 \times 3)^{(2+1)}. \\
9612 &= 9 \times 876 + 54 \times 32 \times 1. \\
9613 &= 9 \times 876 + 54 \times 32 + 1. \\
9614 &= 9 + (8 + 7 \times 6 + 5 + 43)^2 + 1. \\
9615 &= 9 \times (8 + 76 + 5) \times 4 \times 3 + 2 + 1. \\
9616 &= -9 + 8 - 7 + 6^5 + 43^2 - 1. \\
9617 &= 9 \times 876 + 5 + (4 \times 3)^{(2+1)}. \\
9618 &= (9 + 8 + 7 \times (6 + 54 + 3)) \times 21. \\
9619 &= 9 \times 87 + (6 \times 5 + 4^3)^2 \times 1. \\
9620 &= 9 + 8 \times 7 + 65 \times (4 + 3) \times 21. \\
9621 &= (9 + 8 + 7 + 6) \times 5 \times 4^3 + 21. \\
9622 &= (9 + 8) \times ((7 \times 6 + 5) \times 4 \times 3 + 2 \times 1). \\
9623 &= (9 + 8) \times 7 + 6^5 + (4 \times 3)^{(2+1)}. \\
9624 &= 9 \times 8 \times 7 + 6^5 + 4^3 \times 21. \\
9625 &= (9 + 8 \times (7 \times 6 + 5)) \times (4 \times 3 \times 2 + 1). \\
9626 &= 9876 - 5 \times ((4 + 3)^2 + 1). \\
9627 &= 9 \times 8 + 7 \times 65 \times (4 + 3) \times (2 + 1). \\
9628 &= (9 - 8 \times 7 \times 6 - 5) \times (4 - 32 - 1). \\
9629 &= 9876 + 5 - 4 \times 3 \times 21. \\
9630 &= 9 \times (8 + 7 + 6 \times 5 + 4^3 + 2) + 1). \\
9631 &= 9 \times ((8 + 76 + 5) \times 4 \times 3 + 2) + 1. \\
9632 &= (9 + (8 + (7 + 6) \times 5) \times 4) \times 32 \times 1. \\
9633 &= 9 \times (8 + 76 + 5) \times 4 \times 3 + 21. \\
9634 &= 9 \times 8 + 7 + 65 \times (4 + 3) \times 21. \\
9635 &= 9 + 8 + 7 \times (6 \times 5 + 4^3 \times 21). \\
9636 &= (9 + 8 \times 7) \times 6 + 5 \times 43^2 + 1. \\
9637 &= 9 \times 87 \times (6 + 5) + 4^3 + 2 \times 1. \\
9638 &= 9 \times 87 \times (6 + 5) + 4^3 + 2 + 1. \\
9639 &= (9 \times 8 + 76 \times 5 + 4 + 3) \times 21. \\
9640 &= (9 + 8 \times 7) \times 6 + 5 \times (43^2 + 1). \\
9641 &= 9 \times 8 \times 7 \times (6 + 5) + 4^{(3 \times 2)} + 1. \\
9642 &= (9 + 8) \times (76 + 5) \times (4 + 3) + 2 + 1. \\
9643 &= -9 - 8 + 7 \times 6 \times 5 \times (43 + 2 + 1). \\
9644 &= ((9 \times 8 + 7) \times (65 - 4) + 3) \times 2 \times 1. \\
9645 &= 9 + (8 + (7 + 6) \times 5) \times 4 \times (32 + 1). \\
9646 &= 98 - 7 + 65 \times (4 + 3) \times 21. \\
9647 &= -(9 - 87 + 6 + 5) \times (4 \times 3)^2 - 1. \\
9648 &= (9 \times 8 + 7 + 65) \times (4 + 3 \times 21). \\
9649 &= 9 + 8 + 7 + 6^5 + 43^2 \times 1. \\
9650 &= 9 + 8 + 7 + 6^5 + 43^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
9651 &= 12 \times 3^4 + (5 + 6) \times 789. \\
9652 &= 1 + 2^3 + 4 + 567 \times (8 + 9). \\
9653 &= 1 \times 2 + 3 \times 4 + 567 \times (8 + 9). \\
9654 &= 1 + 2 + 3 \times 4 + 567 \times (8 + 9). \\
9655 &= (1^2 + 3 \times 456) \times 7 + 8 \times 9. \\
9656 &= (1 + 2)^3 \times (45 + 6) \times 7 + 8 + 9. \\
9657 &= 12 \times 3 \times 4 \times (5 + 6 + 7 \times 8) + 9. \\
9658 &= 12 + 3 + 4 + 567 \times (8 + 9). \\
9659 &= 1 \times 2 + (3^4 + 5 \times 6) \times (78 + 9). \\
9660 &= 12 + 3 \times 456 \times 7 + 8 \times 9. \\
9661 &= 1 + (2^3 + 4 \times 5) \times (6 \times 7 \times 8 + 9). \\
9662 &= 1 \times (2 + 3 \times 456) \times 7 + 8 \times 9. \\
9663 &= 12 + 3 \times 4 + 567 \times (8 + 9). \\
9664 &= 1 + 2 \times 3 \times 4 + 567 \times (8 + 9). \\
9665 &= 1^2 \times 3 \times 456 \times 7 + 89. \\
9666 &= 1^2 + 3 \times 456 \times 7 + 89. \\
9667 &= 1 \times 2 + 3 \times 456 \times 7 + 89. \\
9668 &= 1 + 2 + 3 \times 456 \times 7 + 89. \\
9669 &= 1 \times 23 \times 4 \times 5 \times (6 + 7 + 8) + 9. \\
9670 &= 1 + 23 \times 4 \times 5 \times (6 + 7 + 8) + 9. \\
9671 &= 1 \times 2^3 \times 4 + 567 \times (8 + 9). \\
9672 &= 1 + 2^3 \times 4 + 567 \times (8 + 9). \\
9673 &= 1^2 \times 34 + 567 \times (8 + 9). \\
9674 &= 1^2 + 34 + 567 \times (8 + 9). \\
9675 &= 1 \times 2 + 34 + 567 \times (8 + 9). \\
9676 &= 1 + 2 + 34 + 567 \times (8 + 9). \\
9677 &= 12 + 3 \times 456 \times 7 + 89. \\
9678 &= 1 + 23 \times (4 + 56) \times 7 + 8 + 9. \\
9679 &= 12 \times 3 + 4 + 567 \times (8 + 9). \\
9680 &= 1 + (2 + 3 \times 456) \times 7 + 89. \\
9681 &= (1 \times 2 \times 34 + 56) \times 78 + 9. \\
9682 &= 1 + (2 \times 34 + 56) \times 78 + 9. \\
9683 &= 1 + 2 \times (3 \times 4 + 5 + 67 \times 8 \times 9). \\
9684 &= 12 \times 3^4 \times 5 + 67 \times 8 \times 9. \\
9685 &= 12 + 34 + 567 \times (8 + 9). \\
9686 &= (1 + 2 + 3 \times 456) \times 7 + 89. \\
9687 &= 1 + 2 + (34 \times 5 \times 6 + 7 \times 8) \times 9. \\
9688 &= 1 \times 2 \times (3 + 4) \times (5 + 678 + 9). \\
9689 &= 1 + 2 \times (3 + 4) \times (5 + 678 + 9). \\
9690 &= (1 + 234 + 5 \times 67) \times (8 + 9). \\
9691 &= 1 + (2 + 3 \times 4 + 5) \times (6 + 7 \times 8 \times 9). \\
9692 &= -12 - 3 + (4 + 567) \times (8 + 9). \\
9693 &= (1 + 2) \times 3 \times 4^5 + 6 \times 78 + 9. \\
9694 &= 1 \times 2 \times (3 + 4 \times 5 + 67 \times 8 \times 9). \\
9695 &= 1 \times 2 \times 3^4 \times 56 + 7 \times 89. \\
9696 &= 1 + 2 \times 3^4 \times 56 + 7 \times 89. \\
9697 &= (1 \times 2 \times 3^4 + 5 + 6) \times 7 \times 8 + 9. \\
9698 &= 1 + (2 \times 3^4 + 5 + 6) \times 7 \times 8 + 9. \\
9699 &= (12 + 3) \times 4 + 567 \times (8 + 9). \\
9700 &= 1 + (2^{(3+4)} \times 5 + 6) \times (7 + 8) + 9. \\
9701 &= (12 + 34 + 56 + 7) \times 89. \\
9702 &= 12^3 \times 4 + 5 \times (6 + 7 \times 8) \times 9. \\
9703 &= 1 + 2 \times (3 + 4 \times (56 + 78)) \times 9. \\
9704 &= 1 \times 2^3 \times (4^5 + (6 + 7 + 8) \times 9). \\
9705 &= (1 \times 234 \times 5 + 6 \times 7) \times 8 + 9. \\
9706 &= (1 + 2^3)^4 + 56 \times 7 \times 8 + 9. \\
9707 &= 1 \times 2 \times 34 + 567 \times (8 + 9). \\
9708 &= 1 + 2 \times 34 + 567 \times (8 + 9). \\
9709 &= 1 - 2 + 3 + (4 + 567) \times (8 + 9). \\
9710 &= 1^2 \times 3 + (4 + 567) \times (8 + 9). \\
9711 &= 1^2 + 3 + (4 + 567) \times (8 + 9). \\
9712 &= 1 + (2 + 3^4) \times (5 \times 6 + 78 + 9). \\
9713 &= 1 \times 2 \times 3 + (4 + 567) \times (8 + 9). \\
9714 &= 1 + 2 \times 3 + (4 + 567) \times (8 + 9). \\
9715 &= 1 \times 2^3 + (4 + 567) \times (8 + 9). \\
9716 &= 1 + 2^3 + (4 + 567) \times (8 + 9). \\
9717 &= 123 \times (4 \times 5 + 6 \times 7 + 8 + 9). \\
9718 &= 1^2 + (3 + 4 \times 5 \times 6) \times (7 + 8 \times 9). \\
9719 &= 1 \times 2 + (3 + 4 \times 5 \times 6) \times (7 + 8 \times 9). \\
9720 &= 12 \times 3 \times (4 + 5 + 6 + 7 + 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9651 &= 9 + 87 + 65 \times (4 + 3) \times 21. \\
9652 &= 9876 - 5 \times (43 + 2) + 1. \\
9653 &= 98 + 7 \times 65 \times (4 + 3) \times (2 + 1). \\
9654 &= (9 \times 8 \times (7 + 6 + 54) + 3) \times 2 \times 1. \\
9655 &= 9 \times 8 + 7 \times (6 \times 5 + 4 + 3)^2 \times 1. \\
9656 &= 9 \times 8 + 7 \times (6 \times 5 + 4 + 3)^2 + 1. \\
9657 &= (98 + 7 + 6) \times (54 + 32 + 1). \\
9658 &= 9 + (8 \times 7 + 6 + 5) \times (4 \times 3)^2 + 1. \\
9659 &= 9876 - 5 \times 43 - 2 \times 1. \\
9660 &= 98 + 7 + 65 \times (4 + 3) \times 21. \\
9661 &= (98 + 7) \times (6 + 54 + 32) + 1. \\
9662 &= (98 + 7 \times 6) \times (5 + 4^3) + 2 \times 1. \\
9663 &= (98 + 7 \times 6) \times (5 + 4^3) + 2 + 1. \\
9664 &= 9876 - 5 \times 43 + 2 + 1. \\
9665 &= 9 + 8 \times (7 + 6 \times 5 \times 4 \times (3^2 + 1)). \\
9666 &= 987 + 6^5 + 43 \times 21. \\
9667 &= (9 \times (8 + 76) + 5^4) \times (3 \times 2 + 1). \\
9668 &= -9 - 8 - (7 - 6^5/4) \times (3 + 2) \times 1. \\
9669 &= 9 + (8 + 76) \times ((54 + 3) \times 2 + 1). \\
9670 &= 9876 - 5 \times (43 - 2) - 1. \\
9671 &= 987 \times 6 + 5^4 \times 3 \times 2 - 1. \\
9672 &= 987 \times 6 + 5^4 \times 3 \times 2 \times 1. \\
9673 &= 987 \times 6 + 5^4 \times 3 \times 2 + 1. \\
9674 &= (9 + 8) \times 7 + 65 \times (4 + 3) \times 21. \\
9675 &= (9 \times (8 + 7 \times 6) + 5^4) \times 3^2 \times 1. \\
9676 &= (9 + 8 + 7 \times 6) \times (54 \times 3 + 2 \times 1). \\
9677 &= 9 + 8765 + 43 \times 21. \\
9678 &= 9 \times (8 + 7) \times 65 + 43 \times 21. \\
9679 &= 9876 - 5 - 4^3 \times (2 + 1). \\
9680 &= (9 + 8 - 7) \times (65 + 43 \times 21). \\
9681 &= 987 + 6 \times (5 + 4^3) \times 21. \\
9682 &= 98 + 7 \times (6 \times 5 + 4 + 3)^2 + 1. \\
9683 &= -98 \times 7 + 6 \times 54 \times 32 + 1. \\
9684 &= 9 + (8 + 7) \times (6 \times 54 + 321). \\
9685 &= -9 - 8 \times 7 + 6 \times 5 \times (4 + 321). \\
9686 &= 9 - 8 - (7 - 6^5/4) \times (3 + 2) \times 1. \\
9687 &= (9 \times 8 \times 76 - 5^4 - 3) \times 2 - 1. \\
9688 &= (98 \times 7 + 6) \times (5 + 4 + 3 + 2 \times 1). \\
9689 &= (98 \times 7 + 6) \times (5 + 4 + 3 + 2) + 1. \\
9690 &= 9 + 8 \times 7 + 6^5 + 43^2 \times 1. \\
9691 &= 9 + 8 \times 7 + 6^5 + 43^2 + 1. \\
9692 &= (98 \times 7 + 65 \times 4^3) \times 2 \times 1. \\
9693 &= (98 \times 7 + 65 \times 4^3) \times 2 + 1. \\
9694 &= 9 \times (8 + 7 \times 6) + 5 \times 43^2 - 1. \\
9695 &= 9 \times (8 + 7 \times 6) + 5 \times 43^2 \times 1. \\
9696 &= (9 + 87) \times (65 + 4 + 32 \times 1). \\
9697 &= (9 + 87) \times (65 + 4 + 32) + 1. \\
9698 &= 9 \times 87 \times 6 + 5^4 \times (3^2 - 1). \\
9699 &= 9 + (8 + 7) \times (6 + 5 \times 4 \times 32 \times 1). \\
9700 &= 9 + (876 + 5) \times (4 + 3 \times 2 + 1). \\
9701 &= 98 \times (7 + 6 + 5 \times 4) \times 3 - 2 + 1. \\
9702 &= 98 \times (7 + 6 + 54 + 32 \times 1). \\
9703 &= 9 \times (87 \times 6 + 5 + 4 \times 3) \times 2 + 1. \\
9704 &= 9 \times 8 + 7 + 6^5 + 43^2 \times 1. \\
9705 &= 9 \times 8 + 7 + 6^5 + 43^2 + 1. \\
9706 &= -98 - 76 \times (-5 - 4 \times (32 - 1)). \\
9707 &= (9 + 8) \times (7 \times 6 + (5 \times 4 + 3)^2 \times 1). \\
9708 &= (987 + 6 + 5^4) \times 3 \times 2 \times 1. \\
9709 &= (987 + 6 + 5^4) \times 3 \times 2 + 1. \\
9710 &= (9 \times 8 + 7 - 6) \times (5 + 4 \times 32) + 1. \\
9711 &= 9 \times (8 + 7 \times 6 + 5 + 4(3 + 2) \times 1). \\
9712 &= 9 \times (8 + 7 \times 6 + 5 + 4(3 + 2)) + 1. \\
9713 &= 9876 - 54 \times 3 - 2 + 1. \\
9714 &= 9 + (8 + 7) \times (6 + 5 \times 4 \times 32 + 1). \\
9715 &= (98 + 7 \times 6 + 5) \times (4 + 3 \times 21). \\
9716 &= 98 + 7 \times (6 \times 5 + 4^3 \times 21). \\
9717 &= (98 + 76) \times 54 + 321. \\
9718 &= (9 + 8 \times (7 + 6)) \times (54 + 32 \times 1). \\
9719 &= 9 + 8 + 7 \times (6 + 5 \times 4 \times 3) \times 21. \\
9720 &= 9 \times (87 + 6 \times 54 \times 3 + 21).
\end{aligned}$$

Increasing order

$$\begin{aligned}
9721 &= (123 + 4^5 + 67) \times 8 + 9. \\
9722 &= 12 + 3 + (4 + 567) \times (8 + 9). \\
9723 &= 1 + 2 + 3^4 + 567 \times (8 + 9). \\
9724 &= 1 \times 2 \times 34 \times (56 + 78 + 9). \\
9725 &= 1 + 2 \times 34 \times (56 + 78 + 9). \\
9726 &= 1 \times 2 \times (34 + 5 + 67 \times 8 \times 9). \\
9727 &= 1 + 2 \times (34 + 5 + 67 \times 8 \times 9). \\
9728 &= (1 + 2)^3 \times (45 + 6) \times 7 + 89. \\
9729 &= (12 \times 3 + 4^5 + 6 + 7 + 8) \times 9. \\
9730 &= 1 \times 23 + (4 + 567) \times (8 + 9). \\
9731 &= 1 \times 23 \times 4 + 567 \times (8 + 9). \\
9732 &= 1 + 23 \times 4 + 567 \times (8 + 9). \\
9733 &= 1 + 23 \times (4 + 56) \times 7 + 8 \times 9. \\
9734 &= (1 + 2)^3 + (4 + 567) \times (8 + 9). \\
9735 &= (1 + 23) \times 4 + 567 \times (8 + 9). \\
9736 &= 1 + (2 \times 3 \times 4 + 5) \times 6 \times 7 \times 8 - 9. \\
9737 &= 12 \times (3 + 4 + 5) \times 67 + 89. \\
9738 &= 1 \times 2 \times (3 \times 45 + 6 \times 789). \\
9739 &= 1 + 2 \times (3 \times 45 + 6 \times 789). \\
9740 &= -1 + (2 + 3 + 4 \times 5 \times 6) \times 78 - 9. \\
9741 &= (1 + 2) \times 34 + 567 \times (8 + 9). \\
9742 &= 1 + (2 + 3 + 4 \times 5 \times 6) \times 78 - 9. \\
9743 &= 12 \times 3 + (4 + 567) \times (8 + 9). \\
9744 &= 12 \times 3 \times 45 \times 6 + 7 + 8 + 9. \\
9745 &= 1 + 2 \times (3 + 45 + 67 \times 8 \times 9). \\
9746 &= (1 - 2 + 3) \times (4 + (5 + 67 \times 8) \times 9). \\
9747 &= 123 \times 45 + 6 \times 78 \times 9. \\
9748 &= 1^2 + (3^4 \times 5 + 678) \times 9. \\
9749 &= 1 \times 23 \times (4 + 56) \times 7 + 89. \\
9750 &= 1 + 23 \times (4 + 56) \times 7 + 89. \\
9751 &= (1 + 2 \times 3^4) \times 56 + 7 \times 89. \\
9752 &= 1 \times 23 \times (4 + 5 \times (67 + 8 + 9)). \\
9753 &= (123 + 45 + 6) \times 7 \times 8 + 9. \\
9754 &= 1 + (2 + 3 \times (4 + 5)) \times 6 \times 7 \times 8 + 9. \\
9755 &= -1 - 2 + 34 \times (5 + 6 \times (7 \times 8 - 9)). \\
9756 &= (1^2 + 3^4 \times 5 + 678) \times 9. \\
9757 &= 1 - 2 + 34 \times (5 + 6 \times (7 \times 8 - 9)). \\
9758 &= (1^2 \times 3 + 4 + 567) \times (8 + 9). \\
9759 &= (1 + 2 \times 34 + 56) \times 78 + 9. \\
9760 &= 1 + (2 + 3 + 4 \times 5 \times 6) \times 78 + 9. \\
9761 &= (1 + 2^3) \times 4^5 + 67 \times 8 + 9. \\
9762 &= 1 + 23 \times (4 + 5 \times (6 + 78)) + 9. \\
9763 &= 1 + 2 \times (3 \times 4 + (5 + 67 \times 8) \times 9). \\
9764 &= -1 + 2^{(3 \times 4)} + 5678 - 9. \\
9765 &= 12 \times (345 + 6 \times 78) + 9. \\
9766 &= 123 + 4 + 567 \times (8 + 9). \\
9767 &= 1 \times 2^{(3+4)} + 567 \times (8 + 9). \\
9768 &= 1 \times 2 \times (3 \times 4 \times 5 + 67 \times 8 \times 9). \\
9769 &= 1 + 2 \times 3 \times 4 \times (5 \times 67 + 8 \times 9). \\
9770 &= 1 \times (2 + 3) \times (4 + 5 \times 6 \times (7 \times 8 + 9)). \\
9771 &= 1 + (2 + 3) \times (4 + 5 \times 6 \times (7 \times 8 + 9)). \\
9772 &= 1^2 - 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9773 &= -1 + 2 \times 3^4 \times 56 + 78 \times 9. \\
9774 &= 1 \times 2 \times 3^4 \times 56 + 78 \times 9. \\
9775 &= 1 + 2 \times 3^4 \times 56 + 78 \times 9. \\
9776 &= 1 - 2 + 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9777 &= 1^2 \times 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9778 &= 1^2 + 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9779 &= 1 \times 2 + 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9780 &= 1 \times 2 \times 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9781 &= 1 + 2 \times 3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9782 &= 1 \times 2^3 + (4^5 + 6 + 7 \times 8) \times 9. \\
9783 &= 12 \times 3 \times 4 + 567 \times (8 + 9). \\
9784 &= 1 + 2^{(3 \times 4)} + 5678 + 9. \\
9785 &= 12 \times 3 \times 45 \times 6 + 7 \times 8 + 9. \\
9786 &= 1 \times 23 \times 456 - 78 \times 9. \\
9787 &= 1 + 23 \times 456 - 78 \times 9. \\
9788 &= (123 + 4) \times (5 - 6 + 78) + 9. \\
9789 &= 123 + (4^5 + 6 \times 7 + 8) \times 9. \\
9790 &= (1 \times 23 + 45 + 6 \times 7) \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9721 &= 9 + 87 + 6^5 + 43^2 \times 1. \\
9722 &= 9 + 87 + 6^5 + 43^2 + 1. \\
9723 &= 98 \times (76 + 5 \times 4 + 3) + 21. \\
9724 &= (9 \times 8 + 7) \times 6 + 5 \times (43^2 + 1). \\
9725 &= ((987 - 6) \times 5 - 43) \times 2 + 1. \\
9726 &= 9876 - 5 - (4 \times 3)^2 - 1. \\
9727 &= (9 + 8 \times 7 + 6) \times (5 + 4 \times (32 + 1)). \\
9728 &= (9 + 8 \times 7 + 6 + 5) \times 4 \times 32 \times 1. \\
9729 &= 98 \times (76 + 5 \times 4) + 321. \\
9730 &= 98 + 7 + 6^5 + 43^2 \times 1. \\
9731 &= 98 + 7 + 6^5 + 43^2 + 1. \\
9732 &= 9 \times 8 + 7 \times 6 \times 5 \times (43 + 2 + 1). \\
9733 &= 9876 - (5 + 4 + 3)^2 + 1. \\
9734 &= 9876 + 5 - (4 + 3) \times 21. \\
9735 &= 987 + 6 \times (5 + 4)^3 \times 2 \times 1. \\
9736 &= 987 + 6 \times (5 + 4)^3 \times 2 + 1. \\
9737 &= 9 + (87 + 65) \times (43 + 21). \\
9738 &= 9 \times 876 + 5 + 43^2 \times 1. \\
9739 &= 9 \times 876 + 5 + 43^2 + 1. \\
9740 &= 9 + (87 + 65) \times 4^3 + 2 + 1. \\
9741 &= 98 \times 7 \times 6 + 5^4 \times 3^2 \times 1. \\
9742 &= 98 \times 7 \times 6 + 5^4 \times 3^2 + 1. \\
9743 &= 9876 - 5 - 4 \times 32 \times 1. \\
9744 &= 9 \times 8 \times 7 \times 6 + 5 \times 4^3 \times 21. \\
9745 &= (9 + 8) \times 7 + 6^5 + 43^2 + 1. \\
9746 &= 98 \times 7 + 6^5 + 4 \times 321. \\
9747 &= 9 \times ((8 + 7) \times 65 + 4 \times 3^{(2+1)}). \\
9748 &= 9 \times 8 \times 7 - 6 + 5 \times (43^2 + 1). \\
9749 &= 9876 + 5 - 4 \times (32 + 1). \\
9750 &= (9 + 8 \times 7) \times (65 + 4^3 + 21). \\
9751 &= (9 + 8 \times 7) \times 6 \times (5 \times 4 + 3 + 2) + 1. \\
9752 &= 98 \times 76 + (5 + 43)^2 \times 1. \\
9753 &= 98 \times 76 + (5 + 43)^2 + 1. \\
9754 &= 9 + 8 \times 7 \times 6 \times (5 + 4 \times 3 \times 2) + 1. \\
9755 &= 9 \times 8 \times 7 + 6 + 5 \times 43^2 \times 1. \\
9756 &= 9 \times 8 \times 7 + 6 + 5 \times 43^2 + 1. \\
9757 &= 9 \times (87 + 65 \times (4 + 3)) \times 2 + 1. \\
9758 &= 9 + (87 + 65) \times 4^3 + 21. \\
9759 &= (9 \times 87 + 6 \times 5) \times 4 \times 3 + 2 + 1. \\
9760 &= 9 \times (8 + 7) + 6^5 + 43^2 \times 1. \\
9761 &= 9 \times 876 + 5^4 \times 3 + 2 \times 1. \\
9762 &= 9 \times 876 + 5^4 \times 3 + 2 + 1. \\
9763 &= (98 \times 7 + 65) \times (4 + 3^2 \times 1). \\
9764 &= (98 \times 7 + 65) \times (4 + 3^2) + 1. \\
9765 &= (98 + 7) \times (6 + 54 + 32 + 1). \\
9766 &= 9 \times (87 \times (6 + 5) + 4 \times 32) + 1. \\
9767 &= 9 + 8 + (7 + 6) \times ((5 + 4)^3 + 21). \\
9768 &= 9 \times 876 + (5^4 + 3) \times (2 + 1). \\
9769 &= -9 + (8 + 7) \times 654 - 32 \times 1. \\
9770 &= ((9 + 8 \times 7) \times 6 \times 5 + 4) \times (3 + 2) \times 1. \\
9771 &= ((9 + 8 \times 7) \times 6 \times 5 + 4) \times (3 + 2) + 1. \\
9772 &= (9 + 8 + 7 - 6) \times 543 - 2 \times 1. \\
9773 &= 9876 + 5 - 4 \times 3^{(2+1)}. \\
9774 &= 9 \times (87 \times 6 + 543 + 21). \\
9775 &= (9 \times 8 + 7 + 6) \times ((54 + 3) \times 2 + 1). \\
9776 &= 9 + 87 \times 6 + 5 \times 43^2 \times 1. \\
9777 &= 9 + 87 \times 6 + 5 \times 43^2 + 1. \\
9778 &= 9 \times (876 + 5) + 43^2 \times 1. \\
9779 &= 9 \times (876 + 5) + 43^2 + 1. \\
9780 &= 9 \times 876 + 5^4 \times 3 + 21. \\
9781 &= 9 + 87 \times 6 + 5 \times (43^2 + 1). \\
9782 &= (9 + 8 + 7 \times 6 \times 5) \times 43 + 21. \\
9783 &= (9 \times (8 + 7) \times 6 + 5) \times 4 \times 3 + 2 + 1. \\
9784 &= 9876 - 5 - 43 \times 2 - 1. \\
9785 &= 9876 - 5 - 43 \times 2 \times 1. \\
9786 &= (9 + (8 + 7) \times 6 \times 5 + 4 + 3) \times 21. \\
9787 &= 98 \times (76 + 5) + 43^2 \times 1. \\
9788 &= 98 \times (76 + 5) + 43^2 + 1. \\
9789 &= ((9 \times (8 + 7) \times 6 + 5) \times 4 + 3) \times (2 + 1). \\
9790 &= (9 + 876 + 5) \times (4 + 3 \times 2 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
9791 &= 1 + (2 + 3) \times (4 + 5 + 6 + 7) \times 89. \\
9792 &= 12^3 \times 4 + 5 \times 6 \times (7 + 89). \\
9793 &= 1^2 + 3 \times (456 \times 7 + 8 \times 9). \\
9794 &= 1 \times 2 + 3 \times (456 \times 7 + 8 \times 9). \\
9795 &= 1 + 2 + 3 \times (456 \times 7 + 8 \times 9). \\
9796 &= (123 + 4) \times (5 + 6) \times 7 + 8 + 9. \\
9797 &= 1 + (2 \times 34 + 56) \times (7 + 8 \times 9). \\
9798 &= 1 + 23 + (4^5 + 6 + 7 \times 8) \times 9. \\
9799 &= 12 \times 3 \times 45 \times 6 + 7 + 8 \times 9. \\
9800 &= (1 + 23 + 4) \times (5 + 6 \times 7 \times 8 + 9). \\
9801 &= 1 \times 2 \times 3^4 + 567 \times (8 + 9). \\
9802 &= 1 + 2 \times 3^4 + 567 \times (8 + 9). \\
9803 &= 1 \times 2 + 3^4 \times (56 + 7 \times 8 + 9). \\
9804 &= 12 + 3 \times (456 \times 7 + 8 \times 9). \\
9805 &= 1^2 + (3^4 + 5) \times (6 \times 7 + 8 \times 9). \\
9806 &= 1 \times 2 + (3^4 + 5) \times (6 \times 7 + 8 \times 9). \\
9807 &= 12 \times 3 \times 45 \times 6 + 78 + 9. \\
9808 &= 1 \times 2 \times (34 \times 5 + 6 \times 789). \\
9809 &= 1 + 2 \times (34 \times 5 + 6 \times 789). \\
9810 &= 1 \times (2 + 3) \times (45 \times 6 \times 7 + 8 \times 9). \\
9811 &= 1 + (2 \times 3 + 4) \times (5 + (6 + 7) \times 8) \times 9. \\
9812 &= 1 \times 2 \times (34 + 56 \times (78 + 9)). \\
9813 &= 12 + 3^4 \times (56 + 7 \times 8 + 9). \\
9814 &= 1 \times 2 \times ((3 + 4) \times (5 - 6 + 78 \times 9)). \\
9815 &= (1 + (2 + 3 + 4 \times 5) \times 6) \times (7 \times 8 + 9). \\
9816 &= 12 \times 3 \times 45 \times 6 + 7 + 89. \\
9817 &= 1 + 2 \times 3 \times 4 \times (56 \times 7 + 8 + 9). \\
9818 &= -1 + (2 \times 3 + 4 \times 5 \times 6) \times 78 - 9. \\
9819 &= (12 \times 34 + 5 + 678) \times 9. \\
9820 &= 1 \times 2 \times (3^4 + 5 + 67 \times 8 \times 9). \\
9821 &= 12 \times (3 \times 45 \times 6 + 7) + 8 + 9. \\
9822 &= -123 + 45 \times (6 + 7) \times (8 + 9). \\
9823 &= (-1 - 2 + (34 \times 5 + 6) \times 7) \times 8 - 9. \\
9824 &= 1 \times 2^3 \times (4 + (5 + 67) \times (8 + 9)). \\
9825 &= (1 + 2 + 3 \times 4) \times 5 \times (6 \times 7 + 89). \\
9826 &= (1 + 2 \times 3 + 4 + 567) \times (8 + 9). \\
9827 &= 1 - 2 + 3 \times 4 \times (5 \times 6 + 789). \\
9828 &= 12^3 + (4 + 56) \times (7 + 8) \times 9. \\
9829 &= 1 + (2^3 + 4) \times (5 \times 6 + 789). \\
9830 &= 123 + (4 + 567) \times (8 + 9). \\
9831 &= 1 + 2 + 3 \times 4 \times (5 \times 6 + 789). \\
9832 &= 1 + (2 + 3^4 + 5 \times 6) \times (78 + 9). \\
9833 &= ((1 + 2)^3 \times 45 + 6 + 7) \times 8 + 9. \\
9834 &= (1 \times (2 + 3)^4 + 5 \times 6) \times (7 + 8) + 9. \\
9835 &= 1 + ((2 + 3)^4 + 5 \times 6) \times (7 + 8) + 9. \\
9836 &= (1 + 2) \times 3 \times (4^5 + 67) + 8 + 9. \\
9837 &= (1 \times 2 \times 3 + 4 \times 5 \times 6) \times 78 + 9. \\
9838 &= 1 + 2 \times (3 + 4 + 56) \times 78 + 9. \\
9839 &= 12 \times 3 \times 45 \times 6 + 7 \times (8 + 9). \\
9840 &= 123 \times (4 + 5 + 6 + 7 \times 8 + 9). \\
9841 &= 1 + 2 \times 3 \times (4 \times 56 \times 7 + 8 \times 9). \\
9842 &= 1 - 2 + 3 \times (456 \times 7 + 89). \\
9843 &= 1^2 \times 3 \times (456 \times 7 + 89). \\
9844 &= 1^2 + 3 \times (456 \times 7 + 89). \\
9845 &= 1 + 23 \times 4 \times (5 + 6 + 7 + 89). \\
9846 &= 1 + 2 + 3 \times (456 \times 7 + 89). \\
9847 &= 1 + 2 \times ((3 + 4 + 56) \times 78 + 9). \\
9848 &= (12 + 3 \times 45) \times 67 + 8 - 9. \\
9849 &= (1 + (2 + 3)^4 + 5 \times 6) \times (7 + 8) + 9. \\
9850 &= (12 + 3 \times 45) \times 67 - 8 + 9. \\
9851 &= (123 + 4) \times (5 + 6) \times 7 + 8 \times 9. \\
9852 &= (1 + 2) \times (3 + 456 \times 7 + 89). \\
9853 &= (1 \times 2 \times 3^4 + 5) \times (6 \times 7 + 8 + 9). \\
9854 &= 1 \times (2 + 3) \times 4^5 + 6 \times 789. \\
9855 &= 12 + 3 \times (456 \times 7 + 89). \\
9856 &= (1 + 23 + 4) \times (5 \times 67 + 8 + 9). \\
9857 &= (12 \times 3 \times (4 + 5 \times 6) + 7) \times 8 + 9. \\
9858 &= 1 + 2 + 3 \times ((45 + 6) \times 7 + 8) \times 9. \\
9859 &= -1 \times 2 + 3 \times 4^5 + 6789. \\
9860 &= (1 + 2^3 + 4 + 567) \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9791 &= 9876 - 54 - 32 + 1. \\
9792 &= 9 \times 8 \times (76 + 54 + 3 + 2 + 1). \\
9793 &= (9 + 87 + 6) \times (5 + 43) \times 2 + 1. \\
9794 &= (9 \times 8 + 76 + 5) \times 4^3 + 2 \times 1. \\
9795 &= (9 \times 8 + 76 + 5) \times 4^3 + 2 + 1. \\
9796 &= 9876 + 5 - 43 \times 2 + 1. \\
9797 &= -9 + (8 + 7) \times 654 - 3 - 2 + 1. \\
9798 &= 9 \times 8 \times 76 + 5 + 4321. \\
9799 &= (9 \times 8 \times 7 \times 6 + 5^4 \times 3) \times 2 + 1. \\
9800 &= 98 \times (7 + 65 + 4 + 3 + 21). \\
9801 &= (9 \times 8 + 7) \times 6 \times 5 \times 4 + 321. \\
9802 &= 9 \times (87 + 6 \times 5 + 4) \times 3^2 + 1. \\
9803 &= 9 \times (8 \times 7 + 6) + 5 \times 43^2 \times 1. \\
9804 &= 9 \times (8 \times 7 + 6) + 5 \times 43^2 + 1. \\
9805 &= (9 + (8 + 7 + 6) \times 5) \times 43 \times 2 + 1. \\
9806 &= 98 \times 7 + 6^5 + 4^3 \times 21. \\
9807 &= ((98 + 7 + 6 + 5) \times 4 + 3) \times 21. \\
9808 &= 9 \times (8 \times 7 + 6) + 5 \times (43^2 + 1). \\
9809 &= (9 + 8) \times (7 + 6 + 543 + 21). \\
9810 &= 9 \times (87 \times 6 + 5 \times 4 + 3) \times 2 \times 1. \\
9811 &= 9 \times (87 \times 6 + 5 \times 4 + 3) \times 2 + 1. \\
9812 &= 9 + 8 + (7 + 6 \times 543) \times (2 + 1). \\
9813 &= (9 \times 8 + 76 + 5) \times 4^3 + 21. \\
9814 &= 9876 + 5 - 4 - 3 \times 21. \\
9815 &= 9 + 8 \times 7 + 6 \times 5 \times (4 + 321). \\
9816 &= (9 + 8 \times 7) \times (65 + 43 \times 2) + 1. \\
9817 &= 9 + (8 + 7) \times 654 - 3 + 2 - 1. \\
9818 &= 9 \times 87 \times 6 + 5 \times 4^3 + 2 \times 1. \\
9819 &= 9 + (8 + 7 \times 6 \times 5) \times (43 + 2) \times 1. \\
9820 &= 9 + (8 + 7) \times (6 \times 54 + 3) \times 2 + 1. \\
9821 &= (9 + 87) \times 6 + 5 \times 43^2 \times 1. \\
9822 &= (9 + 87) \times 6 + 5 \times 43^2 + 1. \\
9823 &= 987 + (6 \times 5 + 4^3)^2 \times 1. \\
9824 &= 9 + (8 + 7) \times 654 + 3 + 2 \times 1. \\
9825 &= 9 + (8 + 7) \times 654 + 3 \times 2 \times 1. \\
9826 &= 9 + (8 + 7) \times 654 + 3 \times 2 + 1. \\
9827 &= (9 \times 87 \times 6 + 5 \times 43) \times 2 + 1. \\
9828 &= (9 + 87 + 6 + 54) \times 3 \times 21. \\
9829 &= 9 + (8 + 7) \times 654 + 3^2 + 1. \\
9830 &= (9 \times (8 + 7 \times 6 \times 5) + 4) \times (3 + 2) \times 1. \\
9831 &= (9 + 8 \times (7 + 6)) \times (54 + 32 + 1). \\
9832 &= 9876 - 5 \times 4 - 3 - 21. \\
9833 &= 9876 + 5 \times 4 - 3 \times 21. \\
9834 &= 9 + (8 + 7) \times (6 + 5^4 + 3 + 21). \\
9835 &= ((9 + 8 + 7) \times 6 + 5) \times (4^3 + 2) + 1. \\
9836 &= 9876 + 5 - 43 - 2 \times 1. \\
9837 &= 9 + (87 + 65 + 4) \times 3 \times 21. \\
9838 &= 9 \times (8 \times 76 + 5) + 4321. \\
9839 &= 9 + 8 \times 7 + 6 \times 543 \times (2 + 1). \\
9840 &= (9 + (8 + 7) \times 65) \times (4 + 3 + 2 + 1). \\
9841 &= (9 + (8 + 7) \times 65) \times (4 + 3 \times 2) + 1. \\
9842 &= 9876 - 5 + 4 - 32 - 1. \\
9843 &= 9 \times 87 + 6^5 + 4 \times 321. \\
9844 &= 9876 + 5 - 4 - 32 - 1. \\
9845 &= 9876 + 5 - 4 - 32 \times 1. \\
9846 &= (987 + 654) \times 3 \times 2 \times 1. \\
9847 &= (987 + 654) \times 3 \times 2 + 1. \\
9848 &= 98 + (7 + 6) \times ((5 + 4)^3 + 21). \\
9849 &= (98 + 7 \times 65 \times (4 + 3)) \times (2 + 1). \\
9850 &= (9 \times (8 \times (7 + 6) + 5) + 4) \times (3^2 + 1). \\
9851 &= 9 + (8 + 7) \times 654 + 32 \times 1. \\
9852 &= 9 + (8 + 7) \times 654 + 32 + 1. \\
9853 &= 9 \times 8 + 7 + 6 \times 543 \times (2 + 1). \\
9854 &= 9876 + 5 + 4 - 32 + 1. \\
9855 &= 9 \times (8 \times 76 + 54 \times 3^2 + 1). \\
9856 &= 9 \times (8 + 7 + 6 \times 5 \times (4 + 32)) + 1. \\
9857 &= 9 \times (8 + 7) \times (6 \times 5 + 43) + 2 \times 1. \\
9858 &= 9 + (8 \times 7 + 6 + 5) \times (4 + 3) \times 21. \\
9859 &= 9 + (8 + 7 \times 6) \times (5 + 4^3 \times (2 + 1)). \\
9860 &= (98 + 7 + 6 + 5) \times (4^3 + 21).
\end{aligned}$$

