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# Selfie Numbers – I: Symmetrical and Unified Representations

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## Abstract

In previous works [11, 15, 16], the construction of Selfie numbers is done in different forms, such as in order of digits, in reverse order of digits, in increasing and decreasing orders of digits. This has been done using factorial and square-root with basic operations. This work is improvement over the above works specially in case of increasing and decreasing order of digits. Symmetrical consecutive and unified Selfie numbers are also presented.

## 1 Selfie Numbers

Numbers represented by their own digits connected by certain operations are understood as "Selfie numbers". These numbers are divided in two categories. Each category is again divided in two ways, i.e., one in order of digits appearing in the numbers and their reverse, and the second is in increasing and decreasing order of digits. Below are some examples of Selfie numbers.

### 1.1 Representations in Order of Digits and Reverse

- Order of Digits

$$24 = (2 \times \sqrt{4})!.$$

$$936 = (\sqrt{9}!)^3 + 6!.$$

$$1296 = \sqrt{(1+2)!^9}/6.$$

$$12969 = 1 \times 2 \times 9 \times 6! + 9.$$

$$24453 := \sqrt{\sqrt{2^{4!}}} + (4! + 5)^3.$$

- Reverse Order of Digits

$$24 = \sqrt{(4!)^2}.$$

$$936 = 6! + (3!)^{\sqrt{9}}.$$

$$1296 = 6^{(\sqrt{9}+2-1)}.$$

$$20167 = 7 + (6 + 1 + 0!)!/2.$$

$$91125 = (5 \times (-2 + 11))^{\sqrt{9}}.$$

### 1.2 Representations in Increasing and Decreasing Orders of Digits

- Increasing Order of Digits

$$936 = 3!! + 6^{\sqrt{9}}.$$

$$1296 = (1+2)! \times 6^{\sqrt{9}}.$$

$$8397 = -3 - 7! + 8!/\sqrt{9}.$$

$$45576 := -4! + 5! \times 5 \times 76.$$

$$573846 = -3!! - (\sqrt{4} - (5! - 6) \times 7! - 8).$$

- Decreasing Order of Digits

$$936 = (\sqrt{9})!! + 6^3.$$

$$1296 = ((\sqrt{9})! \times 6)^2 \times 1.$$

$$20148 = (8! - 4)/2 - 10.$$

$$53783 := 8 + 75 \times (-3 + 3!!).$$

$$435609 = 9 + (6! - 5!/\sqrt{4})^{(3-0!)}$$

Some studied on this kind of numbers appearing in sections 1.1–1.4 can be seen in Taneja [11, 15, 16].

We observe that there are number that can be represented without any order, for example,

$$34562 = 2 - (3 - 5) \times 6! \times 4!.$$

$$87369 = (3! + 7) \times 8!/6 + 9.$$

Even though these numbers are also Selfie numbers, but still are not under study.

### 1.3 Symmetrical Representations

In [15], author studied an interesting symmetrical consecutive representation of Selfie numbers, such as

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$$72590 = 0 + 9!/5 + 2 \times 7.$$

$$72591 = 1 + 9!/5 + 2 \times 7.$$

$$72592 = 2 + 9!/5 + 2 \times 7.$$

$$72593 = 3 + 9!/5 + 2 \times 7.$$

$$72594 = 4 + 9!/5 + 2 \times 7.$$

$$72595 = 5 + 9!/5 + 2 \times 7.$$

$$72596 = 6 + 9!/5 + 2 \times 7.$$

$$72597 = 7 + 9!/5 + 2 \times 7.$$

$$72598 = 8 + 9!/5 + 2 \times 7.$$

$$72599 = 9 + 9!/5 + 2 \times 7.$$

## 1.4 Unified Selfie Numbers

We observe that there are numbers that can be written in all the four ways. For simplicity, we call them as *unified Selfie numbers* [20]. According to subsections 1.1 and 1.2, the numbers 936 and 1296 are *unified Selfie numbers*. See below:

$$\begin{aligned} 936 &= (\sqrt{9})!^3 + 6! = 6! + 3!^{\sqrt{9}} = 3!! + 6^{\sqrt{9}} = (\sqrt{9})!! + 6^3. \\ 1296 &= \sqrt{(1+2)!^6/6} = 6^{\sqrt{9}+2-1} = (1+2)! \times 6^{\sqrt{9}} = ((\sqrt{9})! \times 6)^2 \times 1. \end{aligned}$$

More precisely, *unified Selfie numbers* are understood as:

$$\begin{aligned} \text{Unified Selfie number} &= \text{Order of digits} \\ &= \text{Reverse order of digits} \\ &= \text{Increasing order of digits} \\ &= \text{Decreasing order of digits}. \end{aligned}$$

## 1.5 Patterned Selfie Numbers

Madachy [4], pages 174-175 discussed the idea of different kind of numbers. In [21], we called them as *patterned Selfie numbers* and studied extensively. See examples below:

$$\begin{aligned} 36 &= 3! \times 6 \\ 360 &= 3! \times 60 \\ 3600 &= 3! \times 600 \end{aligned}$$

$$\begin{aligned} 4296 &= (-4 + (2 \times \sqrt{9})!) \times 6 \\ 42960 &= (-4 + (2 \times \sqrt{9})!) \times 60 \\ 429600 &= (-4 + (2 \times \sqrt{9})!) \times 600 \end{aligned}$$

$$\begin{aligned} 93552 &= ((\sqrt{9})! \times 3!^5 + 5!) \times 2 \\ 935520 &= ((\sqrt{9})! \times 3!^5 + 5!) \times 20 \\ 9355200 &= ((\sqrt{9})! \times 3!^5 + 5!) \times 200 \end{aligned}$$

In [11, 15, 16], we studied extensively "Selfie numbers" having the operations, *addition, subtraction, multiplication, potentiation, division, square-root and factorial* i.e.,  $[+, -, \times, ^, /, \sqrt{}, !]$ . This work is an extension of previous work [11, 15, 16], but limited only up to 5 digits. Working with six digits with *square-root* and *factorial* there are more than 60000 possibilities. In continuation the second part - **Selfie Numbers - II**, [22] is on six digits without factorial.