Increasing order

$$\begin{aligned}
 9861 &= 1^2 \times 3 \times 4^5 + 6789. \\
 9862 &= 1 + 2 \times 3^4 \times 56 + 789. \\
 9863 &= 1 \times 2 + 3 \times 4^5 + 6789. \\
 9864 &= 1 + 2 + 3 \times 4^5 + 6789. \\
 9865 &= 1^2 \times (34 \times 5 + 6) \times 7 \times 8 + 9. \\
 9866 &= (12 + 3 \times 45) \times 67 + 8 + 9. \\
 9867 &= 1 \times 2 + (34 \times 5 + 6) \times 7 \times 8 + 9. \\
 9868 &= 1 + 2 + (34 \times 5 + 6) \times 7 \times 8 + 9. \\
 9869 &= (1 + 2 \times (3 + 4) \times 5) \times (67 + 8 \times 9). \\
 9870 &= (1 + 2) \times (3 + 4^5) + 6789. \\
 9871 &= 1 + 2 \times (3 + 4) \times 5 \times (6 + (7 + 8) \times 9). \\
 9872 &= (1 + 2 \times 3 \times 4) \times 56 \times 7 + 8 \times 9. \\
 9873 &= 12 + 3 \times 4^5 + 6789. \\
 9874 &= 1 + 234 + 567 \times (8 + 9). \\
 9875 &= (1 + 2 \times 34 + 56) \times (7 + 8 \times 9). \\
 9876 &= 12 \times (3 \times 45 \times 6 + 7) + 8 \times 9. \\
 9877 &= 12 + (34 \times 5 + 6) \times 7 \times 8 + 9. \\
 9878 &= 1 + (23 + 4 + 56) \times 7 \times (8 + 9). \\
 9879 &= (1 + 23 + 45 + 6 \times 7) \times 89. \\
 9880 &= ((1 + 23) \times 4 + 56) \times (7 \times 8 + 9). \\
 9881 &= 1 \times 2^{(3 \times 4)} + 5 \times (6 + 7) \times 89. \\
 9882 &= 1 \times 2 \times 3 \times 4^5 + 6 \times 7 \times 89. \\
 9883 &= 1 + 2 \times 3 \times 4^5 + 6 \times 7 \times 89. \\
 9884 &= (1 + 2 \times 3) \times (4 \times 5 \times 67 + 8 \times 9). \\
 9885 &= (12 + 3) \times (4 + 5 \times (6 \times 7 + 89)). \\
 9886 &= 1 - 2 \times 3 + (4^5 + 67 + 8) \times 9. \\
 9887 &= (1 \times 234 \times 5 + 67) \times 8 - 9. \\
 9888 &= (1 \times 23 \times 4 + 5 + 6) \times (7 + 89). \\
 9889 &= (1 + 2 \times 3 \times 4) \times 56 \times 7 + 89. \\
 9890 &= 1 \times 2 - 3 + (4^5 + 67 + 8) \times 9. \\
 9891 &= (1^{23} \times 4^5 + 67 + 8) \times 9. \\
 9892 &= 1^{23} + (4^5 + 67 + 8) \times 9. \\
 9893 &= 12 \times (3 \times 45 \times 6 + 7) + 89. \\
 9894 &= 1 \times (23 \times 4 + 5) \times (6 + 7 + 89). \\
 9895 &= 1^2 + 3 + (4^5 + 67 + 8) \times 9. \\
 9896 &= 1 \times 2 + 3 + (4^5 + 67 + 8) \times 9. \\
 9897 &= 123 + (4^5 + 6 + 7 \times 8) \times 9. \\
 9898 &= 1 + 2 \times 3 + (4^5 + 67 + 8) \times 9. \\
 9899 &= 1 \times 2^3 + (4^5 + 67 + 8) \times 9. \\
 9900 &= (12 + 3) \times (4 + 567 + 89). \\
 9901 &= 1 + (2 + 3) \times 4 \times (5 + 6 \times 7 + 8) \times 9. \\
 9902 &= 1 \times 2 - (3 \times (4 - 56) \times 7 - 8) \times 9. \\
 9903 &= (1 + 2^3) \times 4^5 + 678 + 9. \\
 9904 &= (-1 + (2 + 3)^4 - 5) \times (6 - 7 + 8 + 9). \\
 9905 &= (1 \times 234 \times 5 + 67) \times 8 + 9. \\
 9906 &= 12 + 3 + (4^5 + 67 + 8) \times 9. \\
 9907 &= 1 + 2 \times (3^4 + 56 \times (78 + 9)). \\
 9908 &= 1234 \times 5 + 6 \times 7 \times 89. \\
 9909 &= 12 \times (3 \times 45 \times 6 + 7 + 8) + 9. \\
 9910 &= -1 + 2^3 \times 4 \times 5 \times (6 + 7 \times 8) - 9. \\
 9911 &= ((1^2 + 3) \times 4 + 567) \times (8 + 9). \\
 9912 &= 12 \times (3 + 4 + 5 \times 6 + 789). \\
 9913 &= 1234 + (5 + 6) \times 789. \\
 9914 &= (1^{23} + 4)^5 + 6789. \\
 9915 &= 1 + (2 + 3)^4 \times 5 + 6789. \\
 9916 &= 12^3 + 4 \times (5 \times 6 - 7) \times 89. \\
 9917 &= (1 + 2 \times 3^4) \times 56 + 789. \\
 9918 &= 1 \times 2 \times (3 \times 45 + 67 \times 8 \times 9). \\
 9919 &= (1 + (2 + 3)^4) \times 5 + 6789. \\
 9920 &= 1 \times 2 + (3 + 4^5 + 67 + 8) \times 9. \\
 9921 &= (12 + 3 \times 45) \times 67 + 8 \times 9. \\
 9922 &= (1^2 + 3^4) \times (56 + 7 \times 8 + 9). \\
 9923 &= 1 - 23 + 45 \times (6 + 7) \times (8 + 9). \\
 9924 &= (1 + 2^3) \times 4^5 + 6 + 78 \times 9. \\
 9925 &= -1 + 2 \times (3 + 4) \times (-5 + 6 \times 7 \times (8 + 9)). \\
 9926 &= 1 \times 2 \times (3 + 4) \times (-5 + 6 \times 7 \times (8 + 9)). \\
 9927 &= 12 \times 3 + (4^5 + 67 + 8) \times 9. \\
 9928 &= 1 \times 2^{(3+4)} \times (5 + 6) \times 7 + 8 \times 9. \\
 9929 &= 1 + 2 \times 34 \times (5 + 6 + (7 + 8) \times 9). \\
 9930 &= 1 + 2^3 \times 4 \times 5 \times (6 + 7 \times 8) + 9.
 \end{aligned}$$

Decreasing order

$$\begin{aligned}
 9861 &= 9876 - 5 - 4 - 3 - 2 - 1. \\
 9862 &= 9 + 8 \times 76 + 5 \times 43^2 \times 1. \\
 9863 &= 9 + 8 \times 76 + 5 \times 43^2 + 1. \\
 9864 &= 9 \times 8 \times (76 + 54 + 3 \times 2 + 1). \\
 9865 &= 9 \times 8 \times 7 \times (6 + 5) + 4321. \\
 9866 &= 9 + (8 + 7) \times (654 + 3) + 2 \times 1. \\
 9867 &= 9 + 8 \times 76 + 5 \times (43^2 + 1). \\
 9868 &= 9876 - 5 - 4 + 3 - 2 \times 1. \\
 9869 &= (9 + 8) \times 7 + 6 \times 5 \times (4 + 321). \\
 9870 &= 9 + 87 + 6 \times 543 \times (2 + 1). \\
 9871 &= (98 + 7) \times ((6 + 5) \times 4 + 3) \times 2 + 1. \\
 9872 &= (9 + 8 \times 76) \times (5 + 4 + 3 \times 2 + 1). \\
 9873 &= 9 + (87 + 6 \times 54) \times (3 + 21). \\
 9874 &= 9 + 8 + 7 \times (6 + 5) \times 4 \times 32 + 1. \\
 9875 &= (98 + 7) \times 6 + 5 \times 43^2 \times 1. \\
 9876 &= (98 + 7) \times 6 + 5 \times 43^2 + 1. \\
 9877 &= (9 + 8) \times ((7 + 6) \times 5 \times 4 + 321). \\
 9878 &= 9876 + 5 \times 4 + 3 - 21. \\
 9879 &= 98 + 7 + 6 \times 543 \times (2 + 1). \\
 9880 &= 9 + 8 + 7 \times (65 + 4^3 \times 21). \\
 9881 &= 9 + 8 \times (7 \times 6 \times 5 + 4^3 \times 2) \times 1. \\
 9882 &= 9 + (8 + 7) \times 654 + 3 \times 21. \\
 9883 &= 9 \times (87 \times 6 + (5 + 4) \times 3) \times 2 + 1. \\
 9884 &= 9876 + 5 - 4 + 3 \times 2 + 1. \\
 9885 &= 9 + (8 + 7) \times (654 + 3) + 21. \\
 9886 &= (9 \times 87 + 65 \times 4^3) \times 2 \times 1. \\
 9887 &= (9 \times 87 + 65 \times 4^3) \times 2 + 1. \\
 9888 &= (9 + 8 \times (7 + 6 \times 5) + 4) \times 32 \times 1. \\
 9889 &= (9 + 8 \times (7 + 6 \times 5) + 4) \times 32 + 1. \\
 9890 &= 9876 + 5 + 4 + 3 + 2 \times 1. \\
 9891 &= 9876 + 5 + 4 + 3 + 2 + 1. \\
 9892 &= 9876 + 5 + 4 + 3 \times 2 + 1. \\
 9893 &= (9 + 8) \times 7 + 6 \times 543 \times (2 + 1). \\
 9894 &= 9876 + 5 + 4 + 3^2 \times 1. \\
 9895 &= 9876 + 5 + 4 + 3^2 + 1. \\
 9896 &= 9876 + 5 + 4 \times 3 + 2 + 1. \\
 9897 &= 9 \times 87 \times (6 + 5) + 4 \times 321. \\
 9898 &= 98 \times (7 + 6 \times 5 + 43 + 21). \\
 9899 &= 98 \times ((7 + 6) \times 5 + 4 + 32) + 1. \\
 9900 &= (9 + 8 + 7 + 6) \times (5 + 4 + 321). \\
 9901 &= 9876 + 5 \times 4 + 3 + 2 \times 1. \\
 9902 &= 9876 + 5 \times 4 + 3 + 2 + 1. \\
 9903 &= 9876 + 5 \times 4 + 3 \times 2 + 1. \\
 9904 &= 9876 - 5 + 4 \times 3 + 21. \\
 9905 &= 9876 + 5 + 4 \times 3 \times 2 \times 1. \\
 9906 &= 9876 + 5 + 4 \times 3 \times 2 + 1. \\
 9907 &= 9876 - 5 + 4 + 32 \times 1. \\
 9908 &= 9876 + 5 - 4 + 32 - 1. \\
 9909 &= 9876 + 5 + 4 + 3 + 21. \\
 9910 &= 9876 + (5 + 4 \times 3) \times 2 \times 1. \\
 9911 &= 9876 + (5 + 4 \times 3) \times 2 + 1. \\
 9912 &= 9876 + (5 + 4 + 3) \times (2 + 1). \\
 9913 &= 9876 + 5 \times (4 + 3) + 2 \times 1. \\
 9914 &= 9876 + 5 + 4 \times 3 + 21. \\
 9915 &= 9876 - 5 + 43 + 2 - 1. \\
 9916 &= 9876 + 5 + 4 + 32 - 1. \\
 9917 &= 9876 + 5 + 4 + 32 \times 1. \\
 9918 &= 9876 + 5 + 4 + 32 + 1. \\
 9919 &= 98 \times (7 + 6 \times 5 + 4^3) + 21. \\
 9920 &= 9876 + 5 \times 4 + 3 + 21. \\
 9921 &= 9876 + 5 \times (4 + 3 + 2) \times 1. \\
 9922 &= 9876 + 5 \times (4 + 3 + 2) + 1. \\
 9923 &= 9876 + (5 \times 4 + 3) \times 2 + 1. \\
 9924 &= 9876 + (5 + 4) \times 3 + 21. \\
 9925 &= (9 + 8 + 76 \times 5) \times (4 \times 3 \times 2 + 1). \\
 9926 &= 9876 + 5 + 43 + 2 \times 1. \\
 9927 &= 9876 + 5 + 43 + 2 + 1. \\
 9928 &= 9876 + 5 \times 4 + 32 \times 1. \\
 9929 &= 9876 + 5 \times 4 + 32 + 1. \\
 9930 &= 9876 + 5 + (4 + 3)^2 \times 1.
 \end{aligned}$$