Study on numbers in different situation can be seen in [10, 12, 13, 14, 17, 18, 19]. For some comments refer to [1, 5]. Previous work in this direction can be seen in [2, 3, 6, 7, 8, 9].

## 2 Symmetrical Consecutive Representations in Order of Digits and Reverse

This section is divided in three subsections. The first one is for representations on both ways. Second is in order of digits and third is in reverse order.

### 2.1 Symmetrical Consecutive Representations in Both Ways

$$\begin{aligned} 720 &:= (\sqrt{7+2})!! + 0 = 0 + (\sqrt{2+7})!! \\ 721 &:= (\sqrt{7+2})!! + 1 = 1 + (\sqrt{2+7})!! \\ 722 &:= (\sqrt{7+2})!! + 2 = 2 + (\sqrt{2+7})!! \\ 723 &:= (\sqrt{7+2})!! + 3 = 3 + (\sqrt{2+7})!! \\ 724 &:= (\sqrt{7+2})!! + 4 = 4 + (\sqrt{2+7})!! \end{aligned}$$

$$\begin{aligned} 725 &:= (\sqrt{7+2})!! + 5 = 5 + (\sqrt{2+7})!! \\ 726 &:= (\sqrt{7+2})!! + 6 = 6 + (\sqrt{2+7})!! \\ 727 &:= (\sqrt{7+2})!! + 7 = 7 + (\sqrt{2+7})!! \\ 728 &:= (\sqrt{7+2})!! + 8 = 8 + (\sqrt{2+7})!! \\ 729 &:= (\sqrt{7+2})!! + 9 = 9 + (\sqrt{2+7})!! \end{aligned}$$

$$\begin{aligned}
1440 &:= (-1 + 4)!! \times \sqrt{4} + 0 = 0 + \sqrt{4} \times (4 - 1)!!.. \\
1441 &:= (-1 + 4)!! \times \sqrt{4} + 1 = 1 + \sqrt{4} \times (4 - 1)!!.. \\
1442 &:= (-1 + 4)!! \times \sqrt{4} + 2 = 2 + \sqrt{4} \times (4 - 1)!!.. \\
1443 &:= (-1 + 4)!! \times \sqrt{4} + 3 = 3 + \sqrt{4} \times (4 - 1)!!.. \\
1444 &:= (-1 + 4)!! \times \sqrt{4} + 4 = 4 + \sqrt{4} \times (4 - 1)!!.. \\
1445 &:= (-1 + 4)!! \times \sqrt{4} + 5 = 5 + \sqrt{4} \times (4 - 1)!!.. \\
1446 &:= (-1 + 4)!! \times \sqrt{4} + 6 = 6 + \sqrt{4} \times (4 - 1)!!.. \\
1447 &:= (-1 + 4)!! \times \sqrt{4} + 7 = 7 + \sqrt{4} \times (4 - 1)!!.. \\
1448 &:= (-1 + 4)!! \times \sqrt{4} + 8 = 8 + \sqrt{4} \times (4 - 1)!!.. \\
1449 &:= (-1 + 4)!! \times \sqrt{4} + 9 = 9 + \sqrt{4} \times (4 - 1)!!.. \\
\\
2160 &:= (2 + 1) \times 6! + 0 = 0 + 6! \times (1 + 2).. \\
2161 &:= (2 + 1) \times 6! + 1 = 1 + 6! \times (1 + 2).. \\
2162 &:= (2 + 1) \times 6! + 2 = 2 + 6! \times (1 + 2).. \\
2163 &:= (2 + 1) \times 6! + 3 = 3 + 6! \times (1 + 2).. \\
2164 &:= (2 + 1) \times 6! + 4 = 4 + 6! \times (1 + 2).. \\
2165 &:= (2 + 1) \times 6! + 5 = 5 + 6! \times (1 + 2).. \\
2166 &:= (2 + 1) \times 6! + 6 = 6 + 6! \times (1 + 2).. \\
2167 &:= (2 + 1) \times 6! + 7 = 7 + 6! \times (1 + 2).. \\
2168 &:= (2 + 1) \times 6! + 8 = 8 + 6! \times (1 + 2).. \\
2169 &:= (2 + 1) \times 6! + 9 = 9 + 6! \times (1 + 2).. \\
\\
2520 &:= (2 + 5)!/2 + 0 = 0 + (2 + 5)!/2.. \\
2521 &:= (2 + 5)!/2 + 1 = 1 + (2 + 5)!/2.. \\
2522 &:= (2 + 5)!/2 + 2 = 2 + (2 + 5)!/2.. \\
2523 &:= (2 + 5)!/2 + 3 = 3 + (2 + 5)!/2.. \\
2524 &:= (2 + 5)!/2 + 4 = 4 + (2 + 5)!/2.. \\
2525 &:= (2 + 5)!/2 + 5 = 5 + (2 + 5)!/2.. \\
2526 &:= (2 + 5)!/2 + 6 = 6 + (2 + 5)!/2.. \\
2527 &:= (2 + 5)!/2 + 7 = 7 + (2 + 5)!/2.. \\
2528 &:= (2 + 5)!/2 + 8 = 8 + (2 + 5)!/2.. \\
2529 &:= (2 + 5)!/2 + 9 = 9 + (2 + 5)!/2.. \\
\\
3600 &:= 3!! \times (6 - 0!) + 0 = 0 + (-0! + 6) \times 3!!.. \\
3601 &:= 3!! \times (6 - 0!) + 1 = 1 + (-0! + 6) \times 3!!.. \\
3602 &:= 3!! \times (6 - 0!) + 2 = 2 + (-0! + 6) \times 3!!.. \\
3603 &:= 3!! \times (6 - 0!) + 3 = 3 + (-0! + 6) \times 3!!.. \\
3604 &:= 3!! \times (6 - 0!) + 4 = 4 + (-0! + 6) \times 3!!.. \\
3605 &:= 3!! \times (6 - 0!) + 5 = 5 + (-0! + 6) \times 3!!.. \\
3606 &:= 3!! \times (6 - 0!) + 6 = 6 + (-0! + 6) \times 3!!.. \\
3607 &:= 3!! \times (6 - 0!) + 7 = 7 + (-0! + 6) \times 3!!.. \\
3608 &:= 3!! \times (6 - 0!) + 8 = 8 + (-0! + 6) \times 3!!.. \\
3609 &:= 3!! \times (6 - 0!) + 9 = 9 + (-0! + 6) \times 3!!.. \\
\\
5040 &:= (5 + \sqrt{04})! + 0 = 0 + (\sqrt{4} + 05)!.. \\
5041 &:= (5 + \sqrt{04})! + 1 = 1 + (\sqrt{4} + 05)!.. \\
5042 &:= (5 + \sqrt{04})! + 2 = 2 + (\sqrt{4} + 05)!.. \\
5043 &:= (5 + \sqrt{04})! + 3 = 3 + (\sqrt{4} + 05)!.. \\
5044 &:= (5 + \sqrt{04})! + 4 = 4 + (\sqrt{4} + 05)!..
\end{aligned}$$