Increasing order

$$\begin{aligned}
9931 &= 12^3 \times 4 - 5 + 6 \times 7 \times 8 \times 9. \\
9932 &= -12 \times 3 + (45 + 67) \times 89. \\
9933 &= -12 + 3 \times (45 + 6) \times (7 \times 8 + 9). \\
9934 &= -1 \times 2 + 3 \times (45 - 6 + 7) \times 8 \times 9. \\
9935 &= (1 + 2^{(3+4)}) \times (5 + 6) \times 7 + 8 \times 9. \\
9936 &= 12 \times (3 \times 4 + 5 + 67 + 8) \times 9. \\
9937 &= 1 + 2^3 \times (4 + 56 + 78) \times 9. \\
9938 &= (12 + 3 \times 45) \times 67 + 89. \\
9939 &= -1 \times 2 \times 3 + 45 \times (6 + 7) \times (8 + 9). \\
9940 &= 1 + 2 \times 3 \times 4 \times 5 \times (6 + 7 \times 8 + 9). \\
9941 &= 12^3 \times 4 + 5 + 6 \times 7 \times 8 \times 9. \\
9942 &= 1 \times 2 \times 3 \times (4 \times 56 \times 7 + 89). \\
9943 &= 1 + 2 \times 3 \times (4 \times 56 \times 7 + 89). \\
9944 &= 1 \times (2 + 3) \times 4^5 + 67 \times 8 \times 9. \\
9945 &= 1 + (2 + 3) \times 4^5 + 67 \times 8 \times 9. \\
9946 &= 1^{23} + 45 \times (6 + 7) \times (8 + 9). \\
9947 &= 1 \times 2 + 3 \times (45 + 6) \times (7 \times 8 + 9). \\
9948 &= 1^2 \times 3 + 45 \times (6 + 7) \times (8 + 9). \\
9949 &= 1^2 + 3 + 45 \times (6 + 7) \times (8 + 9). \\
9950 &= 1 \times 2 + 3 + 45 \times (6 + 7) \times (8 + 9). \\
9951 &= 1 + 2 + 3 + 45 \times (6 + 7) \times (8 + 9). \\
9952 &= 1 + 2 \times 3 + 45 \times (6 + 7) \times (8 + 9). \\
9953 &= 1 \times 2^3 + 45 \times (6 + 7) \times (8 + 9). \\
9954 &= (12 \times 3^4 + 56 + 78) \times 9. \\
9955 &= 1 + 2 \times (3 \times 4 + 5 + 67 \times 8) \times 9. \\
9956 &= 1 - 2 - 3 - 4 \times 5 \times (6 - 7 \times 8 \times 9). \\
9957 &= 12 + 3 \times (45 + 6) \times (7 \times 8 + 9). \\
9958 &= -1 + (2 + 34 \times 5 + 6) \times 7 \times 8 - 9. \\
9959 &= 1 \times 23 \times (4 + 5 \times (6 + 78) + 9). \\
9960 &= 12 + 3 + 45 \times (6 + 7) \times (8 + 9). \\
9961 &= 1 + 2^3 \times (456 + 789). \\
9962 &= (123 + 456 + 7) \times (8 + 9). \\
9963 &= (1 \times 2^3 + 4^5 + 67 + 8) \times 9. \\
9964 &= 1 + (2^3 + (4^5 + 67 + 8)) \times 9. \\
9965 &= -1 + (234 + 5) \times 6 \times 7 - 8 \times 9. \\
9966 &= (12 \times 3 \times 4 + 5) \times 67 - 8 - 9. \\
9967 &= -1 + 23 + 45 \times (6 + 7) \times (8 + 9). \\
9968 &= 1^{23} \times (45 + 67) \times 89. \\
9969 &= 1 + 23 + 45 \times (6 + 7) \times (8 + 9). \\
9970 &= 1 - 2 + 3 + (45 + 67) \times 89. \\
9971 &= 1^2 \times 3 + (45 + 67) \times 89. \\
9972 &= 12 \times (3 \times 4 + 5 \times 6 + 789). \\
9973 &= 1 \times 2 + 3 + (45 + 67) \times 89. \\
9974 &= 1 + 2 + 3 + (45 + 67) \times 89. \\
9975 &= (1 \times 2 \times 3)^4 + (5 + 6) \times 789. \\
9976 &= 1 \times 2^3 + (45 + 67) \times 89. \\
9977 &= 1 + 2^3 + (45 + 67) \times 89. \\
9978 &= 1 + (2 + 34 \times 5 + 6) \times 7 \times 8 + 9. \\
9979 &= 1 + 2 \times 3 + (4^5 + 6 + 78) \times 9. \\
9980 &= 123 \times (4 + (5 + 6) \times 7) + 8 + 9. \\
9981 &= 12^3 \times 4 + (5 + 6 \times 7) \times 8 \times 9. \\
9982 &= 1 \times 2 \times (3 + 4) \times (5 + 6 + 78 \times 9). \\
9983 &= 12 + 3 + (45 + 67) \times 89. \\
9984 &= (12 + 3^4 + 5 + 6) \times (7 + 89). \\
9985 &= 1 + (2 + 3 \times (4 + 5 \times 6)) \times (7 + 89). \\
9986 &= (12 + 3)^4 / 5 - 67 - 8 \times 9. \\
9987 &= 12 + 3 + (4^5 + 6 + 78) \times 9. \\
9988 &= 1 \times 2 \times (34 \times 5 + 67 \times 8 \times 9). \\
9989 &= 12 \times 3 \times (45 \times 6 + 7) + 8 + 9. \\
9990 &= 1 \times (23 + 45 + 6) \times (7 + 8) \times 9. \\
9991 &= 1 \times 23 + (45 + 67) \times 89. \\
9992 &= 1 + 23 + (45 + 67) \times 89. \\
9993 &= 1 \times 2 \times (34 + 5 \times 6) \times 78 + 9. \\
9994 &= 1 + 2 \times (34 + 5 \times 6) \times 78 + 9. \\
9995 &= 1 \times 23 + (4^5 + 6 + 78) \times 9. \\
9996 &= 1 + 23 + (4^5 + 6 + 78) \times 9. \\
9997 &= 1 + 2 \times (3 \times 4 + 5 \times 6) \times 7 \times (8 + 9). \\
9998 &= 1 \times 2 + (3 + 45 \times (6 + 7)) \times (8 + 9). \\
9999 &= (1 + 23 \times 45 + 67 + 8) \times 9. \\
10000 &= (12 \times 3 \times 4 + 5) \times 67 + 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
9931 &= 9876 + 5 + (4 + 3)^2 + 1. \\
9932 &= 9876 + 5 \times (4 + 3) + 21. \\
9933 &= (9 \times (8 + 7 \times 6) + 5 \times 4 + 3) \times 21. \\
9934 &= 9876 + 54 + 3 + 2 - 1. \\
9935 &= 9876 + 54 + 3 + 2 \times 1. \\
9936 &= 9876 + 54 + 3 + 2 + 1. \\
9937 &= 9876 + 54 + 3 \times 2 + 1. \\
9938 &= 9876 + 5 \times 4 \times 3 + 2 \times 1. \\
9939 &= 9876 + 5 \times 4 \times 3 + 2 + 1. \\
9940 &= 9876 + 54 + 3^2 + 1. \\
9941 &= 9876 + 5 \times (4 + 3^2) \times 1. \\
9942 &= 9876 + 5 \times (4 + 3^2) + 1. \\
9943 &= (9 \times 8 \times ((7 + 6) \times 5 + 4) + 3) \times 2 + 1. \\
9944 &= ((987 + 6) \times 5 + 4 + 3) \times 2 \times 1. \\
9945 &= 9876 + 5 + 43 + 21. \\
9946 &= 9876 + 5 \times (4 + 3) \times 2 \times 1. \\
9947 &= 9876 + 5 + 4^3 + 2 \times 1. \\
9948 &= 9876 + 5 + 4 + 3 \times 21. \\
9949 &= (9 + 8 - 7 + 6) \times (5^4 - 3) - 2 - 1. \\
9950 &= 9 + 8 + 7 \times (6 + 5) \times 43 \times (2 + 1). \\
9951 &= 9876 + 5 \times (4 \times 3 + 2 + 1). \\
9952 &= (9 + 8 \times 76 + 5) \times 4 \times (3 + 2 - 1). \\
9953 &= 98 + 7 \times (6 + 5) \times 4 \times 32 - 1. \\
9954 &= 9876 + 54 + 3 + 21. \\
9955 &= 98 + 7 \times (6 + 5) \times 4 \times 32 + 1. \\
9956 &= 9876 - 5 + 43 \times 2 - 1. \\
9957 &= 9876 + 5 \times 4 \times 3 + 21. \\
9958 &= 9876 + (5 + 4) \times 3^2 + 1. \\
9959 &= 9876 + 5 \times 4 + 3 \times 21. \\
9960 &= (9 + 8) \times 7 \times 6 + 5 \times 43^2 + 1. \\
9961 &= 98 + 7 \times (65 + 4^3 \times 21). \\
9962 &= 9876 + 54 + 32 \times 1. \\
9963 &= 9876 + 54 + 32 + 1. \\
9964 &= (987 + 6 \times 5 \times 4) \times 3^2 + 1. \\
9965 &= (9 \times 8 \times 7 - 6) \times 5 \times 4 + 3 + 2 \times 1. \\
9966 &= 9876 + 5 + 4^3 + 21. \\
9967 &= 9876 + 5 + 43 \times 2 \times 1. \\
9968 &= 9876 + 5 + 43 \times 2 + 1. \\
9969 &= (9 + 8 \times 7 + 6 \times 543) \times (2 + 1). \\
9970 &= (9 \times 8 \times 7 - 6) \times 5 \times 4 + 3^2 + 1. \\
9971 &= 9876 + (5 + 43) \times 2 - 1. \\
9972 &= 9876 + (5 + 43) \times 2 \times 1. \\
9973 &= 9876 + (5 + 43) \times 2 + 1. \\
9974 &= 9 \times (87 - 6) + 5 \times 43^2 \times 1. \\
9975 &= ((9 + 8 \times (7 + 6) + 5) \times 4 + 3) \times 21. \\
9976 &= 9876 + 5 \times 4 \times (3 + 2 \times 1). \\
9977 &= 9876 + 5 + 4 \times (3 + 21). \\
9978 &= 9876 + (54 - 3) \times 2 \times 1. \\
9979 &= (9 + 8) \times (7 \times 6 + 543 + 2 \times 1). \\
9980 &= (987 + 6 + 5) \times (4 + 3 + 2 + 1). \\
9981 &= 9876 + 5 \times (4 + 3) \times (2 + 1). \\
9982 &= ((9 + 8) \times (7 + 6) \times 5 + 4) \times 3^2 + 1. \\
9983 &= (9 \times 8 + 7 \times (6 + 5)) \times (4 + 3 \times 21). \\
9984 &= (98 + 7 \times 6 \times 5 + 4) \times 32 \times 1. \\
9985 &= 9 + 87 \times 65 + 4321. \\
9986 &= 9876 + 5 \times (43 - 21). \\
9987 &= 9 \times 8 \times 76 + 5 \times 43 \times 21. \\
9988 &= (-9 + 8 \times (7 - 6) \times 5^4 + 3) \times 2 \times 1. \\
9989 &= 9876 + 5 + 4 \times 3^{(2+1)}. \\
9990 &= 9876 + (54 + 3) \times 2 \times 1. \\
9991 &= 9876 + (54 + 3) \times 2 + 1. \\
9992 &= (9 + 8 - 7 + 6) \times 5^4 - 3^2 + 1. \\
9993 &= 9876 + 54 + 3 \times 21. \\
9994 &= 9 + 8 \times (7 + 6) \times (5 + 43) \times 2 + 1. \\
9995 &= 9876 + 5 \times 4 \times 3 \times 2 - 1. \\
9996 &= 9876 + 5 \times 4 \times 3 \times 2 \times 1. \\
9997 &= 9876 + 5 \times 4 \times 3 \times 2 + 1. \\
9998 &= 9 + 8 \times 7 + (6 + 5) \times 43 \times 21. \\
9999 &= 98 \times (7 \times 6 + 5 \times 4 \times 3) + 2 + 1. \\
10000 &= (9 \times 8 + 7 \times (6 + 5) \times 4^3) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10001 &= (1 \times 23 \times (4 + 5) \times 6 + 7) \times 8 + 9. \\
10002 &= 1 \times 2 \times ((34 + 5 \times 6) \times 78 + 9). \\
10003 &= (1 + 2 \times 3) \times (4 \times 5 \times 67 + 89). \\
10004 &= 12 \times 3 + (45 + 67) \times 89. \\
10005 &= (12 + 3 \times 4 + 5) \times (6 \times 7 \times 8 + 9). \\
10006 &= 1 + 23 \times (45 + 6 \times (7 \times 8 + 9)). \\
10007 &= (1234 + 5 + 6 + 7) \times 8 - 9. \\
10008 &= 12 \times (34 + 5 + 6 + 789). \\
10009 &= 1 + 2^3 \times (4 + 5) \times (67 + 8 \times 9). \\
10010 &= (1 \times 2 + 3 \times 4) \times (5 + 6) \times (7 \times 8 + 9). \\
10011 &= (1 + 2) \times 3 \times 4^5 + 6 + 789. \\
10012 &= 1 + (23 \times (4 + 5) + 6) \times (7 \times 8 - 9). \\
10013 &= (12 + 3 + 4) \times (5 + 6 \times (78 + 9)). \\
10014 &= 123 + (4^5 + 67 + 8) \times 9. \\
10015 &= 1 + 2 \times (3 + (4 \times 5 + 67 \times 8) \times 9). \\
10016 &= -1 \times 2 + (3 + 4)^5 - 6789. \\
10017 &= 1 \times (2^3 + 45) \times (6 + 7 + 8) \times 9. \\
10018 &= 1 + (2^3 + 45) \times (6 + 7 + 8) \times 9. \\
10019 &= -1 + 2 + (3 + 4)^5 - 6789. \\
10020 &= 12 \times (34 + (5 + 6 + 78) \times 9). \\
10021 &= 1 + 2 + (3 + 4)^5 - 6789. \\
10022 &= (1 + 2^{(3+4)}) \times (5 + 6) \times 7 + 89. \\
10023 &= (1 + 2) \times (3 \times 4^5 + 6) + 789. \\
10024 &= 1^2 - 3 + (4^5 + 6 \times (7 + 8)) \times 9. \\
10025 &= (1234 + 5 + 6 + 7) \times 8 + 9. \\
10026 &= (12 + 3 + 4^5 + 67 + 8) \times 9. \\
10027 &= 12^3 + (4^5 + 6 \times (7 + 8)) \times 9. \\
10028 &= 1 \times 23 \times 4 \times (5 \times 6 + 7 + 8 \times 9). \\
10029 &= 1 + 23 \times 4 \times (5 \times 6 + 7 + 8 \times 9). \\
10030 &= 1^2 \times 34 \times 5 \times (6 \times 7 + 8 + 9). \\
10031 &= 1^2 + 34 \times 5 \times (6 \times 7 + 8 + 9). \\
10032 &= 1 \times 2 + 34 \times 5 \times (6 \times 7 + 8 + 9). \\
10033 &= (1 + 2 + 34 \times 5 + 6) \times 7 \times 8 + 9. \\
10034 &= 1 \times 2^3 + (4^5 + 6 \times (7 + 8)) \times 9. \\
10035 &= (1 + 2 \times 3 + 4^5 + 6 + 78) \times 9. \\
10036 &= -1 + 23 \times 4 \times (5 + (6 + 7) \times 8) + 9. \\
10037 &= (12 + 34) \times (5 \times 6 \times 7 + 8) + 9. \\
10038 &= 1 + 23 \times 4 \times (5 + (6 + 7) \times 8) + 9. \\
10039 &= 12^3 \times 4 + 56 \times 7 \times 8 - 9. \\
10040 &= 1 + (234 + 5) \times 6 \times 7 - 8 + 9. \\
10041 &= 12 + 3 + (4^5 + 6 \times (7 + 8)) \times 9. \\
10042 &= 12 + 34 \times 5 \times (6 \times 7 + 8 + 9). \\
10043 &= (1 \times 2 + 3^4) \times (56 + 7 \times 8 + 9). \\
10044 &= 12 \times 3 \times (45 \times 6 + 7) + 8 \times 9. \\
10045 &= 1 + (2^3 + 4^5 + 6 + 78) \times 9. \\
10046 &= 1 - 2 + 3 \times (4 + 5 \times (678 - 9)). \\
10047 &= 12 \times 34 + 567 \times (8 + 9). \\
10048 &= 1 + (2 \times 3 \times 4 + 567) \times (8 + 9). \\
10049 &= 1 \times 23 + (4^5 + 6 \times (7 + 8)) \times 9. \\
10050 &= 1 + 23 + (4^5 + 6 \times (7 + 8)) \times 9. \\
10051 &= (12 + 3 + 4) \times (5 \times (6 + 7) \times 8 + 9). \\
10052 &= 123 \times (4 + (5 + 6) \times 7) + 89. \\
10053 &= (12 + 3^4) \times (5 \times 6 + 78) + 9. \\
10054 &= 1^2 + (3 + 4^3 + 6 \times (7 + 8)) \times 9. \\
10055 &= 1 \times (234 + 5) \times 6 \times 7 + 8 + 9. \\
10056 &= 1 + (234 + 5) \times 6 \times 7 + 8 + 9. \\
10057 &= 12^3 \times 4 + 56 \times 7 \times 8 + 9. \\
10058 &= 1 + (2 \times (3 + 4 \times 5) + 67) \times 89. \\
10059 &= (1^2 + 3) \times 4^5 + 67 \times 89. \\
10060 &= 1 + 2^{(3+4+5)} + 67 \times 89. \\
10061 &= 12 \times 3 \times (45 \times 6 + 7) + 89. \\
10062 &= 1 \times 2 \times (3 + 4 \times 5 + 67 \times 8) \times 9. \\
10063 &= 1 + 2 \times (3 + 4 \times 5 + 67 \times 8) \times 9. \\
10064 &= (1 \times 2^3)^4 + 5 + 67 \times 89. \\
10065 &= ((1 + 2)^3 \times 45 + 6 \times 7) \times 8 + 9. \\
10066 &= 1 \times 2 \times (3 + 4) \times (5 + 6 \times 7 \times (8 + 9)). \\
10067 &= 1 + 2 \times (3 + 4) \times (5 + 6 \times 7 \times (8 + 9)). \\
10068 &= 12 \times (3^4 + 56 + 78 \times 9). \\
10069 &= 12 \times 3^4 \times (5 + 6) - 7 \times 89. \\
10070 &= 1 - 2 + 3 \times 4 \times 56 \times (7 + 8) - 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10001 &= 9876 + 5 \times (4 \times 3 \times 2 + 1). \\
10002 &= 9 \times (8 + 76) + 5 \times 43^2 + 1. \\
10003 &= (9 + 8 \times (7 + 6) \times (5 + 43)) \times 2 + 1. \\
10004 &= (9 + 8 - 7 + 6) \times 5^4 + 3 + 2 - 1. \\
10005 &= (9 + 8 \times 7 \times 6) \times (5 + 4 \times 3 \times 2 \times 1). \\
10006 &= 9 \times (8 + 76) + 5 \times (43^2 + 1). \\
10007 &= (9 + 8 - 7 + 6) \times 5^4 + 3 \times 2 + 1. \\
10008 &= 9 \times 8 \times (7 + 65 + 4 + 3 \times 21). \\
10009 &= 9876 + 5 + 4 \times 32 \times 1. \\
10010 &= 9876 + 5 + 4 \times 32 \times 1. \\
10011 &= (9 \times 8 + 7 + 6 \times 543) \times (2 + 1). \\
10012 &= 9 \times 8 + 7 + (6 + 5) \times 43 \times 21. \\
10013 &= 9876 + 5 + 4 \times (32 + 1). \\
10014 &= 9 + 87 \times (6 \times 5 + 4^3 + 21). \\
10015 &= 9876 + (5 + 4^3) \times 2 + 1. \\
10016 &= 9876 + 5 \times (4 + 3 + 21). \\
10017 &= 9 \times 8 + 765 \times (4 + 3^2 \times 1). \\
10018 &= 9 \times 8 + 765 \times (4 + 3^2) + 1. \\
10019 &= 9876 + (5 + 4 + 3)^2 - 1. \\
10020 &= 9876 + (5 + 43) \times (2 + 1). \\
10021 &= 9876 + (5 + 4 + 3)^2 + 1. \\
10022 &= 987 \times 6 + 5 + 4^3 \times 2 - 1. \\
10023 &= 987 \times 6 + 5 + 4^{(3+2+1)}. \\
10024 &= (98 \times 7 + 6 \times 5) \times (4 + 3) \times 2 \times 1. \\
10025 &= 9876 + 5 + (4 \times 3)^2 \times 1. \\
10026 &= 9876 + 5 + (4 \times 3)^2 + 1. \\
10027 &= 9 \times (87 \times 6 + 5 \times (4 + 3)) \times 2 + 1. \\
10028 &= 9876 + 5 + (4 + 3) \times 21. \\
10029 &= 9 + 87 + (6 + 5) \times 43 \times 21. \\
10030 &= (9 + 8 \times (7 + 6) + 5) \times (4^3 + 21). \\
10031 &= 98 + 7 \times (6 + 5) \times 43 \times (2 + 1). \\
10032 &= (9 + 8 \times 7 + 6 + 5) \times 4 \times (32 + 1). \\
10033 &= (9 \times 8 + 7) \times (6 + 5 \times 4 \times 3 \times 2 + 1). \\
10034 &= 9 \times 87 + 6 + 5 \times 43^2 \times 1. \\
10035 &= 9 \times 87 + 6 + 5 \times 43^2 + 1. \\
10036 &= (9 \times 87 \times 6 + 5 \times 4^3) \times 2 \times 1. \\
10037 &= (9 \times 87 \times 6 + 5 \times 4^3) \times 2 + 1. \\
10038 &= 98 + 7 + (6 + 5) \times 43 \times 21. \\
10039 &= 9 \times 87 + 6 + 5 \times (43^2 + 1). \\
10040 &= 9876 + 54 \times 3 + 2 \times 1. \\
10041 &= 9876 + 54 \times 3 + 2 + 1. \\
10042 &= 9 + (87 + 65) \times (4^3 + 2) + 1. \\
10043 &= 98 + 765 \times (4 + 3^2) \times 1. \\
10044 &= 9 \times 876 + 5 \times 432 \times 1. \\
10045 &= 9 \times 876 + 5 \times 432 + 1. \\
10046 &= 98 \times 7 + 65 \times (4 \times 3)^2 \times 1. \\
10047 &= 987 + 6^5 + 4 \times 321. \\
10048 &= (-9 - 8 + 7 + 6 \times 54) \times 32 \times 1. \\
10049 &= 9 \times 876 + 5 \times (432 + 1). \\
10050 &= (9 + 8 + 7 + 6) \times 5 \times (4 + 3 \times 21). \\
10051 &= ((9 + 8 + 76) \times 54 + 3) \times 2 + 1. \\
10052 &= (9 + 8) \times 7 + (6 + 5) \times 43 \times 21. \\
10053 &= (98 + 7 \times (6 + 5) \times 4^3) \times 2 + 1. \\
10054 &= 9 \times (8 + 7) \times 6 + 5 \times 43^2 - 1. \\
10055 &= 9 \times (8 + 7) \times 6 + 5 \times 43^2 \times 1. \\
10056 &= 9876 + 5 \times 4 \times 3^2 \times 1. \\
10057 &= 9876 + 5 \times 4 \times 3^2 + 1. \\
10058 &= 9 + 8765 + 4 \times 321. \\
10059 &= 9876 + 54 \times 3 + 21. \\
10060 &= 9 \times (8 + 7) \times 6 + 5 \times (43^2 + 1). \\
10061 &= 9876 + 5 \times (4 + 32 + 1). \\
10062 &= (9 + 87 + 6 \times 543) \times (2 + 1). \\
10063 &= 9 \times (8 \times 7 + 6 \times 5) \times (4 + 3^2) + 1. \\
10064 &= 9 \times (8 + 7 + 6 + 5) \times 43 + 2 \times 1. \\
10065 &= 9 \times (8 + 7 + 6 + 5) \times 43 + 2 + 1. \\
10066 &= ((9 + 8) \times 7 \times 6 + 5) \times (4 + 3) \times 2 \times 1. \\
10067 &= ((9 + 8) \times 7 \times 6 + 5) \times (4 \times 3 + 2) + 1. \\
10068 &= 9 \times (8 + 7) + (6 + 5) \times 43 \times 21. \\
10069 &= (9 + (87 + 6) \times 54 + 3) \times 2 + 1. \\
10070 &= 9876 + 5 \times 43 - 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10071 &= (1 \times 23 \times 45 + 6 + 78) \times 9. \\
10072 &= (12 \times 3 \times 4 + 5) \times 67 + 89. \\
10073 &= 1^2 \times 34 \times (5 \times 6 + 7) \times 8 + 9. \\
10074 &= 1^2 + 34 \times (5 \times 6 + 7) \times 8 + 9. \\
10075 &= 1 \times 2 + 34 \times (5 \times 6 + 7) \times 8 + 9. \\
10076 &= 1 + 2 + 34 \times (5 \times 6 + 7) \times 8 + 9. \\
10077 &= 12 \times (3 \times (45 \times 6 + 7) + 8) + 9. \\
10078 &= -1 + (23 \times 4 + 5) \times (6 + 7) \times 8 - 9. \\
10079 &= (1 + 2 \times (34 + 56) \times 7) \times 8 - 9. \\
10080 &= (1 \times 2 \times 34 + 5 + 67) \times 8 \times 9. \\
10081 &= 1 + 2 \times 3 \times 4 \times 5 \times (67 + 8 + 9). \\
10082 &= 1 + (2^3 + 45 \times (6 + 7)) \times (8 + 9). \\
10083 &= 12 + 3 \times (4 + 56) \times 7 \times 8 - 9. \\
10084 &= (12 + 3)^4 / 5 + 6 - 7 \times 8 + 9. \\
10085 &= 12 + 34 \times (5 \times 6 + 7) \times 8 + 9. \\
10086 &= (1 + 2) \times (3 \times (4^5 + 67) + 89). \\
10087 &= -1 \times 2 + 3 \times 4 \times 56 \times (7 + 8) + 9. \\
10088 &= 1 - 2 + 3 \times 4 \times 56 \times (7 + 8) + 9. \\
10089 &= 1 \times 2 \times (34 + 56) \times 7 \times 8 + 9. \\
10090 &= 1 + 2 \times (34 + 56) \times 7 \times 8 + 9. \\
10091 &= 123 + (45 + 67) \times 89. \\
10092 &= 1 + 2 + 3 \times 4 \times 56 \times (7 + 8) + 9. \\
10093 &= 12 \times 3 + (4 \times 5 \times 6 - 7) \times 89. \\
10094 &= -1 + 2 \times (3^4 - 5) \times 67 - 89. \\
10095 &= 123 + (4^5 + 6 + 78) \times 9. \\
10096 &= -1 + (23 \times 4 + 5) \times (6 + 7) \times 8 + 9. \\
10097 &= (1 + 234 + 5) \times 6 \times 7 + 8 + 9. \\
10098 &= (1 \times 23 + 4 + 567) \times (8 + 9). \\
10099 &= 1 + 2 \times (3 + (4 + 5) \times (6 + 7 \times 8)) \times 9. \\
10100 &= 1 \times (2 + 3) \times 4 \times (-5 + 6 + 7 \times 8 \times 9). \\
10101 &= 12 + 3 \times 4 \times 56 \times (7 + 8) + 9. \\
10102 &= 1 + (2 + 56 \times (3 \times 4)) \times (7 + 8) - 9. \\
10103 &= 12 \times 345 + 67 \times 89. \\
10104 &= (1^2 + 3 \times 4 \times 56) \times (7 + 8) + 9. \\
10105 &= (1 \times 2 + 3 \times (4 + 56) \times 7) \times 8 + 9. \\
10106 &= 1 + (2 + 3 \times (4 + 56) \times 7) \times 8 + 9. \\
10107 &= (1 + 23 + 4^5 + 67 + 8) \times 9. \\
10108 &= 1^2 + 3 \times (4 \times 56 \times (7 + 8) + 9). \\
10109 &= 1 \times 2 + 3 \times (4 \times 56 \times (7 + 8) + 9). \\
10110 &= 1 \times (234 + 5) \times 6 \times 7 + 8 \times 9. \\
10111 &= 1 + (234 + 5) \times 6 \times 7 + 8 \times 9. \\
10112 &= 1 \times 2 \times (34 + 5 \times 6) \times (7 + 8 \times 9). \\
10113 &= 1 \times 2 \times 3 \times (4 + 5 \times 6 \times 7 \times 8) + 9. \\
10114 &= 1 + 2 \times 3 \times (4 + 5 \times 6 \times 7 \times 8) + 9. \\
10115 &= (1 + 23 + 4 + 567) \times (8 + 9). \\
10116 &= 12 \times (3 + 45 + 6 + 789). \\
10117 &= (1 + (234 + 5) \times 6) \times 7 + 8 \times 9. \\
10118 &= 1 \times 2 + 3 \times 45 \times (67 + 8) - 9. \\
10119 &= (1 \times 2 + 3 \times 4 \times 56) \times (7 + 8) + 9. \\
10120 &= 1 + (2 + 3 \times 4 \times 56) \times (7 + 8) + 9. \\
10121 &= (12 + 3)^4 / 5 + 6 + 7 - 8 - 9. \\
10122 &= (1 + 2) \times (3 + 4) \times (5 + 6 \times 78 + 9). \\
10123 &= (1 + 2 \times 3)^4 + (5 + 6) \times 78 \times 9. \\
10124 &= 1 - 2 + 3 \times 45 \times (6 + 78 - 9). \\
10125 &= (12 + 3 + 4 + 56) \times (7 + 8) \times 9. \\
10126 &= 1 + (2 \times 3 + 4 + 5) \times (67 + 8) \times 9. \\
10127 &= 1 \times (234 + 5) \times 6 \times 7 + 89. \\
10128 &= 1 + (234 + 5) \times 6 \times 7 + 89. \\
10129 &= -1 \times 23 + (4^5 + (6 + 7) \times 8) \times 9. \\
10130 &= -1 + (2 + 3) \times (4 \times 5 + 6) \times 78 - 9. \\
10131 &= 123 \times 4 + 567 \times (8 + 9). \\
10132 &= 1 \times 2 \times 34 \times (5 \times 6 + 7 \times (8 + 9)). \\
10133 &= 12 \times (3 + 4 \times 5 \times 6 \times 7) + 8 + 9. \\
10134 &= 1^2 \times 3 \times 45 \times (67 + 8) + 9. \\
10135 &= 1^2 + 3 \times 45 \times (67 + 8) + 9. \\
10136 &= 1 \times 2 + 3 \times 45 \times (67 + 8) + 9. \\
10137 &= (1 + 23 \times 4) \times (5 \times 6 + 7 + 8 \times 9). \\
10138 &= 1^2 + 3 \times (4 + 5 \times (67 + 8) \times 9). \\
10139 &= 1 \times 2 + 3 \times (4 + 5 \times (67 + 8) \times 9). \\
10140 &= (1 \times 2^3 + 4) \times (56 + 789).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10071 &= 9 + (87 + 6 \times 5) \times 43 \times 2 \times 1. \\
10072 &= 9 + (87 + 6 \times 5) \times 43 \times 2 + 1. \\
10073 &= 9876 + 5 + 4^3 \times (2 + 1). \\
10074 &= 9 + (8 \times 7 + 6) \times 54 \times 3 + 21. \\
10075 &= (9 + 8 \times 7) \times (6 + 5 + (4 \times 3)^2 \times 1). \\
10076 &= 9876 + 5 \times 4 \times (3^2 + 1). \\
10077 &= -987 \times 6 + (5 \times 4)^3 \times 2 - 1. \\
10078 &= -987 \times 6 + (5 \times 4)^3 \times 2 \times 1. \\
10079 &= -987 \times 6 + (5 \times 4)^3 \times 2 + 1. \\
10080 &= (9 + 87 + 6 \times 54) \times (3 + 21). \\
10081 &= 9 \times (8 + 7 + 65) \times (4 \times 3 + 2) + 1. \\
10082 &= 9 \times (87 + 6) + 5 \times 43^2 \times 1. \\
10083 &= 9 \times (87 + 6) + 5 \times 43^2 + 1. \\
10084 &= -9 + 87 \times (6 \times 5 + 43 \times 2) + 1. \\
10085 &= (-9 + 8 + 7) \times (6 + 5 \times (4 + 3))^2 - 1. \\
10086 &= 9 + 8 \times 7 \times (6 + 54) \times 3 - 2 - 1. \\
10087 &= 9 \times (87 + 6) + 5 \times (43^2 + 1). \\
10088 &= 9876 + 5 \times 43 - 2 - 1. \\
10089 &= 9 + (8 + 76) \times 5 \times 4 \times 3 \times 2 \times 1. \\
10090 &= 9 + (8 + 76) \times 5 \times 4 \times 3 \times 2 + 1. \\
10091 &= 9 + 8 \times 7 \times (6 + 54) \times 3 + 2 \times 1. \\
10092 &= 9 + 8 \times 7 \times (6 + 54) \times 3 + 2 + 1. \\
10093 &= 9876 + 5 \times 43 + 2 \times 1. \\
10094 &= 9876 + 5 \times 43 + 2 + 1. \\
10095 &= 98 \times (7 + 6 \times 5 + 4^3 + 2) + 1. \\
10096 &= 98 \times (76 + (5 + 4) \times 3) + 2 \times 1. \\
10097 &= 9 + 8 + 7 \times (6 + 54) \times (3 + 21). \\
10098 &= (9 \times 8 + 76 + 5) \times (4^3 + 2 \times 1). \\
10099 &= (9 \times 8 + 76 + 5) \times (4^3 + 2) + 1. \\
10100 &= (98 \times 7 + 6 \times 54) \times (3^2 + 1). \\
10101 &= 9876 + 5 \times (43 + 2 \times 1). \\
10102 &= 9876 + 5 \times (43 + 2) + 1. \\
10103 &= (9 \times (87 + 6) + 5) \times 4 \times 3 - 2 + 1. \\
10104 &= (9 + 8 + 7) \times (6 \times 5 \times (4 + 3) \times 2 + 1). \\
10105 &= 9 + 8 \times (7 \times (6 + 54) \times 3 + 2 \times 1). \\
10106 &= 9876 + 5 \times (43 + 2 + 1). \\
10107 &= 987 + 6^5 + 4^3 \times 21. \\
10108 &= -98 + 7 \times 6 \times (5 + 4) \times 3^{(2+1)}. \\
10109 &= (9 + 8 \times 7 \times (6 + 54)) \times 3 + 2 \times 1. \\
10110 &= 9 + 8 \times 7 \times (6 + 54) \times 3 + 21. \\
10111 &= 98 \times 7 + 65 \times ((4 \times 3)^2 + 1). \\
10112 &= 9876 + 5 \times 43 + 21. \\
10113 &= 9 + (8 \times 7 \times 6 \times 5 + 4) \times 3 \times 2 \times 1. \\
10114 &= 9 + (8 \times 7 \times 6 \times 5 + 4) \times 3 \times 2 + 1. \\
10115 &= 98 \times (76 + (5 + 4) \times 3) + 21. \\
10116 &= (9 + 8 \times 7 \times (6 + 54) + 3) \times (2 + 1). \\
10117 &= -9 + 8 - 7 + (6 + 5 + 4)^3 \times (2 + 1). \\
10118 &= 9 + 8765 + 4^3 \times 21. \\
10119 &= 9 \times (8 + 7) \times 65 + 4^3 \times 21. \\
10120 &= (98 \times 7 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
10121 &= 9876 + 5 \times (4 + 3)^2 \times 1. \\
10122 &= 9876 + 5 \times (4 + 3)^2 + 1. \\
10123 &= (9 + (8 \times 7 \times 6 \times 5 + 4) \times 3) \times 2 + 1. \\
10124 &= -9876 + 5^4 \times 32 \times 1. \\
10125 &= 9 + 8 + 76 \times (5 + 4^3 \times 2 \times 1). \\
10126 &= 9 \times (8 \times 7 + 65 + 4) \times 3^2 + 1. \\
10127 &= 9 \times (8 + 7) \times (6 + 5 + 4^3) \times 2 \times 1. \\
10128 &= 9876 + (5 + 4 + 3) \times 21. \\
10129 &= 9 \times 8 \times 7 + 6^5 + 43^2 \times 1. \\
10130 &= 9 \times 87 \times 6 + 5432 \times 1. \\
10131 &= 9 \times 87 \times 6 + 5432 + 1. \\
10132 &= (9 + 8) \times (7 \times (65 + 4 \times (3 + 2))) + 1. \\
10133 &= 9876 + 5 + 4 \times 3 \times 21. \\
10134 &= (9 + (8 + 76) \times 5 \times 4) \times 3 \times 2 \times 1. \\
10135 &= 9 + 876 + 5 \times (43^2 + 1). \\
10136 &= -987 + 6 \times (5 + 43^2) - 1. \\
10137 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 - 3 \times 21. \\
10138 &= -987 + 6 \times (5 + 43^2) + 1. \\
10139 &= (9 + 8 \times 7) \times (6 + 5 \times 4) \times 3 \times 2 - 1. \\
10140 &= 9 + (8 + 7) \times 654 + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10141 &= 1^2 + 3 \times 4 \times (56 + 789). \\
10142 &= 1 \times 2 + 3 \times 4 \times (56 + 789). \\
10143 &= 1 + 2 + 3 \times 4 \times (56 + 789). \\
10144 &= 1 + 23 \times (4 + 5 \times 6 + 7 + 8) \times 9. \\
10145 &= (1^2 + 3 \times (4 + 56)) \times 7 \times 8 + 9. \\
10146 &= 12 + 3 \times 45 \times (67 + 8) + 9. \\
10147 &= (1 \times 2 \times 34 + 5) \times (67 + 8 \times 9). \\
10148 &= 1 \times (2 + 34 \times 5) \times (6 \times 7 + 8 + 9). \\
10149 &= 12 + 3 \times (4 + 5 \times (67 + 8) \times 9). \\
10150 &= 1 + (2 + 3) \times (4 \times 5 + 6) \times 78 + 9. \\
10151 &= (-1 + 23) \times 456 + 7 \times (8 + 9). \\
10152 &= (1 + 234 + 5) \times 6 \times 7 + 8 \times 9. \\
10153 &= 1 + (2 + 34) \times (5 \times 6 \times 7 + 8 \times 9). \\
10154 &= 1 \times 2 + 3 \times (45 \times (67 + 8) + 9). \\
10155 &= 1 + 2 + 3 \times (45 \times (67 + 8) + 9). \\
10156 &= 1^2 + 3 + (4^3 + (6 + 7) \times 8) \times 9. \\
10157 &= 1 \times 2 + 3 + (4^5 + (6 + 7) \times 8) \times 9. \\
10158 &= 1 \times 2 \times (345 + 6 \times 789). \\
10159 &= 1 + 2 \times (345 + 6 \times 789). \\
10160 &= (123 + 4) \times (56 + 7 + 8 + 9). \\
10161 &= (1 \times 23 + 4) \times (5 + 6 \times 7) \times 8 + 9. \\
10162 &= 1 + (23 + 4) \times (5 + 6 \times 7) \times 8 + 9. \\
10163 &= 1 - 2 + 3 \times (4 + (5 + 6 \times 7) \times 8 \times 9). \\
10164 &= 12 \times (3 + 4) \times (56 + 7 \times 8 + 9). \\
10165 &= 1^2 + 3 \times (4 + (5 + 6 \times 7) \times 8 \times 9). \\
10166 &= (1^{23} + 45) \times (6 + 7) \times (8 + 9). \\
10167 &= 12 + 3 + (4^5 + (6 + 7) \times 8) \times 9. \\
10168 &= 1 \times 2 + 34 \times (5 \times 6 \times 7 + 89). \\
10169 &= (1 + 234 + 5) \times 6 \times 7 + 89. \\
10170 &= ((1 + 23) \times 45 + 6 \times 7 + 8) \times 9. \\
10171 &= -1 \times 2 + 3 \times (4 + 5 \times 678) - 9. \\
10172 &= 1 \times 2 \times (3^4 \times (56 + 7) - 8 - 9). \\
10173 &= 12 \times (3 + 4 + 56 \times (7 + 8)) + 9. \\
10174 &= -1 + (2 + 3 \times 4 + 5) \times 67 \times 8 - 9. \\
10175 &= (1 + 2 \times 3 \times 4) \times (5 \times 67 + 8 \times 9). \\
10176 &= (12 + 3 \times 4) \times (5 \times 67 + 89). \\
10177 &= (1234 + 5 \times 6 + 7) \times 8 + 9. \\
10178 &= 12 + 34 \times (5 \times 6 \times 7 + 89). \\
10179 &= (1 + 2 + 3 + 4 + 5) \times 678 + 9. \\
10180 &= 1 + (2 \times 3 + 4 + 5) \times 678 + 9. \\
10181 &= 1 \times 2 + (3 + 4^5 + (6 + 7) \times 8) \times 9. \\
10182 &= 1 + 2 + (3 + 4^5 + (6 + 7) \times 8) \times 9. \\
10183 &= (1 \times 2^3 \times 4 + 567) \times (8 + 9). \\
10184 &= 1 + (2^3 \times 4 + 567) \times (8 + 9). \\
10185 &= 12 \times (34 \times 5 + 678) + 9. \\
10186 &= 1 + (2 + 3) \times ((4 \times 5 + 6) \times 78 + 9). \\
10187 &= 1 - 2 + 3 \times 4 \times (56 \times (7 + 8) + 9). \\
10188 &= (1 + 23 + 4^3 + 6 + 78) \times 9. \\
10189 &= 1 + (2^3 + 4) \times (56 \times (7 + 8) + 9). \\
10190 &= 1 \times 2 + 3 \times 4 \times (56 \times (7 + 8) + 9). \\
10191 &= 1^2 \times 3 \times (4 + 5 \times 678) + 9. \\
10192 &= 1^2 + 3 \times (4 + 5 \times 678) + 9. \\
10193 &= 1 \times 2 + 3 \times (4 + 5 \times 678) + 9. \\
10194 &= 1 + 2 + 3 \times (4 + 5 \times 678) + 9. \\
10195 &= 1 + 2 \times 3 \times (4^5 + (67 + 8) \times 9). \\
10196 &= 1 - 2 - 3 + 4 \times 5 \times (6 + 7 \times 8 \times 9). \\
10197 &= (1 \times 2 + 3 + 4^5 + (6 + 7) \times 8) \times 9. \\
10198 &= 1 \times 2^{(3+4+5)} + 678 \times 9. \\
10199 &= 1 + 2^{(3+4+5)} + 678 \times 9. \\
10200 &= 12 \times (3 + 4 \times 56 + 7 \times 89). \\
10201 &= 1 + 2 \times 34 \times 5 \times (6 + 7 + 8 + 9). \\
10202 &= 1 + (2 + 3 \times (4 + 56)) \times 7 \times 8 + 9. \\
10203 &= 12 + 3 \times (4 + 5 \times 678) + 9. \\
10204 &= 1^2 + 3 + 4 \times 5 \times (6 + 7 \times 8 \times 9). \\
10205 &= 12 \times (3 + 4 \times 5 \times 6 \times 7) + 89. \\
10206 &= 1^2 \times 3^4 \times (5 \times 6 + 7 + 89). \\
10207 &= 1^2 + 3^4 \times (5 \times 6 + 7 + 89). \\
10208 &= 1 \times 2 + 3^4 \times (5 \times 6 + 7 + 89). \\
10209 &= 1^2 \times 3 \times (4 + 5 \times 678 + 9). \\
10210 &= 1^2 + 3 \times (4 + 5 \times 678 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10141 &= (9 + 8 \times 7) \times 6 \times (5 \times 4 + 3 \times 2) + 1. \\
10142 &= 9 \times 87 + 65 \times (4 \times 3)^2 - 1. \\
10143 &= 9 \times 87 + 65 \times (4 \times 3)^2 \times 1. \\
10144 &= 9 \times 87 + 65 \times (4 \times 3)^2 + 1. \\
10145 &= 9 + 8 \times (7 \times 6 + (5 \times (4 + 3))^2 \times 1). \\
10146 &= 9876 + 54 \times (3 + 2) \times 1. \\
10147 &= 9876 + 54 \times (3 + 2) + 1. \\
10148 &= (9 + 8 \times (7 + 6) + 5) \times 43 \times 2 \times 1. \\
10149 &= (9 + 8 \times (7 + 6) + 5) \times 43 \times 2 + 1. \\
10150 &= ((9 + 8 \times 7) \times 6 + 5^4) \times (3^2 + 1). \\
10151 &= (9 \times 8 + 7 \times 6 \times 5) \times 4 \times 3^2 - 1. \\
10152 &= 9 \times (8 + 7 + 6 + 543) \times 2 \times 1. \\
10153 &= 9 \times 8 \times (76 + 5) + 4321. \\
10154 &= 9 \times 8 \times (7 \times (6 + 5) + 4^3) + 2 \times 1. \\
10155 &= 9 \times 8 \times (7 \times (6 + 5) + 4^3) + 2 + 1. \\
10156 &= -9 + 8 + 7 \times (-6 + (5 + 4)^3 \times 2 - 1). \\
10157 &= (9 + 8 \times 7 \times 6 \times 5 + 4) \times 3 \times 2 - 1. \\
10158 &= (9 + 8 \times 7 \times 6 \times 5 + 4) \times 3 \times 2 \times 1. \\
10159 &= (9 + 8 \times 7 \times 6 \times 5 + 4) \times 3 \times 2 + 1. \\
10160 &= (9 - 87 \times 6 + 5) \times (4 - 3 - 21). \\
10161 &= 9 + 8 \times (76 \times 5 + 43) \times (2 + 1). \\
10162 &= 9 + 8 \times (7 + 6 + (5^4 + 3) \times 2) + 1. \\
10163 &= 9 + 8 + (7 + (6 + 5 + 4)^3) \times (2 + 1). \\
10164 &= 9876 + (5 + 4) \times 32 \times 1. \\
10165 &= 9876 + (5 + 4) \times 32 + 1. \\
10166 &= 9876 + (5 + 4 \times 3)^2 + 1. \\
10167 &= (9 + 8) \times (7 + 6) \times (5 \times 4 + 3) \times 2 + 1. \\
10168 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 - 32 \times 1. \\
10169 &= 9 + 8 \times (7 + 6 \times 5 \times 4) \times (3^2 + 1). \\
10170 &= 9 \times (87 + 6 + 5 \times 4) \times (3^2 + 1). \\
10171 &= (987 + 6 \times 5) \times (4 + 3 \times 2) + 1. \\
10172 &= -9 + 8 \times 7 + (6 + 5 + 4)^3 \times (2 + 1). \\
10173 &= 9876 + (5 + 4) \times (32 + 1). \\
10174 &= 9 \times (8 + 7 + 6) \times 54 - 32 \times 1. \\
10175 &= 9876 + 5 \times 4^3 - 21. \\
10176 &= (9 + 87) \times (6 + 5 \times 4 \times (3 + 2) \times 1). \\
10177 &= 9 + (8 \times 7 + 6) \times (54 \times 3 + 2 \times 1). \\
10178 &= (9 \times 87 + 65) \times 4 \times 3 + 2 \times 1. \\
10179 &= (9 \times 87 + 65) \times 4 \times 3 + 2 + 1. \\
10180 &= 9 \times 8 + 76 \times (5 + 4 \times 32) \times 1. \\
10181 &= 9 \times 8 + 76 \times (5 + 4 \times 32) + 1. \\
10182 &= 9 \times 8 \times (7 + 6) + 5 \times 43^2 + 1. \\
10183 &= (9 + 8) \times (7 \times 65 + (4 \times 3)^2 \times 1). \\
10184 &= (9 + 8) \times (7 \times 65 + (4 \times 3)^2) + 1. \\
10185 &= (98 + 76 \times 5 + 4 + 3) \times 21. \\
10186 &= (98 + 7) \times (6 + 5 + 43 \times 2) + 1. \\
10187 &= 9 \times 876 + (5 + 43)^2 - 1. \\
10188 &= 9 \times 876 + (5 + 43)^2 \times 1. \\
10189 &= 9 \times 876 + (5 + 43)^2 + 1. \\
10190 &= 9 + 8 \times 7 + (6 + 5 + 4)^3 \times (2 + 1). \\
10191 &= (9 \times 8 + 7) \times (65 + 43 + 21). \\
10192 &= 98 \times (7 + 6 + 5 + 43 \times 2 \times 1). \\
10193 &= 98 \times (7 + 6 + 5 + 43 \times 2) + 1. \\
10194 &= (9 \times 8 + 7) \times (65 + 43) + 2 + 1. \\
10195 &= 9876 + 5 \times 4^3 - 2 + 1. \\
10196 &= 9876 + 5 \times (43 + 21). \\
10197 &= (9 \times 87 + 65) \times 4 \times 3 + 21. \\
10198 &= 9876 + 5 \times 4^3 + 2 \times 1. \\
10199 &= 9876 + 5 \times 4^3 + 2 + 1. \\
10200 &= 9876 + 54 \times 3 \times 2 \times 1. \\
10201 &= 9876 + 54 \times 3 \times 2 + 1. \\
10202 &= (9 + 8 + 7 + 65 + 4 \times 3)^2 + 1. \\
10203 &= 9 \times (8 + 7 + 6) \times 54 - 3 \times (2 - 1). \\
10204 &= 9 \times 8 + 7 + (6 + 5 + 4)^3 \times (2 + 1). \\
10205 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 3 + 2 \times 1. \\
10206 &= 9876 + 5 + 4 + 321. \\
10207 &= 98 + 76 \times (5 + 4 \times 32) + 1. \\
10208 &= 9 \times 87 + 65 \times ((4 \times 3)^2 + 1). \\
10209 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 3^2 \times 1. \\
10210 &= 9 + (8 + 76 + 5 + 4 \times 3)^2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10211 &= 1 \times 2 + 3 \times (4 + 5 \times 678 + 9). \\
10212 &= 1 + 2 + 3 \times (4 + 5 \times 678 + 9). \\
10213 &= 1 - 23 \times (4 + 56 \times (-7 + 8 - 9)). \\
10214 &= (1 + (2 - 3 + 4)^5 \times 6) \times 7 - 8 + 9. \\
10215 &= (12 \times 3 + 4^5 + 67 + 8) \times 9. \\
10216 &= (1^2 + 3) \times (4 + 5 \times (6 + 7 \times 8 \times 9)). \\
10217 &= 1^2 \times (34 + 567) \times (8 + 9). \\
10218 &= 12 + 3^4 \times (5 \times 6 + 7 + 89). \\
10219 &= 1 + (2 \times 3)^4 \times 5 + 6 \times 7 \times 89. \\
10220 &= 1 + 2 + (34 + 567) \times (8 + 9). \\
10221 &= 12 + 3 \times (4 + 5 \times 678 + 9). \\
10222 &= 1 + 2 \times 3 \times (4^5 + 678) + 9. \\
10223 &= 1 \times 2 \times 3^4 \times (56 + 7) + 8 + 9. \\
10224 &= 12 \times 3 \times 45 \times 6 + 7 \times 8 \times 9. \\
10225 &= (1 + 2 \times 3 \times 4) \times (56 \times 7 + 8 + 9). \\
10226 &= 1 - 2 \times (3 - 4^5 \times (6 + 7 - 8)) - 9. \\
10227 &= ((1 + 2 \times 3 \times 4) \times 5 + 6) \times 78 + 9. \\
10228 &= -1 \times 23 + (4 + 5) \times 67 \times (8 + 9). \\
10229 &= 12 + (34 + 567) \times (8 + 9). \\
10230 &= 1 \times 2 \times (3 \times (4^5 + 678) + 9). \\
10231 &= 1 + 2 \times (3 \times (4^5 + 678) + 9). \\
10232 &= 1 + 2 \times (3^4 \times (56 + 7) + 8) + 9. \\
10233 &= 12 \times 3 \times 4 \times (56 + 7 + 8) + 9. \\
10234 &= (1^2 + 34 + 567) \times (8 + 9). \\
10235 &= (1^2 \times 3 + 45 + 67) \times 89. \\
10236 &= 12 \times (34 + 5 \times 6 + 789). \\
10237 &= 1 \times 2 + (3 + 45 + 67) \times 89. \\
10238 &= 1 + 2 + (3 + 45 + 67) \times 89. \\
10239 &= (1 + (2 + 3)^4 + 56) \times (7 + 8) + 9. \\
10240 &= 1 \times 2^{(3+4)} \times (56 + 7 + 8 + 9). \\
10241 &= 1 + 2^{(3+4)} \times (56 + 7 + 8 + 9). \\
10242 &= 12 \times 345 + 678 \times 9. \\
10243 &= 1 \times 2^{(3 \times 4)} + (5 + 678) \times 9. \\
10244 &= 1 + 2^{(3 \times 4)} + (5 + 678) \times 9. \\
10245 &= (12 + 3) \times (4 + 56 + 7 \times 89). \\
10246 &= 1 - 2 \times 3 + (4 + 5) \times 67 \times (8 + 9). \\
10247 &= 12 + (3 + 45 + 67) \times 89. \\
10248 &= 1 \times 2 \times (3 + 4) \times (5 \times 6 + 78 \times 9). \\
10249 &= 1 + 2 \times (3 + 4) \times (5 \times 6 + 78 \times 9). \\
10250 &= 1 + 2^{(3+4)} \times (5 + 67 + 8) + 9. \\
10251 &= (1 + 23 \times 4 \times 5 + 678) \times 9. \\
10252 &= 1^{23} + (4 + 5) \times 67 \times (8 + 9). \\
10253 &= 1 - 2 + 3 + (4 + 5) \times 67 \times (8 + 9). \\
10254 &= (1 + 2 + 3 \times 4) \times (5 + 678) + 9. \\
10255 &= 1^2 + 3 + (4 + 5) \times 67 \times (8 + 9). \\
10256 &= 1 \times 2 + 3 + (4 + 5) \times 67 \times (8 + 9). \\
10257 &= (1234 + 5 + 6 \times 7) \times 8 + 9. \\
10258 &= 1 + 2 \times 3 + (4 + 5) \times 67 \times (8 + 9). \\
10259 &= 1 \times 2^3 + (4 + 5) \times 67 \times (8 + 9). \\
10260 &= (12 + 34 + 5 \times 6) \times (7 + 8) \times 9. \\
10261 &= 1^2 + 3 \times 4 \times (5 + 6 \times (7 + 8)) \times 9. \\
10262 &= 1 \times 2 + 3 \times 4 \times (5 + 6 \times (7 + 8)) \times 9. \\
10263 &= 1 + 2 + 3 \times (4 + (5 + 6 \times 7) \times 8) \times 9. \\
10264 &= 1 \times (2 + 3)^4 + 567 \times (8 + 9). \\
10265 &= 1 + (2 + 3)^4 + 567 \times (8 + 9). \\
10266 &= 1 \times 2 \times 3 \times (4^5 + 678 + 9). \\
10267 &= 1 + 2 \times 3 \times (4^5 + 678 + 9). \\
10268 &= (1 + 2 + 34 + 567) \times (8 + 9). \\
10269 &= 123 \times 45 + 6 \times 789. \\
10270 &= 1 \times (2 + 3) \times (4 \times 5 + 6) \times (7 + 8 \times 9). \\
10271 &= 1 + (2 + 3) \times (4 \times 5 + 6) \times (7 + 8 \times 9). \\
10272 &= (1 + 23) \times (4 + 5 \times 67 + 89). \\
10273 &= -1 + 23 + (4 + 5) \times 67 \times (8 + 9). \\
10274 &= 1 \times 23 + (4 + 5) \times 67 \times (8 + 9). \\
10275 &= 1 + 23 + (4 + 5) \times 67 \times (8 + 9). \\
10276 &= 1 + (2 + 3 \times 45) \times (6 + 78 - 9). \\
10277 &= -1 + 2 \times 3^4 \times (56 + 7) + 8 \times 9. \\
10278 &= ((12 + 3 + 4) \times 56 + 78) \times 9. \\
10279 &= 1 + 2 \times 3^4 \times (56 + 7) + 8 \times 9. \\
10280 &= 1 \times 2 + (3 \times (4 + 5) \times 6 \times 7 + 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10211 &= 9876 + 5 \times (4 + 3 \times 21). \\
10212 &= 9 \times (8 + 7 + 6) \times 54 + 3 \times 2 \times 1. \\
10213 &= 9 \times (8 + 7 + 6) \times 54 + 3 \times 2 + 1. \\
10214 &= (9 \times 8 + 76) \times (5 + 4^3) + 2 \times 1. \\
10215 &= 9 + (8 + 7 + 6) \times 54 \times 3^2 \times 1. \\
10216 &= 9 + (8 + 7 + 6) \times 54 \times 3^2 + 1. \\
10217 &= 9876 + 5 \times 4 + 321. \\
10218 &= 9 \times 8 + (7 + (6 + 5 + 4)^3) \times (2 + 1). \\
10219 &= 9 + 8 + (7 + 6 \times 5 + 4^3)^2 + 1. \\
10220 &= (9 \times 8 + 7 - 6) \times 5 \times (4 + 3 + 21). \\
10221 &= 9 + 87 + (6 + 5 + 4)^3 \times (2 + 1). \\
10222 &= (-9 + 8 \times 7 \times (65 - 4)) \times 3 + 2 - 1. \\
10223 &= 9 + 8 + 7 \times 6 \times (5 + 4) \times 3^{(2+1)}. \\
10224 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 3 + 21. \\
10225 &= 9 + 8 \times 765 + 4^{(3 \times 2)} \times 1. \\
10226 &= 9 + 8 \times 765 + 4^{(3 \times 2)} + 1. \\
10227 &= (98 + 7 \times (6 + 5) \times 43) \times (2 + 1). \\
10228 &= -98 \times 7 + (6 \times 5 + 4) \times 321. \\
10229 &= (-9 + 87 \times 6) \times 5 \times 4 - 32 + 1. \\
10230 &= 9 \times (8 + 7 + 6) \times 54 + 3 + 21. \\
10231 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 32 - 1. \\
10232 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 32 \times 1. \\
10233 &= 9876 + (5 + 4 \times 3) \times 21. \\
10234 &= (9 \times 8 + 7 \times 6 + 5) \times 43 \times 2 \times 1. \\
10235 &= (9 \times 8 + 7 \times 6 + 5) \times 43 \times 2 + 1. \\
10236 &= 9 \times 8 + 7 \times (6 + 5) \times 4 \times (32 + 1). \\
10237 &= 9 \times (8 + 7 + 6) \times 54 + 32 - 1. \\
10238 &= 987 + 6 + 5 \times 43^2 \times 1. \\
10239 &= 987 + 6 + 5 \times 43^2 + 1. \\
10240 &= (9 \times 8 + 7 + 6 - 5) \times 4 \times 32 \times 1. \\
10241 &= 98 \times 7 + 65 \times (4 + 3) \times 21. \\
10242 &= 9 \times (8 \times 76 + (5 \times 4 + 3)^2 + 1). \\
10243 &= 987 + 6 + 5 \times (43^2 + 1). \\
10244 &= (9 + 8) \times 7 + (6 + 5 + 4)^3 \times (2 + 1). \\
10245 &= ((9 \times 8 + 7) \times 65 - 4 \times 3) \times 2 - 1. \\
10246 &= (9 - 8 \times 7) \times (-6 - 5 \times 43 + 2 + 1). \\
10247 &= -9 + 8 + 7 \times (6 + (5 + 4)^3 \times 2 \times 1). \\
10248 &= 987 \times 6 + 5 + 4321. \\
10249 &= 9 + (8 + 7 + 65) \times 4 \times 32 \times 1. \\
10250 &= 9 + (8 + 7 + 65) \times 4 \times 32 + 1. \\
10251 &= 9876 + 54 + 321. \\
10252 &= (9 + 8) \times (7 + 6 + 54) \times 3^2 + 1. \\
10253 &= (-9 + 87 \times 6) \times 5 \times 4 - 3 \times 2 - 1. \\
10254 &= 9876 + 54 \times (3 \times 2 + 1). \\
10255 &= (9 + 8 \times 7 \times (6 + 5 \times 4)) \times (3 \times 2 + 1). \\
10256 &= 9 \times 8 + 76 \times (5 + 4 \times 32 + 1). \\
10257 &= 9 + 8 \times (7 + 6 + 5 + 43) \times 21. \\
10258 &= (9 + (8 + 7 + 65) \times 4^3) \times 2 \times 1. \\
10259 &= (9 + (8 + 7 + 65) \times 4^3) \times 2 + 1. \\
10260 &= (9 \times 8 + 7 \times 6) \times (5 + 4^3 + 21). \\
10261 &= 9 \times (87 \times 6 + 5 + 43) \times 2 + 1. \\
10262 &= 9 \times (8 \times 7 + 6 \times 54) \times 3 + 2 \times 1. \\
10263 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 3 \times 21. \\
10264 &= -987 + 6 \times 5^4 \times 3 + 2 - 1. \\
10265 &= 9 + 8 \times (7 + 6 + 5^4 + 3) \times 2 \times 1. \\
10266 &= (98 + 76) \times (54 + 3 + 2 \times 1). \\
10267 &= (98 + 76) \times (54 + 3 + 2) + 1. \\
10268 &= (9 + 8) \times ((7 + 6 + 54) \times 3^2 + 1). \\
10269 &= 9 \times (8 + 7 + 6) \times 54 + 3 \times 21. \\
10270 &= (9 + 8 \times 7) \times (6 \times 5 + 4 \times 32 \times 1). \\
10271 &= (9 + 8 \times 7) \times (6 \times 5 + 4 \times 32) + 1. \\
10272 &= (9 + 87 + 6 + 5) \times 4 \times (3 + 21). \\
10273 &= 9 + 8 \times (76 \times 5 + 43 \times 21). \\
10274 &= 9 \times 8 + (7 + 6 \times 5 + 4^3)^2 + 1. \\
10275 &= (9 + 8 \times (7 + 6 + 5^4 + 3)) \times 2 + 1. \\
10276 &= -98 + 7 + 6 \times 54 \times 32 - 1. \\
10277 &= -98 + 7 + 6 \times 54 \times 32 \times 1. \\
10278 &= 9 \times 8 \times 7 + 6 \times 543 \times (2 + 1). \\
10279 &= (9 + (8 + 7) \times 6 \times (54 + 3)) \times 2 + 1. \\
10280 &= 9 \times (8 + 7 \times 6 \times (5 + 4) \times 3) + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10281 &= 1 \times 2 \times 3 \times (4 + 5 \times 6 \times 7) \times 8 + 9. \\
10282 &= 1 + 2 \times 3 \times (4 + 5 \times 6 \times 7) \times 8 + 9. \\
10283 &= (12^3 + 4 - 5) \times 6 - 7 - 8 \times 9. \\
10284 &= 12 \times (34 \times 5 + 678 + 9). \\
10285 &= (1 \times 23 \times (4 \times 5 + 6) + 7) \times (8 + 9). \\
10286 &= (1 + 2 \times 34 + 5) \times (67 + 8 \times 9). \\
10287 &= 12^3 \times 4 + 5 \times (67 + 8) \times 9. \\
10288 &= 1^2 + 3 \times (45 + 6 \times 7 \times 8) \times 9. \\
10289 &= 1 \times 2 + 3 \times (45 + 6 \times 7 \times 8) \times 9. \\
10290 &= 1 + 2 + 3 \times (45 + 6 \times 7 \times 8) \times 9. \\
10291 &= 1 + 2 \times (3 \times (4 + 5 \times 6 \times 7) \times 8 + 9). \\
10292 &= (-1 - 2 + 34) \times (5 + 6 \times 7 \times 8 - 9). \\
10293 &= (1 \times 2 \times 34 + 5) \times (6 + (7 + 8) \times 9). \\
10294 &= 1 + (2 \times 34 + 5) \times (6 + (7 + 8) \times 9). \\
10295 &= 1 \times 2 \times 3^4 \times (56 + 7) + 89. \\
10296 &= (12 \times 3 + 4^5 + 6 + 78) \times 9. \\
10297 &= 1 + 2 \times 3 \times 4 \times (5 \times (6 + 78) + 9). \\
10298 &= 1 \times 2 + (3^4 - 5 + 67) \times 8 \times 9. \\
10299 &= 12 + 3 \times (45 + 6 \times 7 \times 8) \times 9. \\
10300 &= 1 \times (2 + 3) \times 4 \times (5 + 6 + 7 \times 8 \times 9). \\
10301 &= 1 + (2 + 3) \times 4 \times (5 + 6 + 7 \times 8 \times 9). \\
10302 &= (1 + 2) \times (3 \times 45 + 67) \times (8 + 9). \\
10303 &= 1^2 + (3 + (4 + 5) \times 67) \times (8 + 9). \\
10304 &= (1 + 2^3)^4 + 5 + 6 \times 7 \times 89. \\
10305 &= 1^2 \times 3 \times 4 \times (5 + 6) \times 78 + 9. \\
10306 &= 1 + 2 \times (3 \times 4 \times 5 + 6) \times 78 + 9. \\
10307 &= 1 \times 2 + 3 \times 4 \times (5 + 6) \times 78 + 9. \\
10308 &= 1 + 2 + 3 \times 4 \times (5 + 6) \times 78 + 9. \\
10309 &= (12^3 - 4 + 5) \times 6 - 7 \times 8 - 9. \\
10310 &= (1 \times 2 - 3 - 4^5 - 6) \times (7 - 8 - 9). \\
10311 &= 12^3 \times 4 + 5 \times 678 + 9. \\
10312 &= -1 + 23 \times 4 \times (56 + 7 \times 8) + 9. \\
10313 &= 1 \times 23 \times 4 \times (56 + 7 \times 8) + 9. \\
10314 &= (12 + 3) \times (4 + 5 + 678) + 9. \\
10315 &= 1 + 2 \times ((3 \times 4 \times 5 + 6) \times 78 + 9). \\
10316 &= 1 - 2 + 3 \times (4 + 5 \times (678 + 9)). \\
10317 &= 12 + 3 \times 4 \times (5 + 6) \times 78 + 9. \\
10318 &= 1 \times 2 \times (3^4 \times 56 + 7 \times 89). \\
10319 &= 1 + 2 \times (3^4 \times 56 + 7 \times 89). \\
10320 &= 12 \times (3 + 4 \times 5 \times 6 \times 7 + 8 + 9). \\
10321 &= (1 + 2 \times (3^4 + 5 + 6) \times 7) \times 8 + 9. \\
10322 &= 1 \times 2 \times ((3^4 + 5 + 6) \times 7 \times 8 + 9). \\
10323 &= 123 + 4 \times 5 \times (6 + 7 \times 8 \times 9). \\
10324 &= (1^2 + 3 + 45 + 67) \times 89. \\
10325 &= (1^2 + 34) \times 5 \times (6 \times 7 + 8 + 9). \\
10326 &= 1 + 2 + 3 \times (4 \times (5 + 6) \times 78 + 9). \\
10327 &= 1 + 2 \times 3 \times ((4 + 5 \times 6 \times 7) \times 8 + 9). \\
10328 &= 1 + 23 \times (456 + 7 \times (8 - 9)). \\
10329 &= 12 + 3 \times (4 + 5 \times (678 + 9)). \\
10330 &= 1 \times 2 \times (3 + (45 + 6 + 7) \times 89). \\
10331 &= 1 + 2 \times (3 + (45 + 6 + 7) \times 89). \\
10332 &= 123 \times (4 + 56 + 7 + 8 + 9). \\
10333 &= 12 \times (3 + 4 \times 5 \times 6) \times 7 - 8 + 9. \\
10334 &= -1 \times 2 + 34 \times (5 \times (67 - 8) + 9). \\
10335 &= (1^2 + 3 + 4 + 5) \times (6 + 789). \\
10336 &= 1 \times 2 \times 34 \times (56 + 7 + 89). \\
10337 &= 1 + 2 \times 34 \times (56 + 7 + 89). \\
10338 &= 1 \times 2 \times (345 + 67 \times 8 \times 9). \\
10339 &= 1 + 2 \times (345 + 67 \times 8 \times 9). \\
10340 &= (12^3 + 4 + 5) \times 6 + 7 - 89. \\
10341 &= 123 \times (4 + 5 + 67 + 8) + 9. \\
10342 &= 1 + (2 + (3 \times 4 + 5) \times 67 + 8) \times 9. \\
10343 &= 12 \times 3 \times 45 \times 6 + 7 \times 89. \\
10344 &= 12 \times (3 + 4 + (5 + 6 \times (7 + 8))) \times 9. \\
10345 &= 1 + 23 \times (456 - 7) + 8 + 9. \\
10346 &= (1 + 2) \times (3456 - 7) + 8 - 9. \\
10347 &= 12^3 \times 4 + 5 \times (678 + 9). \\
10348 &= -1 \times 2 + 345 \times (6 + 7 + 8 + 9). \\
10349 &= 12 \times (3 + 4 \times 5 \times 6) \times 7 + 8 + 9. \\
10350 &= 1^2 \times 345 \times (6 + 7 + 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10281 &= 9 \times (8 \times 7 + 6 \times 54) \times 3 + 21. \\
10282 &= 98 + 76 \times (5 + 4 \times 32 + 1). \\
10283 &= 98 + 7 \times (6 + (5 + 4^3) \times 21). \\
10284 &= ((9 \times 8 + 7) \times 65 + 4 + 3) \times 2 \times 1. \\
10285 &= ((9 \times 8 + 7) \times 65 + 4 + 3) \times 2 + 1. \\
10286 &= (9 + 8) \times (76 + (5 \times 4 + 3)^2) + 1. \\
10287 &= 9 \times 87 + 6^5 + (4 \times 3)^{(2+1)}. \\
10288 &= (9 + (8 + 7 + 6) \times 54) \times 3^2 + 1. \\
10289 &= 9 + 8 \times ((7 \times 6 \times 5 + 4) \times 3 \times 2 + 1). \\
10290 &= (98 + 76 \times 5 + 4 \times 3) \times 21. \\
10291 &= (9 + 8 \times (7 \times 6 \times 5 + 4) \times 3) \times 2 + 1. \\
10292 &= 98 \times 7 \times (6 + 5 + 4) + 3 - 2 + 1. \\
10293 &= (9 \times 8 + 7 - 6) \times (54 \times 3 - 21). \\
10294 &= (987 + 65 \times 4^3) \times 2 \times 1. \\
10295 &= (987 + 65 \times 4^3) \times 2 + 1. \\
10296 &= (98 + 7 + 6 \times 54) \times (3 + 21). \\
10297 &= 987 \times 6 + 5^4 \times (3 \times 2 + 1). \\
10298 &= 98 \times 7 \times (6 + 5 + 4) + 3^2 - 1. \\
10299 &= 98 \times 7 \times (6 + 5 + 4) + 3^2 \times 1. \\
10300 &= 98 \times 7 \times (6 + 5 + 4) + 3^2 + 1. \\
10301 &= 9876 + 5 \times (4^3 + 21). \\
10302 &= (9 + 8) \times (7 \times 6 + 543 + 21). \\
10303 &= 9876 - 5 + 432 \times 1. \\
10304 &= (9 + 87 + 65) \times (43 + 21). \\
10305 &= 9 \times (8 \times 7 + 65 + 4^3 + 2) \times 1. \\
10306 &= 9876 + 5 \times 43 \times 2 \times 1. \\
10307 &= 9876 + 5 \times 43 \times 2 + 1. \\
10308 &= 9 + 8 + 7 \times 6 \times 5 \times (4 + 3)^2 + 1. \\
10309 &= -9 \times 8 + 7 + 6 \times (54 \times 32 + 1). \\
10310 &= (987 + (6 + 5) \times 4) \times (3^2 + 1). \\
10311 &= 9876 + 5 \times (43 \times 2 + 1). \\
10312 &= 98 \times 7 + 6^5 + 43^2 + 1. \\
10313 &= 9876 + 5 + 432 \times 1. \\
10314 &= 9876 + 5 + 432 + 1. \\
10315 &= (9 \times 87 + 6 \times (5 + 4)^3) \times 2 + 1. \\
10316 &= 9 + (8 + 7 \times (6 + (5 + 4)^3)) \times 2 + 1. \\
10317 &= 98 \times 7 \times (6 + 5 + 4) + 3^{(2+1)}. \\
10318 &= (9 - 8 + 7) \times 6 \times 5 \times 43 - 2 \times 1. \\
10319 &= (9 + 8) \times (7 + 6 \times 5 \times 4 \times (3 + 2) \times 1). \\
10320 &= 9 \times 8 + 7 \times (6 + (5 + 4)^3 \times 2 \times 1). \\
10321 &= 9 \times 8 + 7 \times (6 + (5 + 4)^3 \times 2) + 1. \\
10322 &= 98 \times 7 \times (6 + 5 + 4) + 32 \times 1. \\
10323 &= 98 \times 7 \times (6 + 5 + 4) + 32 + 1. \\
10324 &= 9 \times 87 \times 6 + 5^4 \times 3^2 + 1. \\
10325 &= (9 + 87 + 65) \times 4^3 + 21. \\
10326 &= (9 + 8 \times (7 \times 6 \times 5 + 4)) \times 3 \times 2 \times 1. \\
10327 &= 9 \times 8 + 7 \times (6 + (5 + 4)^3 \times 2 + 1). \\
10328 &= 9 \times (87 \times 6 + 5^4) + 3 + 2 \times 1. \\
10329 &= 9 \times (87 \times 6 + 5^4) + 3 + 2 + 1. \\
10330 &= 9 \times (87 \times 6 + 5^4) + 3 \times 2 + 1. \\
10331 &= 9 \times (87 \times 6 + 5^4) + 3^2 - 1. \\
10332 &= 9 + (87 \times 6 + 5^4) \times 3^2 \times 1. \\
10333 &= 9 + (87 \times 6 + 5^4) \times 3^2 + 1. \\
10334 &= (9 + 8 \times (7 - 654)) \times (-3 + 2 - 1). \\
10335 &= (9 + 8 \times 7) \times (6 \times 5 + 4 \times 32 + 1). \\
10336 &= (9 + 87) \times 65 + 4^{(3 \times 2)} \times 1. \\
10337 &= 98 \times 76 + (5 + 4) \times 321. \\
10338 &= 9 \times 87 + 65 \times (4 + 3) \times 21. \\
10339 &= 98 + 7 \times (6 + (5 + 4)^3 \times 2 - 1). \\
10340 &= -9 \times 8 + 76 \times (5 + 4 \times (32 + 1)). \\
10341 &= 9 \times (8 \times 7 + 6 + 543 \times 2 + 1). \\
10342 &= 9 + 8 \times 76 \times (5 + 4 \times 3) - 2 - 1. \\
10343 &= -9 - 8 - 7 + 6 \times 54 \times 32 - 1. \\
10344 &= (9 + 8 + 7) \times (6 + 5 \times (4^3 + 21)). \\
10345 &= -9 - 8 - 7 + 6 \times 54 \times 32 + 1. \\
10346 &= 98 + 7 \times (6 + (5 + 4)^3 \times 2 \times 1). \\
10347 &= 987 + 65 \times (4 \times 3)^2 \times 1. \\
10348 &= 987 + 65 \times (4 \times 3)^2 + 1. \\
10349 &= (9 \times 8 + 7) \times (65 + 4^3 + 2) \times 1. \\
10350 &= (9 \times 8 + 7) \times (65 + 4^3 + 2) + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10351 &= 1^2 + 345 \times (6 + 7 + 8 + 9). \\
10352 &= 1 \times 2 + 345 \times (6 + 7 + 8 + 9). \\
10353 &= 1 + 2 + 345 \times (6 + 7 + 8 + 9). \\
10354 &= 1 + (2 \times 3 + (4 + 5) \times 67) \times (8 + 9). \\
10355 &= (1 \times 2 + 3 \times 4 + 5) \times (67 \times 8 + 9). \\
10356 &= 1 \times 2 \times 3 \times 4^5 + 6 \times 78 \times 9. \\
10357 &= 1 + 2 \times 3 \times 4^5 + 6 \times 78 \times 9. \\
10358 &= (1 + 2 \times 3^4) \times (56 + 7) + 89. \\
10359 &= 123 \times 45 + 67 \times 8 \times 9. \\