$$\begin{aligned}
5045 &:= (5 + \sqrt{04})! + 5 = 5 + (\sqrt{4} + 05)!.. \\
5046 &:= (5 + \sqrt{04})! + 6 = 6 + (\sqrt{4} + 05)!.. \\
5047 &:= (5 + \sqrt{04})! + 7 = 7 + (\sqrt{4} + 05)!.. \\
5048 &:= (5 + \sqrt{04})! + 8 = 8 + (\sqrt{4} + 05)!.. \\
5049 &:= (5 + \sqrt{04})! + 9 = 9 + (\sqrt{4} + 05)!.. \\
\\
5160 &:= 5! + (1 + 6)! + 0 = 0 + (6 + 1)! + 5!. \\
5161 &:= 5! + (1 + 6)! + 1 = 1 + (6 + 1)! + 5!. \\
5162 &:= 5! + (1 + 6)! + 2 = 2 + (6 + 1)! + 5!. \\
5163 &:= 5! + (1 + 6)! + 3 = 3 + (6 + 1)! + 5!. \\
5164 &:= 5! + (1 + 6)! + 4 = 4 + (6 + 1)! + 5!. \\
5165 &:= 5! + (1 + 6)! + 5 = 5 + (6 + 1)! + 5!. \\
5166 &:= 5! + (1 + 6)! + 6 = 6 + (6 + 1)! + 5!. \\
5167 &:= 5! + (1 + 6)! + 7 = 7 + (6 + 1)! + 5!. \\
5168 &:= 5! + (1 + 6)! + 8 = 8 + (6 + 1)! + 5!. \\
5169 &:= 5! + (1 + 6)! + 9 = 9 + (6 + 1)! + 5!. \\
\\
10080 &:= (1 + 0!) \times (-0! + 8)! + 0 = 0 + (8 - 0!)! \times (0! + 1).. \\
10081 &:= (1 + 0!) \times (-0! + 8)! + 1 = 1 + (8 - 0!)! \times (0! + 1).. \\
10082 &:= (1 + 0!) \times (-0! + 8)! + 2 = 2 + (8 - 0!)! \times (0! + 1).. \\
10083 &:= (1 + 0!) \times (-0! + 8)! + 3 = 3 + (8 - 0!)! \times (0! + 1).. \\
10084 &:= (1 + 0!) \times (-0! + 8)! + 4 = 4 + (8 - 0!)! \times (0! + 1).. \\
10085 &:= (1 + 0!) \times (-0! + 8)! + 5 = 5 + (8 - 0!)! \times (0! + 1).. \\
10086 &:= (1 + 0!) \times (-0! + 8)! + 6 = 6 + (8 - 0!)! \times (0! + 1).. \\
10087 &:= (1 + 0!) \times (-0! + 8)! + 7 = 7 + (8 - 0!)! \times (0! + 1).. \\
10088 &:= (1 + 0!) \times (-0! + 8)! + 8 = 8 + (8 - 0!)! \times (0! + 1).. \\
10089 &:= (1 + 0!) \times (-0! + 8)! + 9 = 9 + (8 - 0!)! \times (0! + 1).. \\
\\
12960 &:= 1 \times 2 \times 9 \times 6! + 0 = 0 + 6! \times 9 \times 2 \times 1.. \\
12961 &:= 1 + 2 \times 9 \times 6! \times 1 = 1 + 6! \times 9 \times 2 \times 1.. \\
12962 &:= 1 \times 2 + 9 \times 6! \times 2 = 2 + 6! \times 9 \times 2 \times 1.. \\
12963 &:= 1 \times 2 \times 9 \times 6! + 3 = 3 + 6! \times 9 \times 2 \times 1.. \\
12964 &:= 1 \times 2 \times 9 \times 6! + 4 = 4 + 6! \times 9 \times 2 \times 1.. \\
12965 &:= 1 \times 2 \times 9 \times 6! + 5 = 5 + 6! \times 9 \times 2 \times 1.. \\
12966 &:= 1 \times 2 \times 9 \times 6! + 6 = 6 + 6! \times 9 \times 2 \times 1.. \\
12967 &:= 1 \times 2 \times 9 \times 6! + 7 = 7 + 6! \times 9 \times 2 \times 1.. \\
12968 &:= 1 \times 2 \times 9 \times 6! + 8 = 8 + 6! \times 9 \times 2 \times 1.. \\
12969 &:= 1 \times 2 \times 9 \times 6! + 9 = 9 + 6! \times 9 \times 2 \times 1.. \\
\\
14400 &:= (1 + 4)!^{\sqrt{4}} + 00 = 0 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14401 &:= (1 + 4)!^{\sqrt{4}} + 01 = 1 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14402 &:= (1 + 4)!^{\sqrt{4}} + 02 = 2 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14403 &:= (1 + 4)!^{\sqrt{4}} + 03 = 3 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14404 &:= (1 + 4)!^{\sqrt{4}} + 04 = 4 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14405 &:= (1 + 4)!^{\sqrt{4}} + 05 = 5 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14406 &:= (1 + 4)!^{\sqrt{4}} + 06 = 6 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14407 &:= (1 + 4)!^{\sqrt{4}} + 07 = 7 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14408 &:= (1 + 4)!^{\sqrt{4}} + 08 = 8 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
14409 &:= (1 + 4)!^{\sqrt{4}} + 09 = 9 + (0! + 4)!^{\sqrt{4}} \times 1.. \\
\\
17280 &:= (-1 + 7)! \times (\sqrt{2} \times 8)! + 0 = 0 + (8/2)! \times (7 - 1)!.. \\
17281 &:= (-1 + 7)! \times (\sqrt{2} \times 8)! + 1 = 1 + (8/2)! \times (7 - 1)!..
\end{aligned}$$