10360 &= 1 + 23 \times (4 + 5) \times (6 \times 7 + 8) + 9. \\
10361 &= (1 + 2) \times 3456 + 7 \times (8 - 9). \\
10362 &= 12 + 345 \times (6 + 7 + 8 + 9). \\
10363 &= (1 \times 2 \times 3^4 + 5) \times (6 + 7 \times 8) + 9. \\
10364 &= 1 + (2 \times 3^4 + 5) \times (6 + 7 \times 8) + 9. \\
10365 &= 1 + 2 \times (3 + 4 + (567 + 8) \times 9). \\
10366 &= (12^3 - 4 + 5) \times 6 - 7 + 8 - 9. \\
10367 &= 12 \times 3 \times 4 \times (5 + 67) + 8 - 9. \\
10368 &= 12 \times (3 + 4 + 5 + 6 + 78) \times 9. \\
10369 &= 1 + 2 \times 3^4 \times (5 + 6 \times 7 + 8 + 9). \\
10370 &= 1^2 \times 34 \times ((5 \times 6 + 7) \times 8 + 9). \\
10371 &= 1^2 + 34 \times ((5 \times 6 + 7) \times 8 + 9). \\
10372 &= 1 \times 2 + 34 \times ((5 \times 6 + 7) \times 8 + 9). \\
10373 &= (1 + 2^3) \times 4^5 + (6 + 7) \times 89. \\
10374 &= 123 + (4 + 5) \times 67 \times (8 + 9). \\
10375 &= 1 + 2 \times 3 \times (4 + 5 \times (6 \times 7 \times 8 + 9)). \\
10376 &= (1 + 2) \times 3456 + 7 - 8 + 9. \\
10377 &= 1 \times 2 \times (3^4 + 567) \times 8 + 9. \\
10378 &= 1 + 2 \times (3^4 + 567) \times 8 + 9. \\
10379 &= (12^3 - 4 - 5) \times 6 - 7 + 8 \times 9. \\
10380 &= (1 + 2 + 3 \times 4) \times (5 + 678 + 9). \\
10381 &= (12^3 - 4 + 5) \times 6 - 7 \times (8 - 9). \\
10382 &= 1234 \times 5 + 6 \times 78 \times 9. \\
10383 &= (1^2 + 3 \times 4 \times (5 + 6)) \times 78 + 9. \\
10384 &= 1 \times 2 \times (3^4 \times (56 + 7) + 89). \\
10385 &= (1234 + 56 + 7) \times 8 + 9. \\
10386 &= (12 + 3 \times (4 + 5) \times 6 \times 7 + 8) \times 9. \\
10387 &= (1 + 2^3 + 4) \times (5 + 6 \times 7) \times (8 + 9). \\
10388 &= 1 + (2^3 + (4 + 5) \times 67) \times (8 + 9). \\
10389 &= 12 \times (3 + 4 + (5 + 6) \times 78) + 9. \\
10390 &= -1 \times 23 + (4 + 5) \times (6 + 7) \times 89. \\
10391 &= -1 + 23 \times 456 - 7 - 89. \\
10392 &= (1 + 2) \times 3456 + 7 + 8 + 9. \\
10393 &= 1 + 2 \times 3 \times (4^5 + 6 + 78 \times 9). \\
10394 &= 1 - 2 + (3 + 4) \times (5 + 6) \times (7 + 8) \times 9. \\
10395 &= (1 + 2^3) \times (4^5 + 6 \times 7 + 89). \\
10396 &= (12 + 34) \times (5 + (6 + 7) \times (8 + 9)). \\
10397 &= 1 \times 2 + (3 + 4) \times (5 + 6) \times (7 + 8) \times 9. \\
10398 &= 1 + 2 + (3 + 4) \times (5 + 6) \times (7 + 8) \times 9. \\
10399 &= ((1 + 2) \times 3^4 + 5) \times 6 \times 7 - 8 - 9. \\
10400 &= (1 + 2^3 + 4) \times (5 + 6 + 789). \\
10401 &= 12 \times (3 \times 45 + 6 + 7 \times 8) + 9. \\
10402 &= ((1 + 2)^3 + 4) \times 5 \times 67 + 8 + 9. \\
10403 &= 12^3 - 4 + (5 + 6) \times 789. \\
10404 &= 12 \times 3 \times (4 \times 56 + 7 \times 8 + 9). \\
10405 &= 1^2 + 34 \times (5 + 6 + 7) \times (8 + 9). \\
10406 &= (1 + 2) \times (3456 + 7) + 8 + 9. \\
10407 &= 1 + 2 + 34 \times (5 + 6 + 7) \times (8 + 9). \\
10408 &= -1 + 23 \times 456 - 7 - 8 \times 9. \\
10409 &= 1 \times (2 + 3) \times 4 \times 5 \times (6 + 7) \times 8 + 9. \\
10410 &= (1 \times 2 + 345) \times (6 + 7 + 8 + 9). \\
10411 &= 12^3 + 4 + (5 + 6) \times 789. \\
10412 &= 1 \times 2 - 3 + (4 + 5) \times (6 + 7) \times 89. \\
10413 &= (1 \times 2 + 3 + 45 + 67) \times 89. \\
10414 &= 12^3 + (4 + 5) \times (6 + 7) \times 89. \\
10415 &= (1 + 2) \times 3456 + 7 \times 8 - 9. \\
10416 &= 12 + 34 \times (5 + 6 + 7) \times (8 + 9). \\
10417 &= 1^2 + 3 + (4 + 5) \times (6 + 7) \times 89. \\
10418 &= 1 \times 2 + 3 + (4 + 5) \times (6 + 7) \times 89. \\
10419 &= 1 \times 2 \times 3 + (4 + 5) \times (6 + 7) \times 89. \\
10420 &= 1 + 2 \times 3 + (4 + 5) \times (6 + 7) \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10351 &= (9 \times 8 \times (7 + 6) + 5) \times (4 + 3 \times 2 + 1). \\
10352 &= 9 \times (8 + 7 \times 6) \times (5 \times 4 + 3) + 2 \times 1. \\
10353 &= 98 \times 7 \times (6 + 5 + 4) + 3 \times 21. \\
10354 &= (9 + 8) \times 7 \times (6 + (5 + 4) \times 3^2) + 1. \\
10355 &= 9 + 8 \times 7 + 6 \times 5 \times (4 + 3)^{(2+1)}. \\
10356 &= 9876 + 5 \times 4 \times (3 + 21). \\
10357 &= ((9 \times 8 + 7) \times 65 + 43) \times 2 + 1. \\
10358 &= (98 + 765) \times 4 \times 3 + 2 \times 1. \\
10359 &= 9876 + (5 \times 4 + 3) \times 21. \\
10360 &= (9 \times 8 + 76) \times 5 \times (4 + 3^2 + 1). \\
10361 &= (9 \times 8 + 76) \times 5 \times (4 + 3) \times 2 + 1. \\
10362 &= 9876 + 54 \times 3^2 \times 1. \\
10363 &= 9876 + 54 \times 3^2 + 1. \\
10364 &= -9 - 8 + 7 + 6 \times (54 \times 32 + 1). \\
10365 &= ((98 + 765) \times 4 + 3) \times (2 + 1). \\
10366 &= 9 + 8 \times 76 \times (5 + 4 \times 3) + 21. \\
10367 &= -9 + 8 + (76 + 5) \times 4 \times 32 \times 1. \\
10368 &= (9 + 87) \times (6 + 5 + 43) \times 2 \times 1. \\
10369 &= (9 + 87) \times (6 + 5 + 43) \times 2 + 1. \\
10370 &= (9 + 87) \times (65 + 43) + 2 \times 1. \\
10371 &= (9 + 87) \times (65 + 43) + 2 + 1. \\
10372 &= 9 + 8 - 7 + 6 \times (54 \times 32 - 1). \\
10373 &= -9 + 8 + 7 + 6 \times 54 \times 32 - 1. \\
10374 &= (98 + 76 + 5 \times 4^3) \times 21. \\
10375 &= (9 \times 8 + 7 \times 6) \times (5 + 43 \times 2) + 1. \\
10376 &= 9 - 8 + 7 + 6 \times 54 \times 32 \times 1. \\
10377 &= (98 + 765) \times 4 \times 3 + 21. \\
10378 &= 9 + 8 \times (7 + 6 + 5 \times 4 + 3)^2 + 1. \\
10379 &= 9 + 8 - 7 + 6 \times 54 \times 32 + 1. \\
10380 &= (98 \times 7 + 6) \times (5 + 4 + 3 + 2 + 1). \\
10381 &= (98 \times 7 + 6) \times (5 + 4 + 3 \times 2) + 1. \\
10382 &= (((9 + 8) \times 76 + 5) \times 4 + 3) \times 2 \times 1. \\
10383 &= 9 + (8 + 7 \times (65 + 4) + 3) \times 21. \\
10384 &= 9 + 8 + (76 + 5) \times 4 \times 32 - 1. \\
10385 &= 9 + 8 + (76 + 5) \times 4 \times 32 \times 1. \\
10386 &= 9 + 8 + (76 + 5) \times 4 \times 32 + 1. \\
10387 &= 9 + 8 \times (7 + 6 \times 5 \times 43) + 2 \times 1. \\
10388 &= 98 \times (7 \times 6 + 54 + 3^2 + 1). \\
10389 &= (9 + 87) \times (65 + 43) + 21. \\
10390 &= -98 + 76 \times (5 + 4^3) \times 2 \times 1. \\
10391 &= 9 + 8 + 7 + 6 \times 54 \times 32 - 1. \\
10392 &= 9 + 8 + 7 + 6 \times 54 \times 32 \times 1. \\
10393 &= 9 + 8 + 7 + 6 \times 54 \times 32 + 1. \\
10394 &= ((98 \times 7 + 6) \times 5 + 4) \times 3 + 2 \times 1. \\
10395 &= (9 + 87 + 65 + 4) \times 3 \times 21. \\
10396 &= (98 + 7) \times (6 + 5) \times (4 + 3 + 2) + 1. \\
10397 &= 9 \times (8 + 7) \times (65 + 4 \times 3) + 2 \times 1. \\
10398 &= 9 + 8 + 7 + 6 \times (54 \times 32 + 1). \\
10399 &= ((9 \times 8 + 7) \times 65 + 4^3) \times 2 + 1. \\
10400 &= (9 + 8 + 7 \times (6 + 5) \times 4) \times 32 \times 1. \\
10401 &= (9 + 8 \times 7 + 65 \times 4) \times 32 + 1. \\
10402 &= (9 + 8 + (76 + 5) \times 4^3) \times 2 \times 1. \\
10403 &= (9 + 8 + (76 + 5) \times 4^3) \times 2 + 1. \\
10404 &= (9 + 87 \times 6 + 5^4) \times 3^2 \times 1. \\
10405 &= (9 + 8 \times 7 + 6 \times 5 + 4 + 3)^2 + 1. \\
10406 &= 9876 + (5 \times 4 + 3)^2 + 1. \\
10407 &= 9 \times 87 + 6^5 + 43^2 - 1. \\
10408 &= 9 \times 87 + 6^5 + 43^2 \times 1. \\
10409 &= 9 \times 87 + 6^5 + 43^2 + 1. \\
10410 &= 9 + 8 \times (7 + 6) \times 5 \times 4 \times (3 + 2) + 1. \\
10411 &= -9 + 8 + 76 \times (5 + 4 \times (32 + 1)). \\
10412 &= 987 + 65 \times ((4 \times 3)^2 + 1). \\
10413 &= ((98 \times 7 + 6) \times 5 + 4) \times 3 + 21. \\
10414 &= 9 \times (8 + 76 + 5) \times (4 + 3^2) + 1. \\
10415 &= 9 + (8 \times 7 + 65) \times 43 \times 2 \times 1. \\
10416 &= 9876 + 54 \times (3^2 + 1). \\
10417 &= 9 + 8 \times (76 + (5 \times (4 + 3))^2 \times 1). \\
10418 &= 9 + 8 \times (76 + (5 \times (4 + 3))^2) + 1. \\
10419 &= 9 + (8 + 7) \times (6 + 5^4 + 3 \times 21). \\
10420 &= 9876 + 543 + 2 - 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10421 &= (12 + 34 + 567) \times (8 + 9). \\
10422 &= 12 \times 3 \times 45 \times 6 + 78 \times 9. \\
10423 &= (1 + 2 \times 3) \times (4 + (5 + 6) \times (7 + 8) \times 9). \\
10424 &= 1 \times 2 + (3 \times ((4 + 5) \times 6 \times 7 + 8) \times 9). \\
10425 &= (123 + 45) \times (6 + 7 \times 8) + 9. \\
10426 &= 1 + ((2 + 34) \times 5 + 6) \times 7 \times 8 + 9. \\
10427 &= 1 - 2 + 3 \times 4 \times (5 + 6) \times (7 + 8 \times 9). \\
10428 &= 12 + 3 + (4 + 5) \times (6 + 7) \times 89. \\
10429 &= 1^2 + 3 \times 4 \times (5 + 6) \times (7 + 8 \times 9). \\
10430 &= 1 \times 2 + 3 \times 4 \times (5 + 6) \times (7 + 8 \times 9). \\
10431 &= (1 + 2 \times 345 + 6 \times 78) \times 9. \\
10432 &= (1 + 2 \times 3^4) \times (5 + 6 \times 7 + 8 + 9). \\
10433 &= (1 + 2) \times 3456 + 7 \times 8 + 9. \\
10434 &= (1 + 2 + 34) \times (5 \times 6 \times 7 + 8 \times 9). \\
10435 &= 1 - 2 \times 3 + 4 \times 5 \times 6 \times (78 + 9). \\
10436 &= 1 \times 23 + (4 + 5) \times (6 + 7) \times 89. \\
10437 &= 1 + 23 + (4 + 5) \times (6 + 7) \times 89. \\
10438 &= (1 \times 2 + 34 \times ((5 + 6) + 7)) \times (8 + 9). \\
10439 &= 1 + (2 + 34 \times ((5 + 6) + 7)) \times (8 + 9). \\
10440 &= (1 + 2) \times (3456 + 7 + 8 + 9). \\
10441 &= 1^{23} + 4 \times 5 \times 6 \times (78 + 9). \\
10442 &= (12 + 34) \times (5 \times 6 \times 7 + 8 + 9). \\
10443 &= 1^2 \times 3 + 4 \times 5 \times 6 \times (78 + 9). \\
10444 &= 1^2 + 3 + 4 \times 5 \times 6 \times (78 + 9). \\
10445 &= 1 \times 2 + 3 + 4 \times 5 \times 6 \times (78 + 9). \\
10446 &= 1 \times 2 \times 3 + 4 \times 5 \times 6 \times (78 + 9). \\
10447 &= (1 + 2) \times 3456 + 7 + 8 + 9. \\
10448 &= 1 \times 2^3 + 4 \times 5 \times 6 \times (78 + 9). \\
10449 &= 1 + 2^3 + 4 \times 5 \times 6 \times (78 + 9). \\
10450 &= (12 + 3 + 4) \times (5 + 67 \times 8 + 9). \\
10451 &= 1 \times 23 \times (4 + 5 \times 6 \times (7 + 8)) + 9. \\
10452 &= 12^3 \times 4 + 5 \times (6 + 78 \times 9). \\
10453 &= (1 + 2 \times 3) \times (4^5 + 6 \times 78) + 9. \\
10454 &= 1 \times 2 + 3 \times (4 - 5 \times (6 - 78 \times 9)). \\
10455 &= (1 + 2) \times 3456 + 78 + 9. \\
10456 &= (1^2 + 3) \times (4 + 5 \times 6 \times (78 + 9)). \\
10457 &= (1234 + 5 + 67) \times 8 + 9. \\
10458 &= 1 \times 2 \times (3^4 \times 5 + 67 \times 8 \times 9). \\
10459 &= 1 + 2 \times (3^4 \times 5 + 67 \times 8 \times 9). \\
10460 &= -1 + (2 + 3 \times 4 \times (5 + 6)) \times 78 + 9. \\
10461 &= (1 + 2) \times (3456 + 7) + 8 \times 9. \\
10462 &= 1 + (2 + 3 \times 4 \times (5 + 6)) \times 78 + 9. \\
10463 &= 1 \times 23 + 4 \times 5 \times 6 \times (78 + 9). \\
10464 &= (1 + 2) \times 3456 + 7 + 89. \\
10465 &= (12 \times 3^4 + 5 \times 67) \times 8 + 9. \\
10466 &= 1 - 23 \times (4 - 5 \times 6 \times (7 + 8) - 9). \\
10467 &= (1 + 2^3) \times (4^5 + 67 + 8 \times 9). \\
10468 &= 1 + ((2 + 3) \times (4 \times 56 + 7) + 8) \times 9. \\
10469 &= (12^3 + 4 + 5) \times 6 + 7 \times 8 - 9. \\
10470 &= (12^3 - 4 + 5) \times 6 + 7 + 89. \\
10471 &= -1 + (2^3 \times 4 + 56) \times 7 \times (8 + 9). \\
10472 &= (1 \times 2^3 \times 4 + 56) \times 7 \times (8 + 9). \\
10473 &= 1 + (2^3 \times 4 + 56) \times 7 \times (8 + 9). \\
10474 &= ((1 + 2)^3 + 4) \times 5 \times 67 + 89. \\
10475 &= -1 + 2 \times (3^4 \times 56 + 78 \times 9). \\
10476 &= 1 \times 2 \times (3 + 4 + 567 + 8) \times 9. \\
10477 &= 1 + 2 \times (3 + 4 + 567 + 8) \times 9. \\
10478 &= (1 + 2) \times (3456 + 7) + 89. \\
10479 &= 1 + 2 \times (3 + 4^5 + 6 \times 78 \times 9). \\
10480 &= (1^2 + 3) \times 4 \times 5 \times (6 \times 7 + 89). \\
10481 &= (1 + (2 + 34) \times 5 + 6) \times 7 \times 8 + 9. \\
10482 &= 12^3 \times 4 + 5 \times 6 \times 7 \times (8 + 9). \\
10483 &= 1 + 23 \times 456 - 7 - 8 + 9. \\
10484 &= -1 - (2 + 3 - (4 + 5 + 6) \times 78) \times 9. \\
10485 &= (12 + 3) \times (4 + 5 \times (67 + 8 \times 9)). \\
10486 &= (1 + 2 \times 3) \times (4^5 + 6 \times (7 + 8 \times 9)). \\
10487 &= (1 + 2) \times 3456 + 7 \times (8 + 9). \\
10488 &= (1 + 2 \times 34) \times (56 + 7 + 89). \\
10489 &= 1 + 23 \times 4 \times (5 \times (6 + 7 + 8) + 9). \\
10490 &= 1 + 23 \times 456 + (-7 + 8)^9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10421 &= 9876 + 543 + 2 \times 1. \\
10422 &= 9876 + 543 + 2 + 1. \\
10423 &= 9 \times (87 \times 6 + 54 + 3) \times 2 + 1. \\
10424 &= (9 + (8 \times 7 + 65) \times 43) \times 2 \times 1. \\
10425 &= 9 + 8 \times (7 + 6 + 5 + 4 \times 321). \\
10426 &= 9 + 8 \times 7 \times (6 + 5 \times 4 \times 3^2) + 1. \\
10427 &= -9 + 87 \times 6 \times 5 \times 4 - 3 - 2 + 1. \\
10428 &= (9 \times 8 + 7) \times (65 + 4 + 3 \times 21). \\
10429 &= (9 \times 8 + 7) \times (6 + 5 \times 4 \times 3) \times 2 + 1. \\
10430 &= (9 \times 87 + 65 \times 4) \times (3^2 + 1). \\
10431 &= (9 \times 8 + 7) \times (6 + 5) \times 4 \times 3 + 2 + 1. \\
10432 &= (98 + (7 + 6) \times 5) \times (43 + 21). \\
10433 &= 9 + 8 \times 7 + 6 \times 54 \times 32 \times 1. \\
10434 &= 9 + 8 \times 7 + 6 \times 54 \times 32 + 1. \\
10435 &= (98 + (7 + 6) \times 5) \times 4^3 + 2 + 1. \\
10436 &= 98 \times 7 + 6 \times 5 \times (4 + 321). \\
10437 &= 987 \times 6 + 5 \times 43 \times 21. \\
10438 &= 9876 + 5^4 - 3 \times 21. \\
10439 &= 9 + 8 \times 7 + 6 \times (54 \times 32 + 1). \\
10440 &= 9876 + 543 + 21. \\
10441 &= 9 \times 8 + (76 + 5) \times 4 \times 32 + 1. \\
10442 &= (98 + 76) \times 5 \times 4 \times 3 + 2 \times 1. \\
10443 &= 9876 + (5 + 4) \times 3 \times 21. \\
10444 &= 9 + 87 \times 6 \times 5 \times 4 - 3 - 2 \times 1. \\
10445 &= (9 + 8 \times (7 + 6) \times 5 \times 4) \times (3 + 2) \times 1. \\
10446 &= (9 + 8 \times (7 + 6) \times 5 \times 4) \times (3 + 2) + 1. \\
10447 &= 9 \times 8 + 7 + 6 \times 54 \times 32 \times 1. \\
10448 &= 9 \times 8 + 7 + 6 \times 54 \times 32 + 1. \\
10449 &= 9 + 87 \times 6 \times (5 + 4 \times 3 + 2 + 1). \\
10450 &= 9 + 8 \times 765 + 4321. \\
10451 &= 9 + 87 \times 6 \times 5 \times 4 + 3 - 2 + 1. \\
10452 &= 9 + 87 \times 6 \times 5 \times 4 + 3 \times (2 - 1). \\
10453 &= 9 \times 8 + 7 + 6 \times (54 \times 32 + 1). \\
10454 &= 9 + 87 \times 6 \times 5 \times 4 + 3 + 2 \times 1. \\
10455 &= 9 + 87 \times 6 \times 5 \times 4 + 3 + 2 + 1. \\
10456 &= 9 + 87 \times 6 \times 5 \times 4 + 3 \times 2 + 1. \\
10457 &= 9 + 8 + (7 + 65) \times ((4 \times 3)^2 + 1). \\
10458 &= 9 + 87 \times 6 \times 5 \times 4 + 3^2 \times 1. \\
10459 &= 9 + 87 \times 6 \times 5 \times 4 + 3^2 + 1. \\
10460 &= 98 \times 7 + 6 \times 543 \times (2 + 1). \\
10461 &= (98 + 76) \times 5 \times 4 \times 3 + 21. \\
10462 &= 9 \times 87 \times (6 + 5) + 43^2 \times 1. \\
10463 &= 9 \times 87 \times (6 + 5) + 43^2 + 1. \\
10464 &= 9 + 87 + 6 \times 54 \times 32 \times 1. \\
10465 &= 9 + 87 + 6 \times 54 \times 32 + 1. \\
10466 &= 98 + (76 + 5) \times 4^3 \times 2 \times 1. \\
10467 &= 98 + (76 + 5) \times 4 \times 32 + 1. \\
10468 &= 9876 + 5^4 - 32 - 1. \\
10469 &= 9 + 8 \times 7 + ((6 \times 5 + 4) \times 3)^2 \times 1. \\
10470 &= 9 + 87 + 6 \times (54 \times 32 + 1). \\
10471 &= -9 - 8 + 76 \times (5 + 4^3) \times 2 \times 1. \\
10472 &= (9 + 8) \times (76 + 54 \times (3^2 + 1)). \\
10473 &= 9 + 87 \times 6 \times 5 \times 4 + 3 + 21. \\
10474 &= 98 + 7 + 6 \times 54 \times 32 + 1. \\
10475 &= 9 + 8 + (7 \times 65 + 43) \times 21. \\
10476 &= 9 \times (87 \times 6 + 5 \times 4 \times 3) \times 2 \times 1. \\
10477 &= 9 \times (87 \times 6 + 5 \times 4 \times 3) \times 2 + 1. \\
10478 &= ((9 + 8) \times 7 \times (6 + 5) \times 4 + 3) \times 2 \times 1. \\
10479 &= 98 + 7 + 6 \times (54 \times 32 + 1). \\
10480 &= 9 + 87 \times 6 \times 5 \times 4 + 32 - 1. \\
10481 &= 9 + 87 \times 6 \times 5 \times 4 + 32 \times 1. \\
10482 &= 9 + 87 \times 6 \times 5 \times 4 + 32 + 1. \\
10483 &= (9 \times 87 \times 6 + 543) \times 2 + 1. \\
10484 &= 9 \times 8 + 76 \times (5 + 4 \times (32 + 1)). \\
10485 &= (9 + 87 \times 6 \times 5) \times 4 + 3^2 \times 1. \\
10486 &= (9 + 87 \times 6 \times 5) \times 4 + 3^2 + 1. \\
10487 &= (9 + 8) \times 7 + 6 \times 54 \times 32 \times 1. \\
10488 &= (9 + 8) \times 7 + 6 \times 54 \times 32 + 1. \\
10489 &= 9 + 8 \times (7 + 6 \times (5 \times 43 + 2) + 1). \\
10490 &= (9 \times (8 + 76 \times 5) + 4) \times 3 + 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10491 &= (12^3 + 4 + 5) \times 6 + 78 - 9. \\
10492 &= 1 + 2 + (3 - 4 \times 5) \times (6 - 7 \times 89). \\
10493 &= -1 + 23 \times 456 + 7 + 8 - 9. \\
10494 &= ((1 + 2 + 34) \times 5 \times 6 + 7 \times 8) \times 9. \\
10495 &= 1 + (2 \times (3 \times 4 + 567) + 8) \times 9. \\
10496 &= (1^2 + 3) \times 4 \times (567 + 89). \\
10497 &= (1234 + (5 + 6) \times 7) \times 8 + 9. \\
10498 &= 1 \times 23 \times 456 - 7 + 8 + 9. \\
10499 &= 1 + 23 \times 456 - 7 + 8 + 9. \\
10500 &= 12 \times (3 \times 45 \times 6 + 7 \times 8 + 9). \\
10501 &= (12^3 + 4 + 5) \times 6 + 7 + 8 \times 9. \\
10502 &= (12 + 34 + 5 + 67) \times 89. \\
10503 &= (1 + 2) \times 3456 + (7 + 8) \times 9. \\
10504 &= (1 \times 2^3)^4 + (5 + 67) \times 89. \\
10505 &= ((1 + 2) \times 3^4 + 5) \times 6 \times 7 + 89. \\
10506 &= (12 \times 34 + 5 \times 6 \times 7) \times (8 + 9). \\
10507 &= (1 + 2 \times 3) \times (4^5 + 6 \times 78 + 9). \\
10508 &= 1 - 23 + (4 + 5 + 6) \times 78 \times 9. \\
10509 &= 12 \times 3 \times 45 \times 6 + 789. \\
10510 &= -1 + 23 \times (4 \times (56 + 7 \times 8) + 9). \\
10511 &= 1 \times 23 \times (4 \times (56 + 7 \times 8) + 9). \\
10512 &= 1 \times 23 \times 456 + 7 + 8 + 9. \\
10513 &= 1 + 23 \times 456 + 7 + 8 + 9. \\
10514 &= 12 + (3^4 + 5 \times 6 + 7) \times 89. \\
10515 &= 1 + 2 + ((3^4 + 5 \times (6 + 7)) \times 8) \times 9. \\
10516 &= -1 - 23 + 4 \times 5 \times (67 \times 8 - 9). \\
10517 &= -1 \times 23 + 4 \times 5 \times (67 \times 8 - 9). \\
10518 &= (12^3 + 4 + 5) \times 6 + 7 + 89. \\
10519 &= -12 + 34 \times 5 \times (6 + 7 \times 8) - 9. \\
10520 &= (1 - 23 - 4^5 - 6) \times (7 - 8 - 9). \\
10521 &= (1 \times (2 \times 3)^4 + 5 + 6 + 7) \times 8 + 9. \\
10522 &= 1 + ((2 \times 3)^4 + 5 + 6 + 7) \times 8 + 9. \\
10523 &= -1 - 2 \times 3 + (4 + 5 + 6) \times 78 \times 9. \\
10524 &= 12 + ((3^4) + 5 \times (6 + 7)) \times (8 \times 9). \\
10525 &= 1 - 2 \times 3 + (4 + 5 + 6) \times 78 \times 9. \\
10526 &= 1 - 2 - 3 + (4 + 5 + 6) \times 78 \times 9. \\
10527 &= (12^3 + 4 \times 5 \times 6) \times (78 + 9). \\
10528 &= -1 - 2 + 34 \times 5 \times (6 + 7 \times 8) - 9. \\
10529 &= (1 + (2 \times 3)^4 + 5 + 6 + 7) \times 8 + 9. \\
10530 &= 12^3 \times (4 + 5 + 6) \times 78 \times 9. \\
10531 &= 12^3 + (4 + 5 + 6) \times 78 \times 9. \\
10532 &= 1 \times 2 + 3^4 \times (5 + 6 + 7 \times (8 + 9)). \\
10533 &= 1^2 \times 3 + (4 + 5 + 6) \times 78 \times 9. \\
10534 &= 1^2 + 3 + (4 + 5 + 6) \times 78 \times 9. \\
10535 &= 1 \times 2 + 3 + (4 + 5 + 6) \times 78 \times 9. \\
10536 &= 12 \times (34 \times 5 + 6 + 78 \times 9). \\
10537 &= (12 + 34 \times 5 + 6) \times 7 \times 8 + 9. \\
10538 &= 1 \times 2^3 + (4 + 5 + 6) \times 78 \times 9. \\
10539 &= 1 \times 234 \times (5 \times 6 + 7 + 8) + 9. \\
10540 &= 1 + 234 \times (5 \times 6 + 7 + 8) + 9. \\
10541 &= (12^3 + 4 + 5) \times 6 + 7 \times (8 + 9). \\
10542 &= 12 + 3^4 \times (5 + 6 + 7 \times (8 + 9)). \\
10543 &= 12 + 34 \times 5 \times (6 + 7 \times 8) - 9. \\
10544 &= -1 + 2 + 3 + 4 \times 5 \times (67 \times 8 - 9). \\
10545 &= 12 + 3 + (4 + 5 + 6) \times 78 \times 9. \\
10546 &= -1 + 2 \times 3^4 \times 5 \times (6 + 7) + 8 + 9. \\
10547 &= 1 \times 2 \times 3^4 \times 5 \times (6 + 7) + 8 + 9. \\
10548 &= 12 \times (34 + 56 + 789). \\
10549 &= 1^2 \times 34 \times 5 \times (6 + 7 \times 8) + 9. \\
10550 &= 1^2 + 34 \times 5 \times (6 + 7 \times 8) + 9. \\
10551 &= 1 \times 2 + 34 \times 5 \times (6 + 7 \times 8) + 9. \\
10552 &= 12^3 \times 4 + 56 \times (7 \times 8 + 9). \\
10553 &= 1 \times 23 \times 456 + 7 \times 8 + 9. \\
10554 &= 1 + 23 \times 456 + 7 \times 8 + 9. \\
10555 &= 1 \times 2 \times (3^4 \times 5 \times (6 + 7) + 8) + 9. \\
10556 &= 1 + 2 \times (3^4 \times 5 \times (6 + 7) + 8) + 9. \\
10557 &= (1 + 2)^3 + (4 + 5 + 6) \times 78 \times 9. \\
10558 &= 1 + 23 \times (4 + 5 + (6 \times 7 \times 8) \times 9). \\
10559 &= 1 \times 2 + (3 + (4 + 5 + 6) \times 78) \times 9. \\
10560 &= (1 + 2 + 3 + 4) \times (5 + 6) \times (7 + 89).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10491 &= (9 + 8 \times 76) \times (5 + 4 \times 3) + 2 \times 1. \\
10492 &= (9 + 8 \times 76) \times (5 + 4 \times 3) + 2 + 1. \\
10493 &= (9 + 8) \times 7 + 6 \times (54 \times 32 + 1). \\
10494 &= 9 \times (8 \times 7 + 6 \times 5 \times (4 + 32 + 1)). \\
10495 &= 9 \times ((8 + 7 + 6) \times 54 + 32) + 1. \\
10496 &= (9 + 8 + (7 + 6) \times 5) \times 4 \times 32 \times 1. \\
10497 &= (9 + 8 + (7 + 6) \times 5) \times 4^3 \times 2 + 1. \\
10498 &= 1 + 23 \times 456 - (7 - 8) \times 9. \\
10499 &= 9876 + 5^4 - 3 + 2 - 1. \\
10500 &= (9 + 87 \times 6 \times 5) \times 4 + 3 + 21. \\
10501 &= 9 + 87 + (6 \times (5 + 4 \times 3))^2 + 1. \\
10502 &= 9 + 8765 + (4 \times 3)^{(2+1)}. \\
10503 &= 9 \times (8 + 7) + 6 \times 54 \times 32 \times 1. \\
10504 &= 9 \times (8 + 7) + 6 \times 54 \times 32 + 1. \\
10505 &= 9 + 8 + 76 \times (5 + 4^3) \times 2 \times 1. \\
10506 &= 9876 + 5^4 + 3 + 2 \times 1. \\
10507 &= 9876 + 5^4 + 3 + 2 + 1. \\
10508 &= 9876 + 5^4 + 3 \times 2 + 1. \\
10509 &= (9 + 87 \times 6 \times 5) \times 4 + 32 + 1. \\
10510 &= 9876 + 5^4 + 3^2 \times 1. \\
10511 &= 9876 + 5^4 + 3^2 + 1. \\
10512 &= 9 + 87 \times 6 \times 5 \times 4 + 3 \times 21. \\
10513 &= 9 \times 8 \times (7 + 6 + 5 + 4 \times 32) + 1. \\
10514 &= (98 \times 7 + 65) \times (4 + 3^2 + 1). \\
10515 &= (98 \times 7 + 65) \times (4 + 3) \times 2 + 1. \\
10516 &= 9876 + 5 \times 4 \times 32 \times 1. \\
10517 &= 9876 + 5 \times 4 \times 32 + 1. \\
10518 &= 9 + (87 + 6) \times (5 + 4 \times 3^{(2+1)}). \\
10519 &= 98 \times (7 + 6) + 5 \times 43^2 \times 1. \\
10520 &= 98 \times (7 + 6) + 5 \times 43^2 + 1. \\
10521 &= (9 \times 8 \times 7 + 6) \times 5 \times 4 + 321. \\
10522 &= 9 + (8 + (7 + 6) \times 5) \times (4 \times 3)^2 + 1. \\
10523 &= 9 + 876 \times (5 + 4 + 3) + 2 \times 1. \\
10524 &= 9 + 876 \times (5 + 4 + 3) + 2 + 1. \\
10525 &= 9876 + 5^4 + 3 + 21. \\
10526 &= (9 + 8) \times (76 + 543) + 2 + 1. \\
10527 &= 9 \times (8 + 7 + 6) \times 54 + 321. \\
10528 &= 9876 + 5^4 + 3^{(2+1)}. \\
10529 &= (9 + (8 + 7 + 65) \times 4) \times 32 + 1. \\
10530 &= 9 \times (8 + 76 + 543 \times 2 \times 1). \\
10531 &= 9 \times (8 + 7 + 6 + 5) \times (43 + 2) + 1. \\
10532 &= 9 \times (8 \times 7 \times 6 + 54) \times 3 + 2 \times 1. \\
10533 &= 9876 + 5^4 + 32 \times 1. \\
10534 &= 9876 + 5^4 + 32 + 1. \\
10535 &= 9 + 87 \times (6 + 5)(4 \times 3)^2 - 1. \\
10536 &= 98 \times 7 \times 6 + 5 \times 4 \times 321. \\
10537 &= (9 + 8) \times 76 + 5 \times 43^2 \times 1. \\
10538 &= (9 + 8) \times 76 + 5 \times 43^2 + 1. \\
10539 &= (9 + 87 \times 6 \times 5) \times 4 + 3 \times 21. \\
10540 &= (9 \times 8 + 7 \times 65) \times 4 \times (3 + 2) \times 1. \\
10541 &= (9 \times 8 + 7 \times 65) \times 4 \times (3 + 2) + 1. \\
10542 &= 987 + 65 \times (4 + 3) \times 21. \\
10543 &= -98 \times 7 + 6 \times 5^4 \times 3 - 21. \\
10544 &= (9 + 8) \times (76 + 543) + 21. \\
10545 &= 9 + 8 \times (7 \times (6 \times 5 + 4^3) \times 2 + 1). \\
10546 &= (9 + 8 \times 7 \times (6 \times 5 + 4^3)) \times 2 \times 1. \\
10547 &= 98 + (76 + 5) \times 43 \times (2 + 1). \\
10548 &= 9 \times (8 \times 76 + 543 + 21). \\
10549 &= 9 + (87 \times 6 + 5) \times 4 \times (3 + 2) \times 1. \\
10550 &= 9 + (87 \times 6 + 5) \times 4 \times (3 + 2) + 1. \\
10551 &= 9 \times (8 \times 7 \times 6 + 54) \times 3 + 21. \\
10552 &= -9 + (8 + 7) \times (6 + 5) \times 4^3 + 2 - 1. \\
10553 &= 9 + 8 \times (7 + 6 \times 5 \times 43 + 21). \\
10554 &= -9 + (8 + 7) \times (6 + 5) \times 4^3 + 2 + 1. \\
10555 &= (9 + 8) \times 76 \times 5 + 4^{(3 \times 2)} - 1. \\
10556 &= (9 + 8) \times 76 \times 5 + 4^{(3 \times 2)} \times 1. \\
10557 &= 9 \times 87 + 6 \times 543 \times (2 + 1). \\
10558 &= (9 + 8) \times (76 + 543 + 2) + 1. \\
10559 &= 9 \times 8 + 76 \times (5 + 4^3) \times 2 - 1. \\
10560 &= (9 + 87) \times (65 + 43 + 2) \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10561 &= 12 + 34 \times 5 \times (6 + 7 \times 8) + 9. \\
10562 &= -1 + 23 + 4 \times 5 \times (67 \times 8 - 9). \\
10563 &= 123 + 4 \times 5 \times 6 \times (78 + 9). \\
10564 &= 1 \times 2 \times (3^4 \times 5 \times (6 + 7) + 8 + 9). \\
10565 &= 1 + 2 \times (3^4 \times 5 \times (6 + 7) + 8 + 9). \\
10566 &= 12 \times 3 + (4 + 5 + 6) \times 78 \times 9. \\
10567 &= 1 \times 23 \times 456 + 7 + 8 \times 9. \\
10568 &= 1 + 23 \times 456 + 7 + 8 \times 9. \\
10569 &= 12 + (3 + (4 + 5 + 6) \times 78) \times 9. \\
10570 &= 1 \times 23 \times 456 - 7 + 89. \\
10571 &= 1 + 23 \times 456 - 7 + 89. \\
10572 &= 12 \times (3^4 + 5 + 6 + 789). \\