$$\begin{aligned}
17282 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 2 = 2 + (8/2)! \times (7 - 1)! \\
17283 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 3 = 3 + (8/2)! \times (7 - 1)! \\
17284 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 4 = 4 + (8/2)! \times (7 - 1)! \\
17285 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 5 = 5 + (8/2)! \times (7 - 1)! \\
17286 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 6 = 6 + (8/2)! \times (7 - 1)! \\
17287 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 7 = 7 + (8/2)! \times (7 - 1)! \\
17288 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 8 = 8 + (8/2)! \times (7 - 1)! \\
17289 &:= (-1 + 7)! \times (\sqrt{2 \times 8})! + 9 = 9 + (8/2)! \times (7 - 1)!. 
\end{aligned}$$

$$\begin{aligned}
25920 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 0 = 0 + (2^{\sqrt{9}})! - 5!^2. \\
25921 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 1 = 1 + (2^{\sqrt{9}})! - 5!^2. \\
25922 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 2 = 2 + (2^{\sqrt{9}})! - 5!^2. \\
25923 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 3 = 3 + (2^{\sqrt{9}})! - 5!^2. \\
25924 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 4 = 4 + (2^{\sqrt{9}})! - 5!^2. \\
25925 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 5 = 5 + (2^{\sqrt{9}})! - 5!^2. \\
25926 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 6 = 6 + (2^{\sqrt{9}})! - 5!^2. \\
25927 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 7 = 7 + (2^{\sqrt{9}})! - 5!^2. \\
25928 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 8 = 8 + (2^{\sqrt{9}})! - 5!^2. \\
25929 &:= (-2 + 5)!! \times (\sqrt{9})!^2 + 9 = 9 + (2^{\sqrt{9}})! - 5!^2. 
\end{aligned}$$

$$\begin{aligned}
30240 &:= 3! \times (0! + 2 + 4)! + 0 = 0 + 42 \times (0 + 3!!). \\
30241 &:= 3! \times (0! + 2 + 4)! + 1 = 1 + 42 \times (0 + 3!!). \\
30242 &:= 3! \times (0! + 2 + 4)! + 2 = 2 + 42 \times (0 + 3!!). \\
30243 &:= 3! \times (0! + 2 + 4)! + 3 = 3 + 42 \times (0 + 3!!). \\
30244 &:= 3! \times (0! + 2 + 4)! + 4 = 4 + 42 \times (0 + 3!!). \\
30245 &:= 3! \times (0! + 2 + 4)! + 5 = 5 + 42 \times (0 + 3!!). \\
30246 &:= 3! \times (0! + 2 + 4)! + 6 = 6 + 42 \times (0 + 3!!). \\
30247 &:= 3! \times (0! + 2 + 4)! + 7 = 7 + 42 \times (0 + 3!!). \\
30248 &:= 3! \times (0! + 2 + 4)! + 8 = 8 + 42 \times (0 + 3!!). \\
30249 &:= 3! \times (0! + 2 + 4)! + 9 = 9 + 42 \times (0 + 3!!). 
\end{aligned}$$

$$\begin{aligned}
30960 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 0 = 0 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30961 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 1 = 1 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30962 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 2 = 2 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30963 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 3 = 3 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30964 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 4 = 4 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30965 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 5 = 5 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30966 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 6 = 6 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30967 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 7 = 7 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30968 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 8 = 8 + 6! + (\sqrt{9})! \times (0! + 3!)!. \\
30969 &:= 3! \times (0! + (\sqrt{9})!)! + 6! + 9 = 9 + 6! + (\sqrt{9})! \times (0! + 3!)!. 
\end{aligned}$$

$$\begin{aligned}
34560 &:= (3 + 45) \times 6! + 0 = 0 + 6! \times (5 + 43). \\
34561 &:= (3 + 45) \times 6! + 1 = 1 + 6! \times (5 + 43). \\
34562 &:= (3 + 45) \times 6! + 2 = 2 + 6! \times (5 + 43). \\
34563 &:= (3 + 45) \times 6! + 3 = 3 + 6! \times (5 + 43). \\
34564 &:= (3 + 45) \times 6! + 4 = 4 + 6! \times (5 + 43). \\
34565 &:= (3 + 45) \times 6! + 5 = 5 + 6! \times (5 + 43). \\
34566 &:= (3 + 45) \times 6! + 6 = 6 + 6! \times (5 + 43). 
\end{aligned}$$