10573 &= 12 \times 3^4 \times (5 + 6) - 7 \times (8 + 9). \\
10574 &= 1 \times 2 \times (3 + 4 \times (5 + 6) \times 7) \times (8 + 9). \\
10575 &= 1 \times 23 \times 456 + 78 + 9. \\
10576 &= 1 + 23 \times 456 + 78 + 9. \\
10577 &= 1 \times 23 \times (456 + 7) - 8 \times 9. \\
10578 &= 123 \times (4 + 5 \times (6 + 7) + 8 + 9). \\
10579 &= (12 \times 3 \times 4 + 5) \times (6 + 7 \times 8 + 9). \\
10580 &= 1 \times (2 + 3) \times 4 \times (5 \times (6 + 7) \times 8 + 9). \\
10581 &= 12 \times (345 + 67 \times 8) + 9. \\
10582 &= -1 + (23 + 4) \times 56 \times 7 + 8 - 9. \\
10583 &= -1 + 23 \times 456 + 7 + 89. \\
10584 &= 1 \times 23 \times 456 + 7 + 89. \\
10585 &= 1 + 23 \times 456 + 7 + 89. \\
10586 &= (1 \times 2 + 3 \times 4 \times (5 + 6)) \times (7 + 8 \times 9). \\
10587 &= 1 + (2 + 3 \times 4 \times (5 + 6)) \times (7 + 8 \times 9). \\
10588 &= -123 + 4 \times 5 \times 67 \times 8 - 9. \\
10589 &= -1 + 2 \times ((3 \times 4 + 56) \times 78 - 9). \\
10590 &= (1 + 2)^{(3+4)} \times 5 - 6 \times 7 \times 8 - 9. \\
10591 &= (1 + 2 \times 3 + 45 + 67) \times 89. \\
10592 &= 1 + (2 \times 3^4 - 5) \times 67 + 8 \times 9. \\
10593 &= (1 + 2) \times (3 + 4 + 56) \times 7 \times 8 + 9. \\
10594 &= -1 \times 2 + 3 \times (4 + (56 - 7) \times 8 \times 9). \\
10595 &= (1^2 + 3 \times 4) \times (5 + 6 \times (7 + 8) \times 9). \\
10596 &= 12 \times (34 + 56 \times (7 + 8) + 9). \\
10597 &= -1 \times 23 + 4 \times 5 \times (67 - 8) \times 9. \\
10598 &= -1 + 2 \times (3 \times 4 + 56) \times 78 - 9. \\
10599 &= 1 \times 2 \times (3 \times 4 + 56) \times 78 - 9. \\
10600 &= (1 + 2 \times 3 \times 4) \times (5 \times 67 + 89). \\
10601 &= 1 \times (23 + 4) \times 56 \times 7 + 8 + 9. \\
10602 &= 1 + (23 + 4) \times 56 \times 7 + 8 + 9. \\
10603 &= 1 + 2 \times 3^4 \times 5 \times (6 + 7) + 8 \times 9. \\
10604 &= (-12 + 34) \times (5 + 6 \times 78 + 9). \\
10605 &= (12 + 3) \times (4 \times 5 + 678 + 9). \\
10606 &= -123 + 4 \times 5 \times 67 \times 8 + 9. \\
10607 &= 1 \times 23 \times 456 + 7 \times (8 + 9). \\
10608 &= 1 + 23 \times 456 + 7 \times (8 + 9). \\
10609 &= 1^2 + (3 + 45) \times (6 + 7) \times (8 + 9). \\
10610 &= 1 \times 2 + (3 + 45) \times (6 + 7) \times (8 + 9). \\
10611 &= 12 \times 3^4 + 567 \times (8 + 9). \\
10612 &= (1 \times 2 + 3 \times 4) \times (56 + 78 \times 9). \\
10613 &= 1 + 2 \times (3 + 4) \times (56 + 78 \times 9). \\
10614 &= 1 \times (23 \times 4 + 5 \times 6) \times (78 + 9). \\
10615 &= 1 + (23 \times 4 + 5 \times 6) \times (78 + 9). \\
10616 &= -1 + 2 \times (3 \times 4 + 56) \times 78 + 9. \\
10617 &= 1 \times 2 \times (3 \times 4 + 56) \times 78 + 9. \\
10618 &= 1 + 2 \times (3 \times 4 + 56) \times 78 + 9. \\
10619 &= 1 \times 2 \times 3^4 \times 5 \times (6 + 7) + 89. \\
10620 &= (1 \times 2 \times 3 + 4 + 5) \times (6 + 78 \times 9). \\
10621 &= 1 + (2 \times 3 + 4 + 5) \times (6 + 78 \times 9). \\
10622 &= -1 + 23 \times 456 + (7 + 8) \times 9. \\
10623 &= 1 \times 23 \times 456 + (7 + 8) \times 9. \\
10624 &= 1 + 23 \times 456 + (7 + 8) \times 9. \\
10625 &= (1 + 2 \times 3 \times 4) \times 5 \times (6 + 7 + 8 \times 9). \\
10626 &= (1 + 2 \times 34) \times (5 \times (6 + 7) + 89). \\
10627 &= 1 + 2 \times ((3 \times 4 + 56) \times 78 + 9). \\
10628 &= (12^3 + 45) \times 6 + 7 - 8 - 9. \\
10629 &= (1 + 2) \times (3456 + 78 + 9). \\
10630 &= 1 + (23 \times (4 + 5 + 6 \times 7) + 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10561 &= (9 + 87) \times 65 + 4321. \\
10562 &= (9 \times (8 + 7) + 6 \times 5) \times 4^3 + 2 \times 1. \\
10563 &= (9 + 8 + 7 \times (65 + 4) + 3) \times 21. \\
10564 &= 9876 + 5^4 + 3 \times 21. \\
10565 &= (98 + (76 + 5) \times 4^3) \times 2 + 1. \\
10566 &= 9 \times (87 \times 6 + 5^4 + 3^{(2+1)}). \\
10567 &= -98 \times 7 + 6 \times 5^4 \times 3 + 2 + 1. \\
10568 &= -9 \times 8 + 76 \times 5 \times 4 \times (3 \times 2 + 1). \\
10569 &= 9 + (8 + 7 + 65) \times 4 \times (32 + 1). \\
10570 &= (9 + 876 + 5^4) \times (3 \times 2 + 1). \\
10571 &= 9 + (8 + 7) \times (6 + 5) \times 4^3 + 2 \times 1. \\
10572 &= 9 + (8 + 7) \times (6 + 5) \times 4^3 + 2 + 1. \\
10573 &= 98 \times 76 + 5^4 \times (3 + 2) \times 1. \\
10574 &= 98 \times 76 + 5^4 \times (3 + 2) + 1. \\
10575 &= (9 \times (8 + 7) + 6) \times 5 \times (4 \times 3 + 2 + 1). \\
10577 &= 9 + 8 \times (7 + (654 + 3) \times 2 \times 1). \\
10577 &= 9 + 8 \times (7 + 6 \times 5 + 4 \times 321). \\
10578 &= (9 + 8 + (7 + 6) \times 5) \times 43 \times (2 + 1). \\
10579 &= (9 + 8 \times 7 + 6) \times (5 + (4 \times 3)^2 \times 1). \\
10580 &= (9 + 8 \times (7 + 6) \times 5) \times 4 \times (3 + 2) \times 1. \\
10581 &= 9 + 8 + 76 \times ((5 + 4^3) \times 2 + 1). \\
10582 &= 9 \times 8 \times 7 \times (6 + 5 - 4) \times 3 - 2 \times 1. \\
10583 &= 9 + (876 + 5) \times 4 \times 3 + 2 \times 1. \\
10584 &= (9 \times 8 + 76 + 5 \times 4) \times 3 \times 21. \\
10585 &= 9 \times 8 \times 7 \times (6 + 5 + 4 + 3 \times 2) + 1. \\
10586 &= 98 + 76 \times (5 + 4^3) \times 2 \times 1. \\
10587 &= 98 + 76 \times (5 + 4^3) \times 2 + 1. \\
10588 &= (9 + 87 \times 6) \times 5 \times 4 - 32 \times 1. \\
10589 &= (9 + 87 \times 6) \times 5 \times 4 - 32 + 1. \\
10590 &= 9 + (8 + 7) \times (6 + 5) \times 4^3 + 21. \\
10591 &= (9 + 8) \times 7 \times (65 + 4 \times 3 \times 2 \times 1). \\
10592 &= 9 \times 8 \times 76 + 5 \times 4(3 + 2) \times 1. \\
10593 &= 9 + 8 \times 7 \times (6 + 54 \times 3 + 21). \\
10594 &= 9 + (8 + (7 + 6) \times 5) \times ((4 \times 3)^2 + 1). \\
10595 &= (9 \times (8 + 7) \times 6 + 5) \times (4 + 3^2) \times 1. \\
10596 &= 9876 + 5 \times (4 \times 3)^2 \times 1. \\
10597 &= 9876 + 5 \times (4 \times 3)^2 + 1. \\
10598 &= 98 + 7 \times 6 \times 5 \times ((4 + 3)^2 + 1). \\
10599 &= 9 + (8 + 7) \times ((6 + 5) \times 4^3 + 2 \times 1). \\
10600 &= ((9 + 87) \times (6 + 5) + 4) \times (3^2 + 1). \\
10601 &= 9 + 8 + 7 \times (65 + 4 + 3) \times 21. \\
10602 &= 9 + (876 + 5) \times 4 \times 3 + 21. \\
10603 &= (9 + 8 + 76) \times (54 + 3) \times 2 + 1. \\
10604 &= -9 + 8765 + 43^2 - 1. \\
10605 &= 9 \times (8 + 76 \times 5 + 4) \times 3 + 21. \\
10606 &= (98 + 7) \times (65 + 4 + 32) + 1. \\
10607 &= 9876 + (5 + 4)^3 + 2 \times 1. \\
10608 &= 9876 + (5 + 4)^3 + 2 + 1. \\
10609 &= 9 + 8 + (7 + 6 \times 54) \times 32 \times 1. \\
10610 &= 9 + 8 + (7 + 6 \times 54) \times 32 + 1. \\
10611 &= 9876 + 5 \times (4 + 3) \times 21. \\
10612 &= 987 + 6^5 + 43^2 \times 1. \\
10613 &= 987 + 6^5 + 43^2 + 1. \\
10614 &= (98 + 76) \times (54 + 3 \times 2 + 1). \\
10615 &= (9 + 87 \times 6) \times 5 \times 4 - 3 - 2 \times 1. \\
10616 &= (9 + 87 \times 6) \times 5 \times 4 - 3 - 2 + 1. \\
10617 &= (9 + 87 \times 6) \times 5 \times 4 - 3 \times (2 - 1). \\
10618 &= 9 + (8 \times 7 + (6 + 5) \times 4 + 3)^2 \times 1. \\
10619 &= 98 \times 7 + (6 + 5) \times 43 \times 21. \\
10620 &= 9 \times (87 + 6 + 543 \times 2 + 1). \\
10621 &= (9 + 8 + 7 \times 6) \times 5 \times 4 \times 3^2 + 1. \\
10622 &= (9 + 876) \times (5 + 4 + 3) \times 2 \times 1. \\
10623 &= 9 + 8765 + 43^2 \times 1. \\
10624 &= 9 + 8765 + 43^2 + 1. \\
10625 &= 9 \times (8 + 7) \times 65 + 43^2 + 1. \\
10626 &= 9876 + (5 + 4)^3 + 21. \\
10627 &= (9 + 87 + 65) \times (4^3 + 2) + 1. \\
10628 &= (9 + 87 \times 6) \times 5 \times 4 + 3^2 - 1. \\
10629 &= (9 + 87 \times 6) \times 5 \times 4 + 3^2 \times 1. \\
10630 &= (9 + 87 \times 6) \times 5 \times 4 + 3^2 + 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10631 &= 1 \times 2^3 \times 4 \times 5 \times 67 - 89. \\
10632 &= 1^2 \times 3 \times (4 + 5 \times (6 + 78 \times 9)). \\
10633 &= 1^2 + 3 \times (4 + 5 \times (6 + 78 \times 9)). \\
10634 &= 1 \times 2 + 3 \times (4 + 5 \times (6 + 78 \times 9)). \\
10635 &= 1 + 2 + 3 \times (4 + 5 \times (6 + 78 \times 9)). \\
10636 &= (-1 + 2^3 \times 4 \times 5) \times 67 - 8 - 9. \\
10637 &= -9 \times 8 + 765 \times (4 \times 3 + 2) - 1. \\
10638 &= (1 + 2) \times (3 \times 4^5 + 6 \times (7 + 8 \times 9)). \\
10639 &= (-12 + 3 + 4 \times 5 \times 67) \times 8 - 9. \\
10640 &= (12 + 3 + 4) \times (56 + 7 \times 8 \times 9). \\
10641 &= (1 + 2) \times (3 + 4 + 5 \times (6 + 78 \times 9)). \\
10642 &= (1 \times 234 + 56 \times 7) \times (8 + 9). \\
10643 &= 1 + (234 + 56 \times 7) \times (8 + 9). \\
10644 &= 12 + 3 \times (4 + 5 \times (6 + 78 \times 9)). \\
10645 &= 12^3 \times 4 - 5 + 6 \times 7 \times 89. \\
10646 &= (12^3 + 45) \times 6 + 7 - 8 + 9. \\
10647 &= (1^2 + 3 \times 4) \times (5 \times 6 + 789). \\
10648 &= 1 \times 2^3 \times 4 \times 5 \times 67 - 8 \times 9. \\
10649 &= 1 \times 23 \times (4 + 5 \times 6 \times (7 + 8) + 9). \\
10650 &= 1 \times 2 \times (3^4 \times 56 + 789). \\
10651 &= 1 + 2 \times (3^4 \times 56 + 789). \\
10652 &= 1 - 2 - 3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10653 &= 123 + (4 + 5 + 6) \times 78 \times 9. \\
10654 &= 1 \times 2 \times (3 + 4) \times (5 + (6 + 78) \times 9). \\
10655 &= 12^3 \times 4 + 5 + 6 \times 7 \times 89. \\
10656 &= (1 + 2) \times (3456 + 7 + 89). \\
10657 &= 1 + (23 + 4) \times 56 \times 7 + 8 \times 9. \\
10658 &= 1 \times 2 + (3^4 + 5 \times 6) \times (7 + 89). \\
10659 &= (1 + 234 + 56 \times 7) \times (8 + 9). \\
10660 &= 1^2 + 3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10661 &= 1 \times 2 + 3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10662 &= (12^3 + 45) \times 6 + 7 + 8 + 9. \\
10663 &= 1 + 2 \times 3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10664 &= 1 \times 2^3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10665 &= 12 \times (3 \times 45 \times 6 + 78) + 9. \\
10666 &= 1 \times 23 \times (456 + 7) + 8 + 9. \\
10667 &= 1 + 23 \times (456 + 7) + 8 + 9. \\
10668 &= 12 \times (3 \times 45 \times 6 + 7 + 8 \times 9). \\
10669 &= (1^2 \times 3 + 4 \times 56) \times (7 \times 8 - 9). \\
10670 &= (-1 + 23) \times (4 + 56 \times 7 + 89). \\
10671 &= 12 + 3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10672 &= (1^2 + 3) \times (4 + (5 \times 6 + 7) \times 8 \times 9). \\
10673 &= 1 \times (23 + 4) \times 56 \times 7 + 89. \\
10674 &= 1 + (23 + 4) \times 56 \times 7 + 89. \\
10675 &= (1^2 + 34) \times ((5 \times 6 + 7) \times 8 + 9). \\
10676 &= 1 - 2 + (3^4 + 56) \times 78 - 9. \\
10677 &= (1^2 \times 3^4 + 56) \times 78 - 9. \\
10678 &= -1 + 23 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10679 &= 1 \times 23 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10680 &= 12 \times (345 + 67 \times 8 + 9). \\
10681 &= 1 \times 23 \times (45 + 6 + 7) \times 8 + 9. \\
10682 &= 1 + 23 \times (45 + 6 + 7) \times 8 + 9. \\
10683 &= (1 + 2)^3 + 4 \times (5 \times 6 + 7) \times 8 \times 9. \\
10684 &= (1 + 2 \times 3^4) \times 5 \times (6 + 7) + 89. \\
10685 &= 1 \times 2 + (3 + 4 \times (5 \times 6 + 7) \times 8) \times 9. \\
10686 &= 1 + 2 + (3 + 4 \times (5 \times 6 + 7) \times 8) \times 9. \\
10687 &= -1 - 23 + 4 \times 5 \times 67 \times 8 - 9. \\
10688 &= -1 \times 23 + 4 \times 5 \times 67 \times 8 - 9. \\
10689 &= (1 + 23 \times (45 + 6 + 7)) \times 8 + 9. \\
10690 &= -1 - 2 + (3 \times 4 + 5) \times (6 + 7 \times 89). \\
10691 &= -1 + (2 \times 3)^4 \times 5 + 6 \times 78 \times 9. \\
10692 &= 12^3 \times 4 + 5 \times (6 + 78) \times 9. \\
10693 &= 1 + 2 \times 3 \times (4 \times 5 \times 6 + 78) \times 9. \\
10694 &= 1^2 + (3 \times 4 + 5) \times (6 + 7 \times 89). \\
10695 &= (1^2 \times 3^4 + 56) \times 78 + 9. \\
10696 &= 1^2 + (3^4 + 56) \times 78 + 9. \\
10697 &= 1 \times 2 + (3^4 + 56) \times 78 + 9. \\
10698 &= 1 + 2 + (3^4 + 56) \times 78 + 9. \\
10699 &= 12 \times 3^4 \times (5 + 6) + 7 \times (-8 + 9). \\
10700 &= 12 \times 3^4 \times (5 + 6) + 7 - 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10631 &= (9 + 8 + 7) \times (6 + 5 + 432) - 1. \\
10632 &= (9 + 8 + 7) \times (6 + 5 + 432) \times 1. \\
10633 &= 9 + 8 \times (7 + 654 + 3) \times 2 \times 1. \\
10634 &= 9 + 8 \times (7 + 654 + 3) \times 2 + 1. \\
10635 &= 9 + (8 + 7 \times 65 + 43) \times 21. \\
10636 &= 9 \times 8 + 76 \times ((5 + 4^3) \times 2 + 1). \\
10637 &= -9 \times 8 + 765 \times (4 + 3) \times 2 - 1. \\
10638 &= 9 \times (87 \times 6 + 5 + 4^3) \times 2 \times 1. \\
10639 &= 9 \times (87 \times 6 + 5 + 4^3) \times 2 + 1. \\
10640 &= (9 - 8) \times 76 \times 5 \times (4 + 3 + 21). \\
10641 &= (9 + 876) \times (5 + 4 + 3) + 21. \\
10642 &= (9 + 8 \times (7 + 654 + 3)) \times 2 \times 1. \\
10643 &= (9 + 8 \times (7 + 654 + 3)) \times 2 + 1. \\
10644 &= 9 \times (87 \times 6 + 5^4) + 321. \\
10645 &= 9 - 8 \times 7 + 6 \times 54 \times (32 + 1). \\
10646 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 - 3^2 - 1. \\
10647 &= (9 + 8 \times 7 \times 6 + 54 \times 3) \times 21. \\
10648 &= (9 \times (8 \times 7 + 6) + 5^4) \times 3^2 + 1. \\
10649 &= 9 + 8 \times (7 + (6 + 54 + 3) \times 21). \\
10650 &= (9 + 8 \times 7 + 6) \times (5 + (4 \times 3)^2 + 1). \\
10651 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 - 3 - 2 \times 1. \\
10652 &= (9 + 87 \times 6) \times 5 \times 4 + 32 \times 1. \\
10653 &= (9 + 87 \times 6) \times 5 \times 4 + 32 + 1. \\
10654 &= (9 \times (8 + 76) + 5) \times (4 + 3) \times 2 \times 1. \\
10655 &= (9 \times (8 + 76) + 5) \times (4 + 3) \times 2 + 1. \\
10656 &= (9 \times 8) \times (76 + 5 + 4 + 3 \times 21). \\
10657 &= 9 + 8 \times (7 \times 6 + 5 + 4 \times 321). \\
10658 &= 9 \times (8 + 7 \times (6 + 54 \times 3)) + 2 \times 1. \\
10659 &= (9 + (8 \times 7 + 6) \times 5 + 4) \times (32 + 1). \\
10660 &= (9 + 8 \times 7) \times (6 \times (5 + 4) \times 3 + 2 \times 1). \\
10661 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 3 + 2 \times 1. \\
10662 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 3 \times 2 \times 1. \\
10663 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 3 \times 2 + 1. \\
10664 &= 9 \times 8 + (7 + 6 \times 54) \times 32 \times 1. \\
10665 &= 9 \times 8 + (7 + 6 + 5 \times 4) \times 321. \\
10666 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 3^2 + 1. \\
10667 &= 9 + 8 + (7 + 6 + 5 + 4)^3 + 2 \times 1. \\
10668 &= ((9 + 8 + 76) \times 5 + 43) \times 21. \\
10669 &= (9 - 8 + 7 - 6 + 5 \times 4)^3 + 21. \\
10670 &= (98 - 76) \times (54 \times 3^2 - 1). \\
10671 &= -9 + 87 \times (6 \times 5 \times 4 + 3) - 21. \\
10672 &= (9 \times 8 \times (7 + 6 \times 5) + 4) \times (3 + 2 - 1). \\
10673 &= 9 + 8 \times (76 + (5^4 + 3) \times 2 + 1). \\
10674 &= 9 \times (8 + 7 \times 6 + 543) \times 2 \times 1. \\
10675 &= 9 \times (8 + 7 \times 6 + 543) \times 2 + 1. \\
10676 &= (9 + 8) \times (7 + (65 + 4) \times 3^2 \times 1). \\
10677 &= 9 + ((87 + 6) \times 5 + 43) \times 21. \\
10678 &= (9 + 876 + 5) \times 4 \times 3 - 2 \times 1. \\
10679 &= (9 + 8 + 7 \times 6) \times (5 \times 4 \times 3^2 + 1). \\
10680 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 3 + 21. \\
10681 &= (9 \times 8 \times 7 + 6 \times 5) \times 4 \times (3 + 2) + 1. \\
10682 &= 98 \times (7 + 65 + 4 + 32 + 1). \\
10683 &= (9 + 876 + 5) \times 4 \times 3 + 2 + 1. \\
10684 &= 987 \times 6 + (5 + 4^3)^2 + 1. \\
10685 &= (98 + 76 \times (5 + 4^3)) \times 2 + 1. \\
10686 &= 9 + 8 + (7 + 6 + 5 + 4)^3 + 21. \\
10687 &= 9 + (8 \times (7 \times 6 + 5^4) + 3) \times 2 \times 1. \\
10688 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 32 \times 1. \\
10689 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 32 + 1. \\
10690 &= 98 + (7 + 6 \times 54) \times 32 \times 1. \\
10691 &= 98 \times (7 + 6) \times 5 + 4321. \\
10692 &= 9 + (8 + 7 \times 6 \times 5) \times (4 + 3)^2 + 1. \\
10693 &= (9 + 8) \times (7 \times (6 + 5) \times 4 + 321). \\
10694 &= -9 - 8 + 765 \times (4 + 3) \times 2 + 1. \\
10695 &= (9 + 8 + 76) \times ((54 + 3) \times 2 + 1). \\
10696 &= (9 + 8 \times (7 \times 6 + 5^4) + 3) \times 2 \times 1. \\
10697 &= 98 \times 76 + (54 + 3)^2 \times 1. \\
10698 &= 98 \times 76 + (54 + 3)^2 + 1. \\
10699 &= ((9 + (8 + 7) \times 6) \times 54 + 3) \times 2 + 1. \\
10700 &= 9 - 8 + 7 + 6 \times 54 \times (32 + 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
10701 &= (1 + 23 \times 4 + 5 \times 6) \times (78 + 9). \\
10702 &= 1^2 + (3 + 4 \times 5 \times 6) \times (78 + 9). \\
10703 &= (12^3 + 45) \times 6 + 7 \times 8 + 9. \\
10704 &= 1 + 2 + (3 + 4 \times 5 \times 6) \times (78 + 9). \\
10705 &= 12 + (3 \times 4 + 5) \times (6 + 7 \times 89). \\
10706 &= 1 - 2 \times 3 + 4 \times 5 \times 67 \times 8 - 9. \\
10707 &= 12 + (3^4 + 56) \times 78 + 9. \\
10708 &= 1 \times 2 \times (3^4 \times 5 \times (6 + 7) + 89). \\
10709 &= (1 + 2)^3 \times (4 + 56 \times 7) + 8 + 9. \\
10710 &= (12 + 345) \times (6 + 7 + 8 + 9). \\
10711 &= 1^2 + (34 + 56) \times 7 \times (8 + 9). \\
10712 &= 1 \times 2 + (34 + 56) \times 7 \times (8 + 9). \\
10713 &= 12 \times (34 + (5 + 6) \times 78) + 9. \\
10714 &= -12 - 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10715 &= -1 + 2 + 3 + 4 \times 5 \times 67 \times 8 - 9. \\
10716 &= 12 \times 3^4 \times (5 + 6) + 7 + 8 + 9. \\
10717 &= (12^3 + 45) \times 6 + 7 + 8 \times 9. \\
10718 &= 123 \times (45 + 6 \times 7) + 8 + 9. \\
10719 &= (1 \times 234 \times 5 + 6 + 7 + 8) \times 9. \\
10720 &= 1 + ((234 \times 5 + 6 + 7) + 8) \times 9. \\
10721 &= 1 \times 23 \times (456 + 7) + 8 \times 9. \\
10722 &= 1 + 23 \times (456 + 7) + 8 \times 9. \\
10723 &= 1^2 + 3 \times (4 + 5 \times 6 \times 7 \times (8 + 9)). \\
10724 &= 1 \times 2 + 3 \times (4 + 5 \times 6 \times 7 \times (8 + 9)). \\
10725 &= (12^3 + 45) \times 6 + 78 + 9. \\
10726 &= 12 + 3 + 4 \times 5 \times 67 \times 8 - 9. \\
10727 &= (1^2 + (34 + 56) \times 7) \times (8 + 9). \\
10728 &= (1^2 + 3 \times 45 + 6 + 7) \times 8 \times 9. \\
10729 &= 1^{23} \times 4 \times 5 \times 67 \times 8 + 9. \\
10730 &= 1^{23} + 4 \times 5 \times 67 \times 8 + 9. \\
10731 &= (1 + 2) \times (3 + 4 + 5 \times 6 \times 7 \times (8 + 9)). \\
10732 &= 1^2 \times 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10733 &= 1^2 + 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10734 &= 1 \times 2 + 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10735 &= 1 + 2 + 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10736 &= 1 + 2 \times 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10737 &= 1 \times 2^3 + 4 \times 5 \times 67 \times 8 + 9. \\
10738 &= 1 + 2^3 + 4 \times 5 \times 67 \times 8 + 9. \\
10739 &= 1 + 23 \times (456 + 7) + 89. \\
10740 &= -1 \times 2^{(3 \times 4)} + 5^6 - 789. \\
10741 &= 1 \times 23 \times ((4 + 5) \times 6 \times 7 + 89). \\
10742 &= 1 + 23 \times ((4 + 5) \times 6 \times 7 + 89). \\
10743 &= -12 + (3 + 4 \times 5) \times 6 \times 78 - 9. \\
10744 &= 12 + 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10745 &= 1 + 2 \times (3 \times 4 + 56) \times (7 + 8 \times 9). \\
10746 &= (1 + 2) \times (3 \times 4^5 + 6 + 7 \times 8 \times 9). \\
10747 &= 12 \times 3 + 4 \times 5 \times 67 \times 8 - 9. \\
10748 &= -1 \times 2^3 + 4 \times (5 \times 67 \times 8 + 9). \\
10749 &= 1 - 2^3 + 4 \times (5 \times 67 \times 8 + 9). \\
10750 &= 1^2 \times (3^4 + 5) \times (6 + 7 \times (8 + 9)). \\
10751 &= 1^2 + (3^4 + 5) \times (6 + 7 \times (8 + 9)). \\
10752 &= 1 \times 23 + 4 \times 5 \times 67 \times 8 + 9. \\
10753 &= 1 + 23 + 4 \times 5 \times 67 \times 8 + 9. \\
10754 &= 1^2 + (3 + 4 \times 5 \times 67) \times 8 + 9. \\
10755 &= (12 + 3) \times (4 + 5 + 6 + 78 \times 9). \\
10756 &= (1 + 2)^3 + 4 \times 5 \times 67 \times 8 + 9. \\
10757 &= 12 \times 3^4 \times (5 + 6) + 7 \times 8 + 9. \\
10758 &= 1 \times 2 \times (3 + 4 \times 56 \times (7 + 8 + 9)). \\
10759 &= 1 + 2 \times (3 + 4 \times 56 \times (7 + 8 + 9)). \\
10760 &= 1^2 + 3 + 4 \times (5 \times 67 \times 8 + 9). \\
10761 &= (1 \times 23 + 4 + 5) \times 6 \times 7 \times 8 + 9. \\
10762 &= 1 + (23 + 4 + 5) \times 6 \times 7 \times 8 + 9. \\
10763 &= 1 + 2 \times 3 + 4 \times (5 \times 67 \times 8 + 9). \\
10764 &= 12 \times (3 \times 45 \times 6 + 78 + 9). \\
10765 &= 12 \times 3 + 4 \times 5 \times 67 \times 8 + 9. \\
10766 &= 1 \times 2 \times (3 + 4 + 56 \times (7 + 89)). \\
10767 &= 1 + 2 \times (3 + 4 + 56 \times (7 + 89)). \\
10768 &= (1 + 2^3)^4 - 5 + 6 \times 78 \times 9. \\
10769 &= (1 + 2^3 + 45 + 67) \times 89. \\
10770 &= 1 + (2 \times 3 \times (4 + 5) + 67) \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10701 &= (9 + 876 + 5) \times 4 \times 3 + 21. \\
10702 &= 9 \times (8 \times (7 + 6 \times 5) \times 4 + 3 + 2) + 1. \\
10703 &= 98 \times (7 + 6 \times (5 + 4 \times 3)) + 21. \\
10704 &= 9 + (87 + 6) \times ((54 + 3) \times 2 + 1). \\
10705 &= 9 + (8 + 76 \times 5 \times 4) \times (3 \times 2 + 1). \\
10706 &= 98 + (76 + (5 + 4) \times 3)^2 - 1. \\
10707 &= 98 + (76 + (5 + 4) \times 3)^2 \times 1. \\
10708 &= 98 + (76 + (5 + 4) \times 3)^2 + 1. \\
10709 &= 9 + 8 + (76 + 5) \times 4 \times (32 + 1). \\
10710 &= (98 + 7) \times (65 + 4 + 32 + 1). \\
10711 &= (9 + 8) \times 7 \times 6 \times (5 + 4 + 3 \times 2) + 1. \\
10712 &= 9 \times 8 + 76 \times 5 \times (4 + 3 + 21). \\
10713 &= 9 + 87 \times (6 \times 5 \times 4 + 3) + 2 + 1. \\
10714 &= 987 \times (6 + 5) - (4 \times 3)^2 + 1. \\
10715 &= -9 + 8 + 76 \times (54 \times 3 - 21). \\
10716 &= 9 \times 87 + (6 + 5) \times 43 \times 21. \\
10717 &= (9 \times (8 + 7) + 6) \times (-5 + 43) \times 2 + 1. \\
10718 &= (9 - 8 \times 7) \times 6 \times (5 - 43) + 2 \times 1. \\
10719 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 3 \times 21. \\
10720 &= (9 + 87 \times 6 + 5) \times 4 \times (3 + 2) \times 1. \\
10721 &= (9 + 87 \times 6 + 5) \times 4 \times (3 + 2) + 1. \\
10722 &= (987 + 6 \times (5 + 4)^3) \times 2 \times 1. \\
10723 &= (987 + 6 \times (5 + 4)^3) \times 2 + 1. \\
10724 &= ((9 + 8) \times 7 \times 6 \times 5 + 4) \times 3 + 2 \times 1. \\
10725 &= (9 + 8 \times 7 + 65 \times 4) \times (32 + 1). \\
10726 &= (9 + 8 \times (7 + 65 \times 4)) \times (3 + 2) + 1. \\
10727 &= 9 + 8 + 765 \times (4 \times 3 + 2) \times 1. \\
10728 &= 9 + 8 + 765 \times (4 + 3) \times 2 + 1. \\
10729 &= (9 + 8 \times (7 \times 6 + 5^4 + 3)) \times 2 \times 1. \\
10730 &= 9 + 8 \times (7 \times 6 + 5^4 + 3) \times 2 + 1. \\
10731 &= 9 + 87 \times (6 \times 5 \times 4 + 3) + 21. \\
10732 &= 9 - 8 + 7 \times (6 \times 5 + 43) \times 21. \\
10733 &= 9 + 8 + 76 \times (54 \times 3 - 21). \\
10734 &= (9 \times 87 + 65 \times 43) \times (2 + 1). \\
10735 &= 9 + (8 + 765 \times (4 + 3)) \times 2 \times 1. \\
10736 &= 9 + (8 + 765 \times (4 + 3)) \times 2 + 1. \\
10737 &= 987 + 6 \times 5 \times (4 + 321). \\
10738 &= 98 + 76 \times 5 \times (4 + 3 + 21). \\
10739 &= (9 + 8 \times (7 \times 6 + 5^4 + 3)) \times 2 + 1. \\
10740 &= 9 + (8 + (7 + 6) \times 5) \times (4 + 3) \times 21. \\
10741 &= 9 \times 8 + (7 + 6 + 5 + 4)^3 + 21. \\
10742 &= -9 + (8 + 7 \times 6) \times 5 \times 43 + 2 - 1. \\
10743 &= ((9 + 8) \times 7 \times 6 \times 5 + 4) \times 3 + 21. \\
10744 &= (9 + 8) \times (76 \times 5 + 4 \times 3 \times 21). \\
10745 &= (9 + 8 + 765 \times (4 + 3)) \times 2 + 1. \\
10746 &= 9 \times (8 \times 7 + 6 \times (54 + 3)) \times (2 + 1). \\
10747 &= -9 \times 8 \times 7 + 6 \times 5^4 \times 3 + 2 - 1. \\
10748 &= 9 + 8 + 7 \times (6 \times 5 + 43) \times 21. \\
10749 &= 98 + (7 + 6 + 5 + 4)^3 + 2 + 1. \\
10750 &= ((9 + 8) \times 7 + 6) \times (54 + 32 \times 1). \\
10751 &= ((9 + 8) \times 7 + 6) \times (54 + 32) + 1. \\
10752 &= (98 + 7 \times (6 \times 5 + 4)) \times 32 \times 1. \\
10753 &= (98 + 7 \times (6 \times 5 + 4)) \times 32 + 1. \\
10754 &= 9 - 8 - 7 \times (6 - 54) \times 32 + 1. \\
10755 &= -9 \times 8 \times 7 + (6 \times 5^4 + 3) \times (2 + 1). \\
10756 &= 9 + (8 + 7 \times 6) \times 5 \times 43 - 2 - 1. \\
10757 &= 9 + 8 \times 7 + 6 \times 54 \times (32 + 1). \\
10758 &= (98 + (7 + 6) \times 5) \times (4^3 + 2 \times 1). \\
10759 &= (9 + 8 + 76 \times 5 \times 4) \times (3 \times 2 + 1). \\
10760 &= 9 + (8 + 7 \times 6) \times 5 \times 43 + 2 - 1. \\
10761 &= 987 + 6 \times 543 \times (2 + 1). \\
10762 &= 9 + (8 + 7 \times 6) \times 5 \times 43 + 2 + 1. \\
10763 &= (9 - 8 \times 7) \times (-65 \times 4 + 32 - 1). \\
10764 &= 9 + (8 + 7) \times (654 + 3 \times 21). \\
10765 &= 9 \times (8 + (7 + 6 + 5) \times (4^3 + 2)) + 1. \\
10766 &= 9 \times (876 + 5 \times 4^3) + 2 \times 1. \\
10767 &= (98 + 7 + 6) \times ((5 + 43) \times 2 + 1). \\
10768 &= ((9 + 8) \times 76 + 54) \times (3^2 - 1). \\
10769 &= 9 + 8 - 7 \times (6 - 54) \times 32 \times 1. \\
10770 &= 9 + 87 \times 6 \times 5 \times 4 + 321.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10771 &= 12 + 3 + 4 \times (5 \times 67 \times 8 + 9). \\
10772 &= (1^2 + 3) \times (4 + 5 \times 67 \times 8 + 9). \\
10773 &= 123 \times (45 + 6 \times 7) + 8 \times 9. \\
10774 &= 1^2 + (3 + 4 \times 5) \times 6 \times 78 + 9. \\
10775 &= 1 \times 2 + (3 + 4 \times 5) \times 6 \times 78 + 9. \\
10776 &= 1 + 2 + (3 + 4 \times 5) \times 6 \times 78 + 9. \\
10777 &= (1 \times 2 \times 3 + 4 \times 5 \times 67) \times 8 + 9. \\
10778 &= (1 + 2^3)^4 + 5 + 6 \times 78 \times 9. \\
10779 &= 12 \times 3^4 \times (5 + 6) + 78 + 9. \\
10780 &= 1 + 23 + 4 \times (5 \times 67 \times 8 + 9). \\
10781 &= (1 + 2)^3 \times (4 + 56 \times 7) + 89. \\
10782 &= (1 \times (2 + 3) \times 4 \times 56 + 78) \times 9. \\
10783 &= (1 + 2)^3 + 4 \times (5 \times 67 \times 8 + 9). \\
10784 &= 1 \times 2^3 \times (4 + 56 \times (7 + 8 + 9)). \\
10785 &= 12 + (3 + 4 \times 5) \times 6 \times 78 + 9. \\
10786 &= -1 \times 23 \times (4 + 5 \times (6 + 78 + 9)). \\
10787 &= 1 \times 23 \times (4 + 5 \times (6 + 78 + 9)). \\
10788 &= (1 \times 2 \times 34 + 56) \times (78 + 9). \\
10789 &= 1 + (2 \times 34 + 56) \times (78 + 9). \\
10790 &= 123 \times (45 + 6 \times 7) + 89. \\
10791 &= (1 + (2 + 3) \times 4 \times 56 + 78) \times 9. \\
10792 &= 1 \times 2^3 \times 4 \times 5 \times 67 + 8 \times 9. \\
10793 &= 1 + 2^3 \times 4 \times 5 \times 67 + 8 \times 9. \\
10794 &= 1 + (2^3 + 4 \times 5 \times 67) \times 8 + 9. \\
10795 &= (1 \times 2 \times 34 + 567) \times (8 + 9). \\
10796 &= 1 + (2 + 3) \times (4 \times 5 \times 6 + 7) \times (8 + 9). \\
10797 &= 12 \times (3 + (45 + 67) \times 8) + 9. \\
10798 &= -1 \times 2 + 3 \times (456 - 7 \times 8) \times 9. \\
10799 &= (1 \times 2 \times 3 \times 4 \times 56 + 7) \times 8 - 9. \\
10800 &= (1 \times 23 + 4 \times 5 \times 6 + 7) \times 8 \times 9. \\
10801 &= 1 + 2 \times (3 \times 4 + 56 + 7) \times 8 \times 9. \\
10802 &= 1 \times 2 + 3 \times (456 - 7 \times 8) \times 9. \\
10803 &= 1 + 2 + 3 \times (456 - 7 \times 8) \times 9. \\
10804 &= (1 + 2^3 \times 4 \times 5) \times 67 + 8 + 9. \\
10805 &= 1 \times 2 + 3 \times ((456 - 7) \times 8 + 9). \\
10806 &= (1 + 2)^{(3+4)} \times 5 + 6 - (7 + 8) \times 9. \\
10807 &= -12^3 + 4 \times 56 \times 7 \times 8 - 9. \\
10808 &= -1 + 2^3 \times 4 \times 5 \times 67 + 89. \\
10809 &= 1 \times 2^3 \times 4 \times 5 \times 67 + 89. \\
10810 &= 1 + 2^3 \times 4 \times 5 \times 67 + 89. \\
10811 &= 12 \times 3^4 \times (5 + 6) + 7 \times (8 + 9). \\
10812 &= (1 + 2 \times 34 + 567) \times (8 + 9). \\
10813 &= 1^2 + 3 \times (4 + (56 \times 7 + 8) \times 9). \\
10814 &= 1 \times 2 + 3 \times (4 + (56 \times 7 + 8) \times 9). \\
10815 &= (1 + 2) \times (3 + 4) \times (5 + 6 + 7 \times 8 \times 9). \\
10816 &= 1 + (2 + 3) \times (4^5 + 67 \times (8 + 9)). \\
10817 &= (1 \times 2 \times 3 \times 4 \times 56 + 7) \times 8 + 9. \\
10818 &= (1 + 2^3)^4 + (5 + 6 \times 78) \times 9. \\
10819 &= 1 + 2 \times (3^4 + 5 \times (6 + 7) \times 8) \times 9. \\
10820 &= 1 \times 2 \times (34 + 56 \times (7 + 89)). \\
10821 &= 1 + 2 \times (34 + 56 \times (7 + 89)). \\
10822 &= (1 + 2 \times 3) \times (4^5 + 6 \times (78 + 9)). \\
10823 &= 12 \times 3^4 \times 5 + 67 \times 89. \\
10824 &= 12 + 3 \times (4 + (56 \times 7 + 8) \times 9). \\
10825 &= (1 + 2 \times 3 \times 4 \times 56 + 7) \times 8 + 9. \\
10826 &= 1 + 2 + (3^4 + 56) \times (7 + 8 \times 9). \\
10827 &= 12 \times 3^4 \times (5 + 6) + (7 + 8) \times 9. \\
10828 &= 1 - 2^{(3 \times 4)} + 5^6 - 78 \times 9. \\
10829 &= (1^2 + 34 + 56) \times 7 \times (8 + 9). \\
10830 &= 1 + (2 + 3) \times 4 \times (5 + 67 \times 8) + 9. \\
10831 &= (12 + 3 + 4 \times 5 \times 67) \times 8 - 9. \\
10832 &= -12 + (3 + 4)^5 - 67 \times 89. \\
10833 &= (1 + 2) \times (3 \times 4^5 + 67 \times 8) + 9. \\
10834 &= 123 + 4 \times 5 \times 67 \times 8 - 9. \\
10835 &= 12 + (3^4 + 56) \times (7 + 8 \times 9). \\
10836 &= 12 \times (345 + (6 + 7 \times 8) \times 9). \\
10837 &= 1 + 2 \times (3 + 4) \times (5 \times 6 + 7 \times 8) \times 9. \\
10838 &= -1 + 2^{(3-4+5)} \times 678 - 9. \\
10839 &= (1 + 2 \times 3 + 4 + 5) \times 678 - 9. \\
10840 &= (1 + 2)^{(3+4)} \times 5 - (6 + 7) \times 8 + 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10771 &= 9 \times 8 + 7 + 6 \times 54 \times (32 + 1). \\
10772 &= 987 \times (6 + 5) - 4^3 - 21. \\
10773 &= 9 \times 876 + (5 + 4) \times 321. \\
10774 &= 9876 - 5 + 43 \times 21. \\
10775 &= 9 \times (8 + 7 + 6) \times (54 + 3) + 2 \times 1. \\
10776 &= 9 \times (8 + 7 + 6) \times (54 + 3) + 2 + 1. \\
10777 &= -9 - 8 + 7 \times 6 \times (5 + 4 \times 3 \times 21). \\
10778 &= (9 + 8) \times (7 \times 6 + 5^4 - 32 - 1). \\
10779 &= -9 \times (8 + 7) + (6 \times 5 + 4) \times 321. \\
10780 &= 9 + (8 + 7 \times 6) \times 5 \times 43 + 21. \\
10781 &= (9 + 8) \times 76 \times 5 + 4321. \\
10782 &= 9 \times 8 + 765 \times (4 + 3) \times 2 \times 1. \\
10783 &= 9 \times 8 + 765 \times (4 + 3) \times 2 + 1. \\
10784 &= 9876 + 5 + 43 \times 21. \\
10785 &= ((9 + 8) \times 7 \times 6 + 5) \times (4 \times 3 + 2 + 1). \\
10786 &= -9 - 8 \times 76 + 543 \times 21. \\
10787 &= (9 + 87 + 65) \times (4 + 3 \times 21). \\
10788 &= 9 + 87 + 6 \times 54 \times (32 + 1). \\
10789 &= (98 + 76) \times (5 \times 4 \times 3 + 2) + 1. \\
10790 &= 98 + (76 + 5) \times 4 \times (32 + 1). \\
10791 &= 9 \times (876 + 5 \times 4^3 + 2 + 1). \\
10792 &= (9 + 8 \times 7 + 6) \times (5 + (4 + 3) \times 21). \\
10793 &= 987 \times (6 + 5) - 43 - 21. \\
10794 &= 9 \times (8 + 7 + 6) \times (54 + 3) + 21. \\
10795 &= (9 + 8) \times (7 + 6 \times 5 \times 4) \times (3 + 2) \times 1. \\
10796 &= (9 + 8) \times (7 + 6 \times 5 \times 4) \times (3 + 2) + 1. \\
10797 &= 98 + 7 + 6 \times 54 \times (32 + 1). \\
10798 &= 987 \times (6 + 5) + 4 - 3 \times 21. \\
10799 &= 9 \times 8 \times 7 \times 6 \times 5 - 4321. \\
10800 &= 9 \times (876 + 54 \times 3 \times 2 \times 1). \\
10801 &= 9 \times (8 + 7 \times 6) \times (5 + 4 + 3) \times 2 + 1. \\
10802 &= (9 \times (8 - (7 - 6)^5)^4 - 3) / 2 - 1. \\
10803 &= 9 \times 8 + 7 \times (6 \times 5 + 43) \times 21. \\
10804 &= 9 - 8 \times 76 + 543 \times 21. \\
10805 &= (9 \times 8 \times 76 - 5 - 4^3) \times 2 - 1. \\
10806 &= (9 \times 8 \times 76 - 5 - 4^3) \times 2 \times 1. \\
10807 &= 98 + 765 \times (4 + 3) \times 2 - 1. \\
10808 &= 98 + 765 \times (4 + 3) \times 2 \times 1. \\
10809 &= 98 + 765 \times (4 + 3) \times 2 + 1. \\
10810 &= 9 + (8 + 7) \times 6 \times 5 \times 4 \times 3 \times 2 + 1. \\
10811 &= 9 + 8 + 7 \times 6 \times (5 + 4 \times 3 \times 21). \\
10812 &= (9 + 8) \times ((7 + 6 \times 5 \times 4) \times (3 + 2) + 1). \\
10813 &= 987 \times (6 + 5) - 43 - 2 + 1. \\
10814 &= 987 \times (6 + 5) - 4^3 + 21. \\
10815 &= (9 + 8 + 7 \times 65 + 43) \times 21. \\
10816 &= 987 \times (6 + 5) - 43 + 2 \times 1. \\
10817 &= 9 + 8 \times 7 \times (65 + 4^3 \times 2 \times 1). \\
10818 &= 9 + 8 \times 7 \times (65 + 4^3 \times 2) + 1. \\
10819 &= (9 + (8 + 7) \times 6 \times 5 \times 4 \times 3) \times 2 + 1. \\
10820 &= 987 \times (6 + 5) - 4 - 32 - 1. \\
10821 &= -98 + 7 \times 65 \times 4 \times 3 \times 2 - 1. \\
10822 &= 9876 + 5^4 + 321. \\
10823 &= -98 + 7 \times 65 \times 4 \times 3 \times 2 + 1. \\
10824 &= (9 + 8 + (7 + 6) \times 5) \times 4 \times (32 + 1). \\
10825 &= 9 + 8 \times (7 \times (65 + 4 \times 32) + 1). \\
10826 &= 987 \times (6 + 5) - 4 - 3^{(2+1)}. \\
10827 &= 9 \times (8 + 7) + 6 \times 54 \times (32 + 1). \\
10828 &= 987 \times (6 + 5) + 4 - 32 - 1. \\
10829 &= 98 + 7 \times (6 \times 5 + 43) \times 21. \\
10830 &= 987 \times (6 + 5) + 4 - 32 + 1. \\
10831 &= 9 + (8 + 765) \times (4 + 3) \times 2 \times 1. \\
10832 &= 9 + (8 + 765) \times (4 + 3) \times 2 + 1. \\
10833 &= 9 + 8 \times (7 + 6 \times 5 + 4) \times (32 + 1). \\
10834 &= 987 \times (6 + 5) - 4 \times 3 \times 2 + 1. \\
10835 &= 987 \times 6 + (5 + 4 \times 3)^{(2+1)}. \\
10836 &= 98 \times 7 \times 6 + 5 \times 4^3 \times 21. \\
10837 &= (9 + 87 + 6 \times 5) \times 43 \times 2 + 1. \\
10838 &= 987 \times (6 + 5) - 4 \times (3 + 2) + 1. \\
10839 &= ((9 + 8) \times 7 \times 6 \times 5 + 43) \times (2 + 1). \\
10840 &= (9 + (8 + 765) \times (4 + 3)) \times 2 \times 1.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10841 &= 1 + 2^3 \times (4 \times (5 + 6 \times 7 \times 8) - 9). \\
10842 &= 1 \times 23 \times (456 + 7 + 8) + 9. \\
10843 &= 1 + 23 \times (456 + 7 + 8) + 9. \\
10844 &= 1^2 \times (3 + 4)^5 - 67 \times 89. \\
10845 &= (12 + 3 + 4) \times 567 + 8 \times 9. \\
10846 &= 1^2 \times 34 \times (5 \times (6 + 7 \times 8) + 9). \\
10847 &= 1^2 + 34 \times (5 \times (6 + 7 \times 8) + 9). \\
10848 &= 1 \times (2 + 3^4 + 5 \times 6) \times (7 + 89). \\
10849 &= (12 + 3 + 4 \times 5 \times 67) \times 8 + 9. \\
10850 &= ((1 + 2)^3 + 4) \times (5 + 6 \times 7 \times 8 + 9). \\
10851 &= (1 \times 2 + 3^4 + 56) \times 78 + 9. \\
10852 &= 123 + 4 \times 5 \times 67 \times 8 + 9. \\
10853 &= (1 + 2) \times (3^4 + 5) \times 6 \times 7 + 8 + 9. \\
10854 &= (12 + 3) \times (45 + 678) + 9. \\
10855 &= 1 + 2 \times (3 \times 45 + 6 \times 78) \times 9. \\
10856 &= 1 \times 2^3 \times (4 \times 5 \times 67 + 8 + 9). \\
10857 &= (1 + 2 \times 3 + 4 + 5) \times 678 + 9. \\
10858 &= 1 \times 2 \times (3 + 45 + 6 \times 7) \times 89. \\
10859 &= (1 + 2^3 \times 4 \times 5) \times 67 + 8 \times 9. \\
10860 &= (12 + 3) \times (4 + 5 \times 6 \times (7 + 8 + 9)). \\
10861 &= -1 + (23 - 4) \times 567 + 89. \\
10862 &= (12 + 3 + 4) \times 567 + 89. \\
10863 &= 1^2 \times 3^4 \times (56 + 78) + 9. \\
10864 &= 1^2 + 3^4 \times (56 + 78) + 9. \\
10865 &= 1 \times 2 + 3^4 \times (56 + 78) + 9. \\
10866 &= 1 + 2 + 3^4 \times (56 + 78) + 9. \\
10867 &= (1 + 2)^{(3+4)} \times 5 - 67 + 8 - 9. \\
10868 &= (1 + 2)^{(3+4)} \times 5 + 67 \times (8 - 9). \\
10869 &= (1 + 2) \times ((3^4 + 5) \times 6 \times 7 + 8) + 9. \\
10870 &= 12 + (3 \times 45 - 6 - 7) \times 89. \\
10871 &= (1 + (2 \times 3)^4 + 56 + 7) \times 8 - 9. \\
10872 &= (1 + 2) \times 3456 + 7 \times 8 \times 9. \\
10873 &= 1234 + 567 \times (8 + 9). \\
10874 &= 1 + 2 \times (3 \times 4 \times 56 + 7) \times 8 + 9. \\
10875 &= 12 + 3^4 \times (56 + 78) + 9. \\
10876 &= (1 + 2^3 \times 4 \times 5) \times 67 + 89. \\
10877 &= -1 + 2 \times 3 \times 4^5 + 6 \times 789. \\
10878 &= 1 \times 2 \times 3 \times 4^5 + 6 \times 789. \\
10879 &= 123 + 4 \times (5 \times 67 \times 8 + 9). \\
10880 &= (1^2 + 3) \times 4 \times (5 + (67 + 8) \times 9). \\
10881 &= 12 \times 3 \times (4 \times 56 + 78) + 9. \\
10882 &= 1 \times 2 \times ((3 \times 4 \times 56 + 7) \times 8 + 9). \\
10883 &= 1 + 2 \times ((3 \times 4 \times 56 + 7) \times 8 + 9). \\
10884 &= 12 \times (3 + 4 \times (5 + (6 + 7) \times (8 + 9))). \\
10885 &= (1^2 + 3) \times 4^5 + 6789. \\
10886 &= 1 + 2^{(3+4+5)} + 6789. \\
10887 &= 12^3 \times 4 + 5 \times (6 + 789). \\
10888 &= (1 + 2)^{(3+4)} \times 5 + 6 \times 7 - 89. \\
10889 &= (1 + (2 \times 3)^4 + 56 + 7) \times 8 + 9. \\
10890 &= (1 \times 2^3)^4 + 5 + 6789. \\
10891 &= 1 + 2^{(3 \times 4)} + 5 + 6789. \\
10892 &= (1 + 2)^{(3+4)} \times 5 - 6 \times 7 + 8 - 9. \\
10893 &= -1 - 2 \times 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10894 &= (1 + 2)^{(3+4)} \times 5 - 6 \times 7 - 8 + 9. \\
10895 &= (1 \times 23 + 4 \times 5 \times 67) \times 8 - 9. \\
10896 &= 1 \times 2 \times (3 + 4 \times 56) \times (7 + 8 + 9). \\
10897 &= 1 + 2 \times (3 + 4 \times 56) \times (7 + 8 + 9). \\
10898 &= 1 + ((2 \times 3)^4 + 5 \times (6 + 7)) \times 8 + 9. \\
10899 &= (12 \times 3 \times 4 \times 5 + 6) \times (7 + 8) + 9. \\
10900 &= 12^3 \times 4 \times 5 \times (67 \times 8 + 9). \\
10901 &= 12^3 + 4 \times 5 \times (67 \times 8 + 9). \\
10902 &= (123 + 4 + 5 + 6) \times (7 + 8 \times 9). \\
10903 &= 1^2 \times 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10904 &= 1234 \times 5 + 6 \times 789. \\
10905 &= 1 \times 2 + 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10906 &= 1 \times 2 \times 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10907 &= 1 + 2 \times 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10908 &= 1 \times 2^3 + 4 \times 5 \times (67 \times 8 + 9). \\
10909 &= 1 + 2^3 + 4 \times 5 \times (67 \times 8 + 9). \\
10910 &= 1 \times 2 + 3 \times (4 + 56 \times 7 + 8) \times 9.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10841 &= (9 + (8 + 765) \times (4 + 3)) \times 2 + 1. \\
10842 &= 987 \times (6 + 5) - 4 \times 3 - 2 - 1. \\
10843 &= 987 \times (6 + 5) + 4 + 3 - 21. \\
10844 &= 987 \times (6 + 5) - 4 \times 3 - 2 + 1. \\
10845 &= 9 \times (8 + 765 + 432 \times 1). \\
10846 &= 9 \times (8 + 765 + 432) + 1. \\
10847 &= -9 \times 8 + 7 \times 65 \times 4 \times 3 \times 2 - 1. \\
10848 &= (9 \times 8 + 7 + 65 \times 4) \times 32 \times 1. \\
10849 &= (9 \times 8 + 7 + 65 \times 4) \times 32 + 1. \\
10850 &= 98 \times 76 + 54 \times 3 \times 21. \\
10851 &= (9 + 8) \times (7 + 6 + 5^4) + 3 + 2 \times 1. \\
10852 &= (9 + 8) \times (7 + 6 + 5^4) + 3 \times 2 \times 1. \\
10853 &= (9 + 8) \times (7 + 6 + 5^4) + 3 \times 2 + 1. \\
10854 &= 9 \times (876 + 5 + 4 + 321). \\
10855 &= (9 \times 87 \times 6 + (5 + 4)^3) \times 2 + 1. \\
10856 &= (9 + 8) \times (7 + 6 + 5^4) + 3^2 + 1. \\
10857 &= 9 + 8 \times (7 + 65 + 4 \times 321). \\
10858 &= 9 + (8 + 7 + 6 \times 54) \times 32 + 1. \\
10859 &= 9 + (8 + 7 \times 6) \times (5 \times 43 + 2 \times 1). \\
10860 &= 9 + (8 + 7 \times 6) \times (5 \times 43 + 2) + 1. \\
10861 &= 987 \times (6 + 5) + 4 + 3 - 2 - 1. \\
10862 &= 987 \times (6 + 5) + 4 + 3 - 2 \times 1. \\
10863 &= 9 \times (876 + 5 \times (4^3 + 2) + 1). \\
10864 &= (9 - 8 + 7 - 6) \times 5432 \times 1. \\
10865 &= 9 + 8 \times (7 + 6 \times 5 \times (43 + 2) \times 1). \\
10866 &= 9 \times 8 + 7 \times 6 \times (5 + 4 \times 3 \times 21). \\
10867 &= 987 \times (6 + 5) + 4 + 3 + 2 + 1. \\
10868 &= 987 \times (6 + 5) + 4 + 3 \times 2 + 1. \\
10869 &= 987 \times (6 + 5) + 4 + 3^2 - 1. \\
10870 &= 987 \times (6 + 5) + 4 + 3^2 \times 1. \\
10871 &= 987 \times (6 + 5) + 4 + 3^2 + 1. \\
10872 &= 9 \times 8 \times 7 + 6 \times 54 \times 32 \times 1. \\
10873 &= 9 \times 8 \times 7 + 6 \times 54 \times 32 + 1. \\
10874 &= 9 \times 8 \times ((7 + 6 \times 5) \times 4 + 3) + 2 \times 1. \\
10875 &= ((9 + 8) \times 7 + 6) \times (54 + 32 + 1). \\
10876 &= 987 \times (6 + 5) + 4 \times (3 + 2) - 1. \\
10877 &= 987 \times (6 + 5) + 4 \times (3 + 2) \times 1. \\
10878 &= 98 \times (7 \times 6 + 5 + 43 + 21). \\
10879 &= (9 + 8) \times (7 + 6 + 5^4) + 32 + 1. \\
10880 &= (98 + 7 + 65) \times (43 + 21). \\
10881 &= 987 \times (6 + 5) + 4 \times 3 \times 2 \times 1. \\
10882 &= (98 + 7 + 65) \times 4^3 + 2 \times 1. \\
10883 &= (98 + 7 + 65) \times 4^3 + 2 + 1. \\
10884 &= 9876 + (5 + 43) \times 21. \\
10885 &= 987 \times (6 + 5) + 4 + 3 + 21. \\
10886 &= 987 \times (6 + 5) - 4 + 32 + 1. \\
10887 &= (-9 - 8 + 7 \times 65 \times 4 \times 3) \times 2 + 1. \\
10888 &= 987 \times (6 + 5) + 4 + 3^{(2+1)}. \\
10889 &= 9 + (8 + 7 \times (6 + 5)) \times 4 \times 32 \times 1. \\
10890 &= 987 \times (6 + 5) + 4 \times 3 + 21. \\
10891 &= 9 \times (8 \times 7 + 6 + 543) \times 2 + 1. \\
10892 &= 98 + 7 \times 6 \times (5 + 4 \times 3 \times 21). \\
10893 &= 987 \times (6 + 5) + 4 + 32 \times 1. \\
10894 &= 987 \times (6 + 5) + 4 + 32 + 1. \\
10895 &= 9876 - 5 + 4(3 + 2) \times 1. \\
10896 &= 9876 - 5 + 4(3 + 2) + 1. \\
10897 &= 987 \times (6 + 5) + 4 \times (3^2 + 1). \\
10898 &= (9 + (8 + 7 \times (6 + 5))) \times 4^3 \times 2 \times 1. \\
10899 &= (98 + 7 + 6 \times (5 + 4^3)) \times 21. \\
10900 &= (9 + 8) \times (7 + 6 + 5^4 + 3) + 2 + 1. \\
10901 &= (98 + 7 + 65) \times 4^3 + 21. \\
10902 &= 987 \times (6 + 5) + 43 + 2 \times 1. \\
10903 &= 987 \times (6 + 5) + 43 + 2 + 1. \\
10904 &= 9 \times 8 \times 76 + 5432 \times 1. \\
10905 &= 9 \times 8 \times 76 + 5432 + 1. \\
10906 &= 9876 + 5 + 4(3 + 2) + 1. \\
10907 &= 987 \times (6 + 5) + (4 + 3)^2 + 1. \\
10908 &= 9 \times 87 + (6 + 5 + 4)^3 \times (2 + 1). \\
10909 &= (9 + 8) \times (7 + 6 + 5^4) + 3 \times 21. \\
10910 &= (9 + 8 - 7) \times (6 + 543 \times 2 - 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
10911 &= 1 + 2 + 3 \times (4 + 56 \times 7 + 8) \times 9. \\
10912 &= ((1 + 2)^3 + 4) \times (5 \times 67 + 8 + 9). \\
10913 &= (1 \times 23 + 4 \times 5 \times 67) \times 8 + 9. \\
10914 &= 1 \times 2 \times 3 \times (4^5 + 6 + 789). \\
10915 &= 12 + 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10916 &= 1 \times 2 + 3 \times (4 + 5 \times 6 \times 7) \times (8 + 9). \\
10917 &= 1 + 2 + 3 \times (4 + 5 \times 6 \times 7) \times (8 + 9). \\
10918 &= (1 + 2)^{(3+4)} \times 5 + (6 - 7) \times 8 - 9. \\
10919 &= (1 + 2)^{(3+4)} \times 5 - 6 + 7 - 8 - 9. \\
10920 &= 12 + 3 \times (4 + 56 \times 7 + 8) \times 9. \\
10921 &= (12 \times 3^4 + 56 \times 7) \times 8 + 9. \\
10922 &= 1 + 2^3 \times 4 \times (5 + 6 \times 7 \times 8) + 9. \\
10923 &= 1 \times 23 + 4 \times 5 \times (67 \times 8 + 9). \\
10924 &= 1 + 23 + 4 \times 5 \times (67 \times 8 + 9). \\
10925 &= (1 + 2) \times (3^4 + 5) \times 6 \times 7 + 89. \\
10926 &= (12^3 + 4 + 5) \times 6 + 7 \times 8 \times 9. \\
10927 &= (1 + 2)^3 + 4 \times 5 \times (67 \times 8 + 9). \\
10928 &= -1 + (2 + (3 + 4 \times 5) \times 6) \times 78 + 9. \\
10929 &= 12 \times 345 + 6789. \\
10930 &= (1 + 2 \times 3^4) \times (5 + 6 + 7 \times 8) + 9. \\
10931 &= (123 + 4) \times (5 \times 6 + 7 \times 8) + 9. \\
10932 &= 12 \times ((3 + 45) \times 6 + 7 \times 89). \\
10933 &= 1^2 + 3 \times (4 + 56 \times (7 \times 8 + 9)). \\
10934 &= (12 + 3 + 4) \times (567 + 8) + 9. \\
10935 &= 1^2 \times 3^4 \times (56 + 7 + 8 \times 9). \\
10936 &= 12 \times 3 + 4 \times 5 \times (67 \times 8 + 9). \\
10937 &= 1 \times 2 + 3^4 \times (56 + 7 + 8 \times 9). \\
10938 &= 1 + 2 + 3^4 \times (56 + 7 + 8 \times 9). \\
10939 &= 1 - 2 \times 3 + 456 \times (7 + 8 + 9). \\
10940 &= 1 - 2 - 3 + 456 \times (7 + 8 + 9). \\
10941 &= (1 + 2) \times (3 + 4 + 56 \times (7 \times 8 + 9)). \\
10942 &= -1 + 2 - 3 + 456 \times (7 + 8 + 9). \\
10943 &= 1 \times 2 - 3 + 456 \times (7 + 8 + 9). \\
10944 &= 1^{23} \times 456 \times (7 + 8 + 9). \\
10945 &= 1^{23} + 456 \times (7 + 8 + 9). \\
10946 &= 1 - 2 + 3 + 456 \times (7 + 8 + 9). \\
10947 &= 12 + 3^4 \times (56 + 7 + 8 \times 9). \\
10948 &= 1 \times 2 \times 34 \times (5 + 67 + 89). \\
10949 &= 1 + 2 \times 34 \times (5 + 67 + 89). \\
10950 &= 1 + 2 + 3 + 456 \times (7 + 8 + 9). \\
10951 &= 1 + 2 \times 3 + 456 \times (7 + 8 + 9). \\
10952 &= 1 \times 2^3 + 456 \times (7 + 8 + 9). \\
10953 &= 1 + 2^3 + 456 \times (7 + 8 + 9). \\
10954 &= 1 + ((2 \times 3)^4 + 5 + 67) \times 8 + 9. \\
10955 &= -1 + (23 - 45) \times (6 - 7 \times 8 \times 9). \\
10956 &= 123 \times (4 + (5 + 6) \times 7 + 8) + 9. \\
10957 &= (1 + 2)^{(3+4)} \times 5 - 67 + 89. \\
10958 &= \text{still not available.} \\
10959 &= 12 + 3 + 456 \times (7 + 8 + 9). \\
10960 &= 12 + (3^4 + 5 + 6) \times 7 \times (8 + 9). \\
10961 &= (1 + 2 + 34) \times (5 \times 6 + 7) \times 8 + 9. \\
10962 &= 12 \times 3^4 \times 5 + 678 \times 9. \\
10963 &= 1 + 2 \times (34 + 567 + 8) \times 9. \\
10964 &= (1^2 + 3) \times (4 \times (5 + 678) + 9). \\
10965 &= (1 + (2 + 34 + 56) \times 7) \times (8 + 9). \\
10966 &= -1 + 23 + 456 \times (7 + 8 + 9). \\
10967 &= 1 \times 23 + 456 \times (7 + 8 + 9). \\
10968 &= 1 \times 2 \times 3 \times 4^5 + 67 \times 8 \times 9. \\
10969 &= 1 + 2 \times 3 \times 4^5 + 67 \times 8 \times 9. \\
10970 &= 1 - 2 + (3 + 4 \times 5) \times (6 \times 78 + 9). \\
10971 &= (1 + 2)^3 + 456 \times (7 + 8 + 9). \\
10972 &= 1^2 + (3 + 4 \times 5) \times (6 \times 78 + 9). \\
10973 &= 1 \times 2 + (3 + 4 \times 5) \times (6 \times 78 + 9). \\
10974 &= (12 + 3^4) \times (5 + (6 + 7) \times 8 + 9). \\
10975 &= (1 + 2 \times 3) \times 4 \times 56 \times 7 + 8 - 9. \\
10976 &= (1 + 2)^{(3+4)} \times 5 - 6 + 7 \times 8 - 9. \\
10977 &= (1 + 2 \times 3) \times 4 \times 56 \times 7 - 8 + 9. \\
10978 &= (1 + 2)^{(3+4)} \times 5 + 6 \times 7 - 8 + 9. \\
10979 &= ((1^2 + 3)^4 + 5) \times 6 \times 7 + 8 + 9. \\
10980 &= 12 \times 3 + 456 \times (7 + 8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10911 &= (98 \times (7 + 6 \times 5) + 4) \times 3 + 21. \\
10912 &= (9 + 8 + (76 + 5) \times 4) \times 32 \times 1. \\
10913 &= (9 + 8 + (76 + 5) \times 4) \times 32 + 1. \\
10914 &= (9 + 8) \times (7 \times 6 \times 5 + 432 \times 1). \\
10915 &= (9 + 8 + 7 \times 6) \times 5 \times (4 + 32 + 1). \\
10916 &= (9 + 8) \times (7 \times 6 \times 5 + 4) \times 3 + 2 \times 1. \\
10917 &= (9 + 8) \times (7 \times 6 \times 5 + 4) \times 3 + 2 + 1. \\
10918 &= (9 + 8) \times ((7 + 6 + 5^4) + 3) + 21. \\
10919 &= -9 + 8 + 7 \times 65 \times 4 \times 3 \times 2 \times 1. \\
10920 &= 987 + (6 + 5) \times 43 \times 21. \\
10921 &= 987 \times (6 + 5) + 43 + 21. \\
10922 &= (9 + 8 \times 7) \times (6 + 54 \times 3) + 2 \times 1. \\
10923 &= (9 + 8 + 7) \times 65 \times (4 + 3) + 2 + 1. \\
10924 &= 987 \times (6 + 5) + 4 + 3 \times 21. \\
10925 &= (98 - 7) \times 6 \times 5 \times 4 + 3 + 2 \times 1. \\
10926 &= 9 \times (8 + (7 + 6 + 5) \times (4 + 3 \times 21)). \\
10927 &= (9 + (8 + 76 \times 5) \times 4) \times (3 \times 2 + 1). \\
10928 &= -9 - 8 + 76 \times (5 + 4 + 3)^2 + 1. \\
10929 &= 9 + 8 \times (76 + 5 + 4 \times 321). \\
10930 &= (9 \times (8 \times 7 + 65) + 4) \times (3^2 + 1). \\
10931 &= (9 + 8) \times (7 \times 6 \times 5 + 432 + 1). \\
10932 &= (9 + 8) \times (7 + 6 + 5^4 + 3 + 2) + 1. \\
10933 &= (9 + 8 \times 7 \times 65 - 4) \times 3 - 2 \times 1. \\
10934 &= (9 + 8 \times 7 \times 65 - 4) \times 3 - 2 + 1. \\
10935 &= 9 \times (8 + 7 + 6 \times 5 \times 4) \times 3^2 \times 1. \\
10936 &= 9 \times (8 + 7 + 6 \times 5 \times 4) \times 3^2 + 1. \\
10937 &= 9 + 8 + 7 \times 65 \times 4 \times 3 \times 2 \times 1. \\
10938 &= 9 + 8 + 7 \times 65 \times 4 \times 3 \times 2 + 1. \\
10939 &= (9 \times 8 \times 76 + 5 - 4 - 3) \times 2 - 1. \\
10940 &= 9 + 8 + (7 + 6 \times 54) \times (32 + 1). \\
10941 &= (98 + 76 \times 5 + 43) \times 21. \\
10942 &= 987 \times (6 + 5) + 4^3 + 21. \\
10943 &= 987 \times (6 + 5) + 43 \times 2 \times 1. \\
10944 &= 987 \times (6 + 5) + 43 \times 2 + 1. \\
10945 &= (9 + 87) \times 6 \times (5 + 4 \times 3 + 2) + 1. \\
10946 &= (9 \times (87 + 6) + 5) \times (4 + 3^2 \times 1). \\
10947 &= (9 \times (87 + 6) + 5) \times (4 + 3^2) + 1. \\
10948 &= (9 + 8 + 765) \times (4 \times 3 + 2) \times 1. \\
10949 &= (9 + 8) \times 7 \times (6 + 54 + 32) + 1. \\
10950 &= 9 + (8 \times 7 \times 65 + 4 + 3) \times (2 + 1). \\
10951 &= (9 \times (87 + 65) \times 4 + 3) \times 2 + 1. \\
10952 &= -9 - 87 \times (6 - 5 \times 4) \times 3^2 - 1. \\
10953 &= 9 \times (876 + 5 \times 4 + 321). \\
10954 &= 9 + 8 \times 76 \times (5 + 4 + 3^2) + 1. \\
10955 &= (9 + 8 + 7 \times 65 \times 4 \times 3) \times 2 + 1. \\
10956 &= (9 \times 8 \times 7 \times 6 + 5^4 + 3) \times (2 + 1). \\
10957 &= (9 + 8 \times 7 \times 65 + 4) \times 3 - 2 \times 1. \\
10958 &= (9 + 8 \times 7 \times 65 + 4) \times 3 - 2 + 1. \\
10959 &= 9 + (8 \times 76 \times (5 + 4) + 3) \times 2 \times 1. \\
10960 &= 9 + (8 \times 76 \times (5 + 4) + 3) \times 2 + 1. \\
10961 &= (9 + 8 \times 7 \times 65 + 4) \times 3 + 2 \times 1. \\
10962 &= 9876 + 543 \times 2 \times 1. \\
10963 &= 9876 + 543 \times 2 + 1. \\
10964 &= (-9 - 87 + 6 \times 5^4) \times 3 + 2 \times 1. \\
10965 &= 9 + (8 \times 7 \times 65 + 4 \times 3) \times (2 + 1). \\
10966 &= (1 \times 2 + 3) \times ((4 + 5 - 6)^7 + 8) - 9. \\
10967 &= (9 \times 8 \times 76 + 5 + 4 + 3) \times 2 - 1. \\
10968 &= (9 \times 8 \times 76 + 5 + 4 + 3) \times 2 \times 1. \\
10969 &= (9 \times 8 \times 76 + 5 + 4 + 3) \times 2 + 1. \\
10970 &= 9 + 87 \times (6 + 5 \times 4 \times 3 \times 2) - 1. \\
10971 &= 9 + 87 \times (6 \times 5 \times 4 + 3 \times 2 \times 1). \\
10972 &= 9 + 87 \times (6 + 54 + 3) \times 2 + 1. \\
10973 &= -98 + 7 - 6 \times (5 - 43^2 \times 1). \\
10974 &= 9 + (8 + 7 \times (6 + 5)) \times 43 \times (2 + 1). \\
10975 &= (9 + 8 + 76) \times (-5 + 4^3) \times 2 + 1. \\
10976 &= 98 \times (7 + 65 + 4 \times (3^2 + 1)). \\
10977 &= 9 \times 8 \times (7 + 6 \times 5) \times 4 + 321. \\
10978 &= (9 \times 8 \times 76 + 5 + 4 \times 3) \times 2 \times 1. \\
10979 &= 9 + 8 \times 7 + (6 \times 5 + 4) \times 321. \\
10980 &= (9 + 8 \times 7 \times 65 + 4) \times 3 + 21.
\end{aligned}$$