$$\begin{aligned}
34567 &:= (3 + 45) \times 6! + 7 = 7 + 6! \times (5 + 43). \\
34568 &:= (3 + 45) \times 6! + 8 = 8 + 6! \times (5 + 43). \\
34569 &:= (3 + 45) \times 6! + 9 = 9 + 6! \times (5 + 43). \\
35280 &:= -(\sqrt{-3 + 52})! + 8! + 0 = 0 + 8! - (2 \times 5 - 3)!. \\
35281 &:= -(\sqrt{-3 + 52})! + 8! + 1 = 1 + 8! - (2 \times 5 - 3)!. \\
35282 &:= -(\sqrt{-3 + 52})! + 8! + 2 = 2 + 8! - (2 \times 5 - 3)!. \\
35283 &:= -(\sqrt{-3 + 52})! + 8! + 3 = 3 + 8! - (2 \times 5 - 3)!. \\
35284 &:= -(\sqrt{-3 + 52})! + 8! + 4 = 4 + 8! - (2 \times 5 - 3)!. \\
35285 &:= -(\sqrt{-3 + 52})! + 8! + 5 = 5 + 8! - (2 \times 5 - 3)!. \\
35286 &:= -(\sqrt{-3 + 52})! + 8! + 6 = 6 + 8! - (2 \times 5 - 3)!. \\
35287 &:= -(\sqrt{-3 + 52})! + 8! + 7 = 7 + 8! - (2 \times 5 - 3)!. \\
35288 &:= -(\sqrt{-3 + 52})! + 8! + 8 = 8 + 8! - (2 \times 5 - 3)!. \\
35289 &:= -(\sqrt{-3 + 52})! + 8! + 9 = 9 + 8! - (2 \times 5 - 3)!. 
\end{aligned}$$

$$\begin{aligned}
37440 &:= 3!! \times (7 \times 4 + 4!) + 0 = 0 + (4! + 4 \times 7) \times 3!! . \\
37441 &:= 3!! \times (7 \times 4 + 4!) + 1 = 1 + (4! + 4 \times 7) \times 3!! . \\
37442 &:= 3!! \times (7 \times 4 + 4!) + 2 = 2 + (4! + 4 \times 7) \times 3!! . \\
37443 &:= 3!! \times (7 \times 4 + 4!) + 3 = 3 + (4! + 4 \times 7) \times 3!! . \\
37444 &:= 3!! \times (7 \times 4 + 4!) + 4 = 4 + (4! + 4 \times 7) \times 3!! . \\
37445 &:= 3!! \times (7 \times 4 + 4!) + 5 = 5 + (4! + 4 \times 7) \times 3!! . \\
37446 &:= 3!! \times (7 \times 4 + 4!) + 6 = 6 + (4! + 4 \times 7) \times 3!! . \\
37447 &:= 3!! \times (7 \times 4 + 4!) + 7 = 7 + (4! + 4 \times 7) \times 3!! . \\
37448 &:= 3!! \times (7 \times 4 + 4!) + 8 = 8 + (4! + 4 \times 7) \times 3!! . \\
37449 &:= 3!! \times (7 \times 4 + 4!) + 9 = 9 + (4! + 4 \times 7) \times 3!! . 
\end{aligned}$$

$$\begin{aligned}
38880 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 0 = 0 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38881 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 1 = 1 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38882 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 2 = 2 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38883 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 3 = 3 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38884 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 4 = 4 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38885 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 5 = 5 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38886 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 6 = 6 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38887 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 7 = 7 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38888 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 8 = 8 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . \\
38889 &:= -3!! \times \sqrt{\sqrt{8} + 8} + 8! + 9 = 9 + 8! - \sqrt{\sqrt{8} + 8} \times 3!! . 
\end{aligned}$$

$$\begin{aligned}
39480 &:= -3!! - (9 - 4)! + 8! + 0 = 0 + 8! - (\sqrt{49})!/3!. \\
39481 &:= -3!! - (9 - 4)! + 8! + 1 = 1 + 8! - (\sqrt{49})!/3!. \\
39482 &:= -3!! - (9 - 4)! + 8! + 2 = 2 + 8! - (\sqrt{49})!/3!. \\
39483 &:= -3!! - (9 - 4)! + 8! + 3 = 3 + 8! - (\sqrt{49})!/3!. \\
39484 &:= -3!! - (9 - 4)! + 8! + 4 = 4 + 8! - (\sqrt{49})!/3!. \\
39485 &:= -3!! - (9 - 4)! + 8! + 5 = 5 + 8! - (\sqrt{49})!/3!. \\
39486 &:= -3!! - (9 - 4)! + 8! + 6 = 6 + 8! - (\sqrt{49})!/3!. \\
39487 &:= -3!! - (9 - 4)! + 8! + 7 = 7 + 8! - (\sqrt{49})!/3!. \\
39488 &:= -3!! - (9 - 4)! + 8! + 8 = 8 + 8! - (\sqrt{49})!/3!. \\
39489 &:= -3!! - (9 - 4)! + 8! + 9 = 9 + 8! - (\sqrt{49})!/3!. 
\end{aligned}$$

$$\begin{aligned}
39600 &:= 3!! \times (9 \times 6 + 0!) + 0 = 0 + (0! + 6 \times 9) \times 3!! . \\
39601 &:= 3!! \times (9 \times 6 + 0!) + 1 = 1 + (0! + 6 \times 9) \times 3!! . \\
39602 &:= 3!! \times (9 \times 6 + 0!) + 2 = 2 + (0! + 6 \times 9) \times 3!! . 
\end{aligned}$$

$$\begin{aligned}
39603 &:= 3!! \times (9 \times 6 + 0!) + 3 = 3 + (0! + 6 \times 9) \times 3!! \\
39604 &:= 3!! \times (9 \times 6 + 0!) + 4 = 4 + (0! + 6 \times 9) \times 3!! \\
39605 &:= 3!! \times (9 \times 6 + 0!) + 5 = 5 + (0! + 6 \times 9) \times 3!! \\
39606 &:= 3!! \times (9 \times 6 + 0!) + 6 = 6 + (0! + 6 \times 9) \times 3!! \\
39607 &:= 3!! \times (9 \times 6 + 0!) + 7 = 7 + (0! + 6 \times 9) \times 3!! \\
39608 &:= 3!! \times (9 \times 6 + 0!) + 8 = 8 + (0! + 6 \times 9) \times 3!! \\
39609 &:= 3!! \times (9 \times 6 + 0!) + 9 = 9 + (0! + 6 \times 9) \times 3!! \\
\\
39680 &:= 3!!/9 - 6! + 8! + 0 = 0 + 8! + 6!/9 - 3!! \\
39681 &:= 3!!/9 - 6! + 8! + 1 = 1 + 8! + 6!/9 - 3!! \\
39682 &:= 3!!/9 - 6! + 8! + 2 = 2 + 8! + 6!/9 - 3!! \\
39683 &:= 3!!/9 - 6! + 8! + 3 = 3 + 8! + 6!/9 - 3!! \\
39684 &:= 3!!/9 - 6! + 8! + 4 = 4 + 8! + 6!/9 - 3!! \\
39685 &:= 3!!/9 - 6! + 8! + 5 = 5 + 8! + 6!/9 - 3!! \\
39686 &:= 3!!/9 - 6! + 8! + 6 = 6 + 8! + 6!/9 - 3!! \\
39687 &:= 3!!/9 - 6! + 8! + 7 = 7 + 8! + 6!/9 - 3!! \\
39688 &:= 3!!/9 - 6! + 8! + 8 = 8 + 8! + 6!/9 - 3!! \\
39689 &:= 3!!/9 - 6! + 8! + 9 = 9 + 8! + 6!/9 - 3!! \\
\\
40280 &:= -\sqrt{40^2} + 8! + 0 = 0 + 8! - 20 \times \sqrt{4}. \\
40281 &:= -\sqrt{40^2} + 8! + 1 = 1 + 8! - 20 \times \sqrt{4}. \\
40282 &:= -\sqrt{40^2} + 8! + 2 = 2 + 8! - 20 \times \sqrt{4}. \\
40283 &:= -\sqrt{40^2} + 8! + 3 = 3 + 8! - 20 \times \sqrt{4}. \\
40284 &:= -\sqrt{40^2} + 8! + 4 = 4 + 8! - 20 \times \sqrt{4}. \\
40285 &:= -\sqrt{40^2} + 8! + 5 = 5 + 8! - 20 \times \sqrt{4}. \\
40286 &:= -\sqrt{40^2} + 8! + 6 = 6 + 8! - 20 \times \sqrt{4}. \\
40287 &:= -\sqrt{40^2} + 8! + 7 = 7 + 8! - 20 \times \sqrt{4}. \\
40288 &:= -\sqrt{40^2} + 8! + 8 = 8 + 8! - 20 \times \sqrt{4}. \\
40289 &:= -\sqrt{40^2} + 8! + 9 = 9 + 8! - 20 \times \sqrt{4}. \\
\\
40320 &:= (40 - 32)! + 0 = 0 + ((2 + 30)/4)! \\
40321 &:= (40 - 32)! + 1 = 1 + ((2 + 30)/4)! \\
40322 &:= (40 - 32)! + 2 = 2 + ((2 + 30)/4)! \\
40323 &:= (40 - 32)! + 3 = 3 + ((2 + 30)/4)! \\
40324 &:= (40 - 32)! + 4 = 4 + ((2 + 30)/4)! \\
40325 &:= (40 - 32)! + 5 = 5 + ((2 + 30)/4)! \\
40326 &:= (40 - 32)! + 6 = 6 + ((2 + 30)/4)! \\
40327 &:= (40 - 32)! + 7 = 7 + ((2 + 30)/4)! \\
40328 &:= (40 - 32)! + 8 = 8 + ((2 + 30)/4)! \\
40329 &:= (40 - 32)! + 9 = 9 + ((2 + 30)/4)! \\
\\
40380 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 0 = 0 + 8! + 30 \times \sqrt{4}. \\
40381 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 1 = 1 + 8! + 30 \times \sqrt{4}. \\
40382 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 2 = 2 + 8! + 30 \times \sqrt{4}. \\
40383 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 3 = 3 + 8! + 30 \times \sqrt{4}. \\
40384 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 4 = 4 + 8! + 30 \times \sqrt{4}. \\
40385 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 5 = 5 + 8! + 30 \times \sqrt{4}. \\
40386 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 6 = 6 + 8! + 30 \times \sqrt{4}. \\
40387 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 7 = 7 + 8! + 30 \times \sqrt{4}.
\end{aligned}$$