Increasing order

$$\begin{aligned}
10981 &= 1 + 23 \times (4 + 5 + 6 \times 78) + 9. \\
10982 &= 1 + (2 + 3^4 + 56) \times (7 + 8 \times 9). \\
10983 &= (1 + 2 \times 3) \times (4^5 + 67 \times 8 + 9). \\
10984 &= 1 \times 2^3 \times (4 \times (5 + 6 \times 7 \times 8) + 9). \\
10985 &= (1 + 2^3 + 4) \times (56 + 789). \\
10986 &= 1 + 2^3 \times 4 \times (5 \times 67 + 8) + 9. \\
10987 &= -1 \times 2 + (3 \times 45 + 6) \times 78 - 9. \\
10988 &= (1 + 2)^{(3+4)} \times 5 + 6 + 7 \times 8 - 9. \\
10989 &= (1 + 234 \times 5 + 6 \times 7 + 8) \times 9. \\
10990 &= 1 + (23 + 4) \times (5 \times 67 + 8 \times 9). \\
10991 &= (1 + 2) \times 3456 + 7 \times 89. \\
10992 &= 1 \times 23 \times 456 + 7 \times 8 \times 9. \\
10993 &= 1 + 23 \times 456 + 7 \times 8 \times 9. \\
10994 &= 1234 \times 5 + 67 \times 8 \times 9. \\
10995 &= -12 + (3 \times 45 + 6) \times 78 + 9. \\
10996 &= -1 + 234 \times (5 + 6 \times 7) + 8 - 9. \\
10997 &= (1^2 + 3^4) \times (56 + 78) + 9. \\
10998 &= (123 + 4^5 + 67 + 8) \times 9. \\
10999 &= 1 + 2 \times (34 + 5) \times (6 + (7 + 8) \times 9). \\
11000 &= 1 \times (2 + 3) \times 4 \times (5 + 67 \times 8 + 9). \\
11001 &= 1 + (2 + 3) \times 4 \times (5 + 67 \times 8 + 9). \\
11002 &= (1 + 2)^{(3+4)} \times 5 + 67 \times (-8 + 9). \\
11003 &= (1 + 2)^{(3+4)} \times 5 + 67 - 8 + 9. \\
11004 &= 1 \times 2 \times 3 \times (4^5 + 6 \times (7 + 8) \times 9). \\
11005 &= 1 + 2 \times 3 \times (4^5 + 6 \times (7 + 8) \times 9). \\
11006 &= (1 + 2)^{(3+4)} \times 5 + 6 + 7 \times 8 + 9. \\
11007 &= 1^2 \times (3 \times 45 + 6) \times 78 + 9. \\
11008 &= 1^2 + (3 \times 45 + 6) \times 78 + 9. \\
11009 &= 1 \times 2 + (3 \times 45 + 6) \times 78 + 9. \\
11010 &= 1 + 2 + (3 \times 45 + 6) \times 78 + 9. \\
11011 &= 1 \times 2 + (3 \times 456 + 7) \times 8 + 9. \\
11012 &= 1 + 2 + (3 \times 456 + 7) \times 8 + 9. \\
11013 &= (1 + 23) \times 456 + 78 - 9. \\
11014 &= -1 + 234 \times (5 + 6 \times 7) + 8 + 9. \\
11015 &= 1 \times 234 \times (5 + 6 \times 7) + 8 + 9. \\
11016 &= 1 + 234 \times (5 + 6 \times 7) + 8 + 9. \\
11017 &= (1^2 + 3 \times 456 + 7) \times 8 + 9. \\
11018 &= 1 \times 2 + 3^4 \times (5 + 6 \times 7 + 89). \\
11019 &= 12 + (3 \times 45 + 6) \times 78 + 9. \\
11020 &= (1 + 2)^{(3+4)} \times 5 + 6 + 7 + 8 \times 9. \\
11021 &= 12 + (3 \times 456 + 7) \times 8 + 9. \\
11022 &= (1 + 2) \times (34 + 56 \times (7 \times 8 + 9)). \\
11023 &= (1 + 23) \times 456 + 7 + 8 \times 9. \\
11024 &= (1 + 23 \times (4 + 5)) \times (6 + 7 \times 8 - 9). \\
11025 &= (1 \times 2 + 3 \times 456 + 7) \times 8 + 9. \\
11026 &= 1 + (2 + 3 \times 456 + 7) \times 8 + 9. \\
11027 &= -1 \times 2 + (3 \times 4 \times 5^6 - 7)/(8 + 9). \\
11028 &= 12 + 3^4 \times (5 + 6 \times 7 + 89). \\
11029 &= (1 - 2 \times 3 \times 45) \times (6 - 7 \times 8 + 9). \\
11030 &= (1 + 2)^{(3+4)} \times 5 + (6 + 7) \times 8 - 9. \\
11031 &= (1 + 23) \times 456 + 78 + 9. \\
11032 &= 1 \times 2 \times ((3 + 4) \times (5 - 6 + 789)). \\
11033 &= (1 + 2 + 3 \times 456 + 7) \times 8 + 9. \\
11034 &= (1 \times 2 \times 345 + 67 \times 8) \times 9. \\
11035 &= 1 + (2 \times 345 + 67 \times 8) \times 9. \\
11036 &= (1 + 2 \times 3 + (4 + 5) \times (6 + 7)) \times 89. \\
11037 &= (1 + 2)^{(3+4)} \times 5 + 6 + 7 + 89. \\
11038 &= (1 - 2 + 34) \times 5 \times 67 - 8 - 9. \\
11039 &= (12 + 3 + 4) \times (5 + 6 \times (7 + 89)). \\
11040 &= (1 + 23) \times 456 + 7 + 89. \\
11041 &= 1 + 23 \times (456 + 7 + 8 + 9). \\
11042 &= 1 \times 2 \times (3 + (4 \times 5 + 6 \times 7) \times 89). \\
11043 &= (1 + 2 \times 345 + 67 \times 8) \times 9. \\
11044 &= 1 + (23 + 4) \times (56 \times 7 + 8 + 9). \\
11045 &= (12^3 + 4 + 5) \times 6 + 7 \times 89. \\
11046 &= (1 + 2 \times 3 - 4 + 5 + 6) \times 789. \\
11047 &= -1 + 2^3 \times (4 \times (5 \times 67 + 8) + 9). \\
11048 &= (1 + 23 + 4) \times 56 \times 7 + 8 \times 9. \\
11049 &= 12 \times (3 + 45 + 67) \times 8 + 9. \\
11050 &= (1 \times 2 + 3^4 + 567) \times (8 + 9).
\end{aligned}$$

Decreasing order

$$\begin{aligned}
10981 &= (9 \times 8 + 7) \times (6 + 5 + 4^3 \times 2 \times 1). \\
10982 &= (9 \times 8 + 7) \times (6 + 5 + 4 \times 32) + 1. \\
10983 &= (9 + 8 \times 7 \times 65 + 4 \times 3) \times (2 + 1). \\
10984 &= 987 \times (6 + 5) + 4 \times 32 - 1. \\
10985 &= 987 \times (6 + 5) + 4 \times 32 \times 1. \\
10986 &= 987 \times (6 + 5) + 4 \times 32 + 1. \\
10987 &= (9 + (8 + 7 \times 65 \times 4) \times 3) \times 2 + 1. \\
10988 &= -9 \times (8 + 7) + 6 \times (5 + 43^2) - 7. \\
10989 &= 987 \times (6 + 5) + 4 \times (32 + 1). \\
10990 &= (9 \times 8 \times 76 + 5 \times 4 + 3) \times 2 \times 1. \\
10991 &= (9 \times 8 \times 76 + 5 \times 4 + 3) \times 2 + 1. \\
10992 &= 9 \times 8 + 7 \times 65 \times 4 \times 3 \times 2 \times 1. \\
10993 &= 9 \times 8 + 7 \times 65 \times 4 \times 3 \times 2 + 1. \\
10994 &= 9 + 8 + 7 \times (6 + 5 + 4) \times 32 + 1. \\
10995 &= 9 \times 8 + (7 + 6 \times 54) \times (32 + 1). \\
10996 &= 9 - (87 - 6 \times 5^4) \times 3 - 2 \times 1. \\
10997 &= 98 + (7 \times 65 + 4^3) \times 21. \\
10998 &= (9 \times 8 \times 76 + (5 + 4) \times 3) \times 2 \times 1. \\
10999 &= (9 \times 8 \times 76 + (5 + 4) \times 3) \times 2 + 1. \\
11000 &= (9 + 8) \times (7 + 6 + 5^4 + 3^2) + 1. \\
11001 &= 987 \times (6 + 5) + (4 \times 3)^2 \times 1. \\
11002 &= 987 \times (6 + 5) + (4 \times 3)^2 + 1. \\
11003 &= 9 \times 8 \times 7 \times 6 + (5 \times 4)^3 - 21. \\
11004 &= 987 \times (6 + 5) + (4 + 3) \times 21. \\
11005 &= (9 + 8 \times 7 + 6) \times 5 \times (4 + 3^{(2+1)}). \\
11006 &= -(9 + 8) \times 7 + 6 \times (5 + 43^2) + 7. \\
11007 &= 9 \times (((87 + 65) \times 4 + 3) \times 2 + 1). \\
11008 &= 9 \times 876 + 5^4 \times (3 + 2) - 1. \\
11009 &= 9 \times 876 + 5^4 \times (3 + 2 \times 1). \\
11010 &= 9 + 87 + (6 \times 5 + 4) \times 321. \\
11011 &= (9 + 8 \times (76 \times (5 + 4) + 3)) \times 2 + 1. \\
11012 &= (98 - 7) \times (6 \times 5 \times 4 + 3 - 2) + 1. \\
11013 &= -(9 \times 8 - 7) \times 6 + 543 \times 21. \\
11014 &= (9 \times 8 \times 76 + 5 \times (4 + 3)) \times 2 \times 1. \\
11015 &= (9 \times 8 \times 76 + 5 \times (4 + 3)) \times 2 + 1. \\
11016 &= 9 \times 8 + 76 \times (5 + 4 + 3)^2 \times 1. \\
11017 &= 9 \times 8 + 76 \times (5 + 4 + 3)^2 + 1. \\
11018 &= 98 + 7 \times 65 \times 4 \times 3 \times 2 \times 1. \\
11019 &= 98 + 7 \times 65 \times 4 \times 3 \times 2 + 1. \\
11020 &= (9 + 8 \times 7 + 6 + 5) \times ((4 \times 3)^2 + 1). \\
11021 &= 98 + (7 + 6 \times 54) \times (32 + 1). \\
11022 &= (9 + 8 + 7 \times 65 \times 4) \times 3 \times 2 \times 1. \\
11023 &= ((9 + 87 + 6) \times 54 + 3) \times 2 + 1. \\
11024 &= (9 \times 87 + 65) \times (4 + 3^2) \times 1. \\
11025 &= (9 + 8 + 76 + 5 + 4 + 3)^2 \times 1. \\
11026 &= (9 + 8 + 76 + 5 + 4 + 3)^2 + 1. \\
11027 &= 9 + 8 \times (7 \times 65 + 4) \times 3 + 2 \times 1. \\
11028 &= 9 + 8 \times (7 \times 65 + 4) \times 3 + 2 + 1. \\
11029 &= -9 - 87 + 6 \times (5 + 43^2) + 7. \\
11030 &= -9 + (8 \times 7 \times 6 + 5 + 4) \times 32 - 1. \\
11031 &= -9 + 8 \times ((7 \times 65 + 4) \times 3 + 2 + 1). \\
11032 &= (98 - 7 \times 6) \times (5 + 4^3 \times (2 + 1)). \\
11033 &= (9 + 8) \times 7 + (6 \times 5 + 4) \times 321. \\
11034 &= 9 + (87 + 6 + 5 + 4 + 3)^2 \times 1. \\
11035 &= 9 + (87 + 6 + 5 + 4 + 3)^2 + 1. \\
11036 &= 9 + (8 + 7) \times (6 + (5 + 4)^3) + 2 \times 1. \\
11037 &= 9 \times 8 \times (7 \times 6 + 5 + 4) \times 3 + 21. \\
11038 &= (9 \times 8 \times 7 + 6^5) \times 4/3 - 2 \times 1. \\
11039 &= -98 + 7 + 6 \times (5 + 43^2) + 7. \\
11040 &= (9 \times 8 \times 76 + 5 + 43) \times 2 \times 1. \\
11041 &= (9 \times 8 \times 76 + 5 + 43) \times 2 + 1. \\
11042 &= 9 + 8 + 7 \times (6 + 5 + 4^3) \times 21. \\
11043 &= 98 + 76 \times (5 + 4 + 3)^2 + 1. \\
11044 &= (9 + 8 \times (7 \times 65 + 4)) \times 3 + 2 - 1. \\
11045 &= 9 \times 8 \times 7 \times 6 + (5 \times 4)^3 + 21. \\
11046 &= 9 + 8 \times (7 \times 65 + 4) \times 3 + 21. \\
11047 &= (9 \times 87 + 6) \times (5 + 4 + 3 + 2) + 1. \\
11048 &= 98 \times 76 + (5 \times 4 \times 3)^2 \times 1. \\
11049 &= 9 \times (8 + 7) + (6 \times 5 + 4) \times 321. \\
11050 &= (9 + 8) \times (7 + 6) \times (5 + 43 + 2 \times 1).
\end{aligned}$$

Increasing order

$$\begin{aligned}
11051 &= ((1^2 + 3)^4 + 5) \times 6 \times 7 + 89. \\
11052 &= 12 \times (345 + 6 \times (7 + 89)). \\
11053 &= 1 + 2 \times (3 + (4 + 5) \times 67 + 8) \times 9. \\
11054 &= (1 - 2 + 34) \times 5 \times 67 + 8 - 9. \\
11055 &= (1 - 2 + 34) \times 5 \times 67 \times (-8 + 9). \\
11056 &= (1 - 2 + 34) \times 5 \times 67 - 8 + 9. \\
11057 &= ((1 \times 234 - 5) \times 6 + 7) \times 8 + 9. \\
11058 &= (1 \times 23 \times 4 + 5) \times (6 \times 7 + 8 \times 9). \\
11059 &= 1 + (23 \times 4 + 5) \times (6 \times 7 + 8 \times 9). \\
11060 &= (1 + 2 + 3^4 + 56) \times (7 + 8 \times 9). \\
11061 &= 1 + (2 + (3 + 4 \times 5) \times 6) \times (7 + 8 \times 9). \\
11062 &= (1 + 234) \times (5 + 6 \times 7) + 8 + 9. \\
11063 &= (1 + 23) \times 456 + 7 \times (8 + 9). \\
11064 &= (1 \times 2 + 3 + 456) \times (7 + 8 + 9). \\
11065 &= (1 + 23 + 4) \times 56 \times 7 + 89. \\
11066 &= (1 + 2)(3 + 4) \times 5 + 6 \times 7 + 89. \\
11067 &= 123 + 456 \times (7 + 8 + 9). \\
11068 &= 1^2 + 3 \times (4 \times 56 - 7) \times (8 + 9). \\
11069 &= -1 + 234 \times (5 + 6 \times 7) + 8 \times 9. \\
11070 &= (1 + 2) \times 3456 + 78 \times 9. \\
11071 &= 1 + 234 \times (5 + 6 \times 7) + 8 \times 9. \\
11072 &= (1 + 2^3 \times 4) \times 5 \times 67 + 8 + 9. \\
11073 &= 12^3 + (4 + 5 + 6) \times 7 \times 89. \\
11074 &= (1 + 2)(3 + 4) \times 5 + 67 + 8 \times 9. \\
11075 &= 1 + 2 \times (-3 - 4 + (5 + 6) \times 7 \times 8 \times 9). \\
11076 &= (1 + 2)(3 + 4) \times 5 + 6 + (7 + 8) \times 9. \\
11077 &= -1 + 2 \times ((3 + 4^5) \times 6 - 7 \times 89). \\
11078 &= -1 + 2 \times 3 \times (4 \times 56 + 7) \times 8 - 9. \\
11079 &= 123 \times (4 + 5 \times 6 + 7 \times 8) + 9. \\
11080 &= (1 + 2 \times 3)^4 + (5 + 6) \times 789. \\
11081 &= ((1 + 2)^3 \times (45 + 6) + 7) \times 8 + 9. \\
11082 &= -1 + (2 + 3) \times 4^5 + 67 \times 89. \\
11083 &= 1 \times (2 + 3) \times 4^5 + 67 \times 89. \\
11084 &= 1 + (2 + 3) \times 4^5 + 67 \times 89. \\
11085 &= (1^2 + 3 \times 45 + 6) \times 78 + 9. \\
11086 &= -1 + 234 \times (5 + 6 \times 7) + 89. \\
11087 &= 1 \times 234 \times (5 + 6 \times 7) + 89. \\
11088 &= 1 + 234 \times (5 + 6 \times 7) + 89. \\
11089 &= 1 + (2 \times 3 + 456) \times (7 + 8 + 9). \\
11090 &= 1 + (2 + 3) \times (45 \times 6 + 7) \times 8 + 9. \\
11091 &= (1 + 2)(3 + 4) \times 5 + 67 + 89. \\
11092 &= (1 + 234 - 5 + 6) \times (7 \times 8 - 9). \\
11093 &= -1^2 + (3^4 + 5) \times (-6 + (7 + 8) \times 9). \\
11094 &= (1 - 23 \times 4 + 5) \times (6 - (7 + 8) \times 9). \\
11095 &= 12^3 \times 4 + (5 + 6 \times 7) \times 89. \\
11096 &= (12 + 3 + 4) \times (567 + 8 + 9). \\
11097 &= 12^3 + 4 \times 5 \times 6 \times 78 + 9. \\
11098 &= 1 + 2 \times 3 \times (4 \times 56 + 7) \times 8 + 9. \\
11099 &= 1 \times 2 + 3^4 \times (5 \times (6 + 7) + (8 \times 9)). \\
11100 &= 1 + 2 + 3^4 \times (5 \times (6 + 7) + (8 \times 9)). \\
11101 &= (1 \times 2^{3+4}) \times 5 + 6 + 7 \times (8 + 9). \\
11102 &= 1 \times 2 \times (3 + 4 + (5 + 6) \times 7 \times 8 \times 9). \\
11103 &= (1 + 2) \times (3 \times 4^5 + 6 + 7 \times 89). \\
11104 &= -1 + 2 + 3 \times (456 + 7) \times 8 - 9. \\
11105 &= (12 + 3 \times 456 + 7) \times 8 + 9. \\
11106 &= (1 + 2^3)^4 + 567 \times 8 + 9. \\
11107 &= 1 + 2 \times (3 \times (4 \times 56 + 7) \times 8 + 9). \\
11108 &= -1 + 23 \times (4 + 5 + 6 \times (7 + 8 \times 9)). \\
11109 &= (1 + 2 \times 34) \times (5 + 67 + 89). \\
11110 &= 1 + 23 \times (4 + 5 + 6 \times (7 + 8 \times 9)). \\
11111 &= 1 \times 23 \times 456 + 7 \times 89.
\end{aligned}$$

Decreasing order

$$\begin{aligned}
11051 &= (9 + 8 \times 7) \times (6 + 54 \times 3 + 2) + 1. \\
11052 &= ((9 + 8) \times (7 + 65) + 4) \times 3^2 \times 1. \\
11053 &= ((9 + 8) \times (7 + 65) + 4) \times 3^2 + 1. \\
11054 &= 98 \times 7 + 6 \times 54 \times 32 \times 1. \\
11055 &= 98 \times 7 + 6 \times 54 \times 32 + 1. \\
11056 &= -9 + 8 - 7 - 6 \times (5 - 43^2 \times 1). \\
11057 &= 9 + 8 \times (7 + 6 \times 5 + 4^3 \times 21). \\
11058 &= (9 \times 8 \times 76 + 54 + 3) \times 2 \times 1. \\
11059 &= (9 \times 8 \times 76 + 54 + 3) \times 2 + 1. \\
11060 &= 98 \times 7 + 6 \times (54 \times 32 + 1). \\
11061 &= (98 + 7 \times 65) \times 4 \times (3 + 2) + 1. \\
11062 &= (9 \times 8 \times 76 - 5 + 4^3) \times 2 \times 1. \\
11063 &= (9 \times 8 + 7 \times 65 \times 4 \times 3) \times 2 - 1. \\
11064 &= (9 \times 8 \times 76 + 5 \times 4 \times 3) \times 2 \times 1. \\
11065 &= (9 \times 8 \times 76 + 5 \times 4 \times 3) \times 2 + 1. \\
11066 &= 9 \times (8 \times 76 + 5^4) - 32 + 1. \\
11067 &= (9 \times 8 \times 7 + 6 + 5 + 4 \times 3) \times 21. \\
11068 &= 9 + 8 - 7 - 6 \times (5 - 43^2 + 1). \\
11069 &= (-9 + 8 \times 7 - 6) \times 54 \times (3 + 2) - 1. \\
11070 &= (987 + 6 \times 5 \times 4) \times (3^2 + 1). \\
11071 &= 9 \times (8 + 7) \times (6 + 5 \times (4 + 3)) \times 2 + 1. \\
11072 &= (98 \times 7 + 6) \times (5 + 4 + 3 \times 2 + 1). \\
11073 &= 9876 + (54 + 3) \times 21. \\
11074 &= 98 \times (7 \times 6 + 5 + 4^3 + 2 \times 1). \\
11075 &= ((9 + 8) \times (7 + 6) + 5) \times (4 + 3)^2 + 1. \\
11076 &= 9 + (8 + 7 \times 65 + 4^3) \times 21. \\
11077 &= 9 - 8 \times 7 + 6 \times (5 + 43^2 \times 1). \\
11078 &= 9 - 8 \times 7 + 6 \times (5 + 43^2) + 1. \\
11079 &= 9 + (8 + 7) \times (6 + (5 + 4)^3 + 2 + 1). \\
11080 &= 9 \times (8 - 7) \times (6 + (5 \times (4 + 3))^2) + 1. \\
11081 &= (9 \times 8 \times 76 + 5 + 4^3) \times 2 - 1. \\
11082 &= (9 \times 8 \times 76 + 5 + 4^3) \times 2 \times 1. \\
11083 &= (9 \times 8 \times 76 + 5 + 4^3) \times 2 + 1. \\
11084 &= (9 + 8) \times (7 + 6 \times 54 + 321). \\
11085 &= (-9 + 8 \times 7 \times 65 + 4^3) \times (2 + 1). \\
11086 &= -9 + 8 + 7 \times (6 + 5) \times (4 \times 3)^2 - 1. \\
11087 &= -9 + 8 + 7 \times (6 + 5) \times (4 \times 3)^2 \times 1. \\
11088 &= 9 \times 8 \times (76 + 54 + 3 + 21). \\
11089 &= (98 + 7 \times 6 \times 5) \times 4 \times 3^2 + 1. \\
11090 &= 98 \times 7 + ((6 \times 5 + 4) \times 3)^2 \times 1. \\
11091 &= 98 \times 7 + (6 \times (5 + 4 \times 3))^2 + 1. \\
11092 &= 9 \times 8 + 76 \times ((5 + 4 + 3)^2 + 1). \\
11093 &= (-9 - 8 - 7 + 6 \times 5) \times 43^2 - 1. \\
11094 &= (9 + (87 \times 6 + 5) \times (4 + 3)) \times (2 + 1). \\
11095 &= (-9 - 8 - 7 + 6 \times 5) \times 43^2 + 1. \\
11096 &= 9 \times 8 \times 76 + 5^4 \times 3^2 - 1. \\
11097 &= 9 \times 8 \times 76 + 5^4 \times 3^2 \times 1. \\
11098 &= 9 \times 8 \times 76 + 5^4 \times 3^2 + 1. \\
11099 &= 9 \times (87 + 6 \times 54) \times 3 + 2 \times 1. \\
11100 &= 9 \times (87 + 6 \times 54) \times 3 + 2 + 1. \\
11101 &= (9 + 8) \times (7 + 6 + 5 + 4 \times 32 \times 1). \\
11102 &= 9 \times (8 \times 76 + 5^4) + 3 + 2 \times 1. \\
11103 &= 9 \times (8 \times 76 + 5^4) + 3 + 2 + 1. \\
11104 &= 9 \times (8 \times 76 + 5^4) + 3 \times 2 + 1. \\
11105 &= 9 + 8 + 7 \times (6 + 5) \times (4 \times 3)^2 \times 1. \\
11106 &= 9 + (8 \times 76 + 5^4) \times 3^2 \times 1. \\
11107 &= 9 + (8 \times 76 + 5^4) \times 3^2 + 1. \\
11108 &= -9 - 8 + 7 + 6 \times (5 + 43^2 - 1). \\
11109 &= 987 \times (6 + 5) + 4 \times 3 \times 21. \\
11110 &= -987 + 6^5 + 4321. \\
11111 &= -9 + 8 \times 7 - 6 \times (5 - 43^2 \times 1).
\end{aligned}$$

3. NUMBERS WITH SUBTRACTION AND DIVISION

There are 1256 numbers where we have used subtraction and/or division operations. Out of them 611 are in the increasing case and 645 in decreasing case. The number 10958 is still missing. There are 178 numbers common in both the cases. Division sign is applied to find 8 numbers. These numbers are 9986, 10084, 10121 and 11027 in the increasing case and 9668, 9686, 10802 and 11038 in the decreasing case.

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