$$\begin{aligned}
40388 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 8 = 8 + 8! + 30 \times \sqrt{4}. \\
40389 &:= \sqrt{(4 + 0!) \times 3!!} + 8! + 9 = 9 + 8! + 30 \times \sqrt{4}. \\
\\
40440 &:= (4 + 0!)! + (4 + 4)! + 0 = 0 + (4 + 4)! + (0! + 4)! \\
40441 &:= (4 + 0!)! + (4 + 4)! + 1 = 1 + (4 + 4)! + (0! + 4)! \\
40442 &:= (4 + 0!)! + (4 + 4)! + 2 = 2 + (4 + 4)! + (0! + 4)! \\
40443 &:= (4 + 0!)! + (4 + 4)! + 3 = 3 + (4 + 4)! + (0! + 4)! \\
40444 &:= (4 + 0!)! + (4 + 4)! + 4 = 4 + (4 + 4)! + (0! + 4)! \\
40445 &:= (4 + 0!)! + (4 + 4)! + 5 = 5 + (4 + 4)! + (0! + 4)! \\
40446 &:= (4 + 0!)! + (4 + 4)! + 6 = 6 + (4 + 4)! + (0! + 4)! \\
40447 &:= (4 + 0!)! + (4 + 4)! + 7 = 7 + (4 + 4)! + (0! + 4)! \\
40448 &:= (4 + 0!)! + (4 + 4)! + 8 = 8 + (4 + 4)! + (0! + 4)! \\
40449 &:= (4 + 0!)! + (4 + 4)! + 9 = 9 + (4 + 4)! + (0! + 4)! \\
\\
40480 &:= 40 \times 4 + 8! + 0 = 0 + 8! + 40 \times 4. \\
40481 &:= 40 \times 4 + 8! + 1 = 1 + 8! + 40 \times 4. \\
40482 &:= 40 \times 4 + 8! + 2 = 2 + 8! + 40 \times 4. \\
40483 &:= 40 \times 4 + 8! + 3 = 3 + 8! + 40 \times 4. \\
40484 &:= 40 \times 4 + 8! + 4 = 4 + 8! + 40 \times 4. \\
40485 &:= 40 \times 4 + 8! + 5 = 5 + 8! + 40 \times 4. \\
40486 &:= 40 \times 4 + 8! + 6 = 6 + 8! + 40 \times 4. \\
40487 &:= 40 \times 4 + 8! + 7 = 7 + 8! + 40 \times 4. \\
40488 &:= 40 \times 4 + 8! + 8 = 8 + 8! + 40 \times 4. \\
40489 &:= 40 \times 4 + 8! + 9 = 9 + 8! + 40 \times 4. \\
\\
45360 &:= (\sqrt{4} + 5)! \times (3 + 6) + 0 = 0 + 63 \times (\sqrt{5 + 4})!!. \\
45361 &:= (\sqrt{4} + 5)! \times (3 + 6) + 1 = 1 + 63 \times (\sqrt{5 + 4})!!. \\
45362 &:= (\sqrt{4} + 5)! \times (3 + 6) + 2 = 2 + 63 \times (\sqrt{5 + 4})!!. \\
45363 &:= (\sqrt{4} + 5)! \times (3 + 6) + 3 = 3 + 63 \times (\sqrt{5 + 4})!!. \\
45364 &:= (\sqrt{4} + 5)! \times (3 + 6) + 4 = 4 + 63 \times (\sqrt{5 + 4})!!. \\
45365 &:= (\sqrt{4} + 5)! \times (3 + 6) + 5 = 5 + 63 \times (\sqrt{5 + 4})!!. \\
45366 &:= (\sqrt{4} + 5)! \times (3 + 6) + 6 = 6 + 63 \times (\sqrt{5 + 4})!!. \\
45367 &:= (\sqrt{4} + 5)! \times (3 + 6) + 7 = 7 + 63 \times (\sqrt{5 + 4})!!. \\
45368 &:= (\sqrt{4} + 5)! \times (3 + 6) + 8 = 8 + 63 \times (\sqrt{5 + 4})!!. \\
45369 &:= (\sqrt{4} + 5)! \times (3 + 6) + 9 = 9 + 63 \times (\sqrt{5 + 4})!!. \\
\\
46080 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 0 = 0 + (\sqrt{8 + 0!})!! \times 64. \\
46081 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 1 = 1 + (\sqrt{8 + 0!})!! \times 64. \\
46082 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 2 = 2 + (\sqrt{8 + 0!})!! \times 64. \\
46083 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 3 = 3 + (\sqrt{8 + 0!})!! \times 64. \\
46084 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 4 = 4 + (\sqrt{8 + 0!})!! \times 64. \\
46085 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 5 = 5 + (\sqrt{8 + 0!})!! \times 64. \\
46086 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 6 = 6 + (\sqrt{8 + 0!})!! \times 64. \\
46087 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 7 = 7 + (\sqrt{8 + 0!})!! \times 64. \\
46088 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 8 = 8 + (\sqrt{8 + 0!})!! \times 64. \\
46089 &:= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 9 = 9 + (\sqrt{8 + 0!})!! \times 64. \\
\\
46660 &:= 4!/6 + 6^6 + 0 = 0 + 6 + 6^6 - \sqrt{4}. \\
46661 &:= 4!/6 + 6^6 + 1 = 1 + 6 + 6^6 - \sqrt{4}. \\
46662 &:= 4!/6 + 6^6 + 2 = 2 + 6 + 6^6 - \sqrt{4}. \\
46663 &:= 4!/6 + 6^6 + 3 = 3 + 6 + 6^6 - \sqrt{4}.
\end{aligned}$$

$$\begin{aligned} 46664 &:= 4!/6 + 6^6 + 4 = 4 + 6 + 6^6 - \sqrt{4}. \\ 46665 &:= 4!/6 + 6^6 + 5 = 5 + 6 + 6^6 - \sqrt{4}. \\ 46666 &:= 4!/6 + 6^6 + 6 = 6 + 6 + 6^6 - \sqrt{4}. \\ 46667 &:= 4!/6 + 6^6 + 7 = 7 + 6 + 6^6 - \sqrt{4}. \\ 46668 &:= 4!/6 + 6^6 + 8 = 8 + 6 + 6^6 - \sqrt{4}. \\ 46669 &:= 4!/6 + 6^6 + 9 = 9 + 6 + 6^6 - \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 48960 &:= 4 \times (8+9) \times 6! + 0 = 0 + 6! \times (9 \times 8 - 4). \\ 48961 &:= 4 \times (8+9) \times 6! + 1 = 1 + 6! \times (9 \times 8 - 4). \\ 48962 &:= 4 \times (8+9) \times 6! + 2 = 2 + 6! \times (9 \times 8 - 4). \\ 48963 &:= 4 \times (8+9) \times 6! + 3 = 3 + 6! \times (9 \times 8 - 4). \\ 48964 &:= 4 \times (8+9) \times 6! + 4 = 4 + 6! \times (9 \times 8 - 4). \\ 48965 &:= 4 \times (8+9) \times 6! + 5 = 5 + 6! \times (9 \times 8 - 4). \\ 48966 &:= 4 \times (8+9) \times 6! + 6 = 6 + 6! \times (9 \times 8 - 4). \\ 48967 &:= 4 \times (8+9) \times 6! + 7 = 7 + 6! \times (9 \times 8 - 4). \\ 48968 &:= 4 \times (8+9) \times 6! + 8 = 8 + 6! \times (9 \times 8 - 4). \\ 48969 &:= 4 \times (8+9) \times 6! + 9 = 9 + 6! \times (9 \times 8 - 4). \end{aligned}$$

$$\begin{aligned} 49680 &:= (4+9) \times 6! + 8! + 0 = 0 + 8! + 6! \times (9+4). \\ 49681 &:= (4+9) \times 6! + 8! + 1 = 1 + 8! + 6! \times (9+4). \\ 49682 &:= (4+9) \times 6! + 8! + 2 = 2 + 8! + 6! \times (9+4). \\ 49683 &:= (4+9) \times 6! + 8! + 3 = 3 + 8! + 6! \times (9+4). \\ 49684 &:= (4+9) \times 6! + 8! + 4 = 4 + 8! + 6! \times (9+4). \\ 49685 &:= (4+9) \times 6! + 8! + 5 = 5 + 8! + 6! \times (9+4). \\ 49686 &:= (4+9) \times 6! + 8! + 6 = 6 + 8! + 6! \times (9+4). \\ 49687 &:= (4+9) \times 6! + 8! + 7 = 7 + 8! + 6! \times (9+4). \\ 49688 &:= (4+9) \times 6! + 8! + 8 = 8 + 8! + 6! \times (9+4). \\ 49689 &:= (4+9) \times 6! + 8! + 9 = 9 + 8! + 6! \times (9+4). \end{aligned}$$

$$\begin{aligned} 59760 &:= 5! + (9! - 7!)/6 + 0 = 0 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59761 &:= 5! + (9! - 7!)/6 + 1 = 1 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59762 &:= 5! + (9! - 7!)/6 + 2 = 2 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59763 &:= 5! + (9! - 7!)/6 + 3 = 3 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59764 &:= 5! + (9! - 7!)/6 + 4 = 4 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59765 &:= 5! + (9! - 7!)/6 + 5 = 5 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59766 &:= 5! + (9! - 7!)/6 + 6 = 6 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59767 &:= 5! + (9! - 7!)/6 + 7 = 7 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59768 &:= 5! + (9! - 7!)/6 + 8 = 8 - 6! + 7! \times \sqrt{(9)!!/5}. \\ 59769 &:= 5! + (9! - 7!)/6 + 9 = 9 - 6! + 7! \times \sqrt{(9)!!/5}. \end{aligned}$$

$$\begin{aligned} 60480 &:= (6 + 0!)! \times (4 + 8) + 0 = 0 + 84 \times 06!. \\ 60481 &:= (6 + 0!)! \times (4 + 8) + 1 = 1 + 84 \times 06!. \\ 60482 &:= (6 + 0!)! \times (4 + 8) + 2 = 2 + 84 \times 06!. \\ 60483 &:= (6 + 0!)! \times (4 + 8) + 3 = 3 + 84 \times 06!. \\ 60484 &:= (6 + 0!)! \times (4 + 8) + 4 = 4 + 84 \times 06!. \end{aligned}$$

$$\begin{aligned} 60485 &:= (6 + 0!)! \times (4 + 8) + 5 = 5 + 84 \times 06!. \\ 60486 &:= (6 + 0!)! \times (4 + 8) + 6 = 6 + 84 \times 06!. \\ 60487 &:= (6 + 0!)! \times (4 + 8) + 7 = 7 + 84 \times 06!. \\ 60488 &:= (6 + 0!)! \times (4 + 8) + 8 = 8 + 84 \times 06!. \\ 60489 &:= (6 + 0!)! \times (4 + 8) + 9 = 9 + 84 \times 06!. \end{aligned}$$

$$\begin{aligned} 64840 &:= 6!^{\sqrt{4}}/8 + 40 = 0 + 4^8 + 4! - 6!. \\ 64841 &:= 6!^{\sqrt{4}}/8 + 41 = 1 + 4^8 + 4! - 6!. \\ 64842 &:= 6!^{\sqrt{4}}/8 + 42 = 2 + 4^8 + 4! - 6!. \\ 64843 &:= 6!^{\sqrt{4}}/8 + 43 = 3 + 4^8 + 4! - 6!. \\ 64844 &:= 6!^{\sqrt{4}}/8 + 44 = 4 + 4^8 + 4! - 6!. \\ 64845 &:= 6!^{\sqrt{4}}/8 + 45 = 5 + 4^8 + 4! - 6!. \\ 64846 &:= 6!^{\sqrt{4}}/8 + 46 = 6 + 4^8 + 4! - 6!. \\ 64847 &:= 6!^{\sqrt{4}}/8 + 47 = 7 + 4^8 + 4! - 6!. \\ 64848 &:= 6!^{\sqrt{4}}/8 + 48 = 8 + 4^8 + 4! - 6!. \\ 64849 &:= 6!^{\sqrt{4}}/8 + 49 = 9 + 4^8 + 4! - 6!. \end{aligned}$$

$$\begin{aligned} 75480 &:= -7! - 5! + \sqrt{4} \times 8! + 0 = 0 + 8! \times \sqrt{4} - 5! - 7!. \\ 75481 &:= -7! - 5! + \sqrt{4} \times 8! + 1 = 1 + 8! \times \sqrt{4} - 5! - 7!. \\ 75482 &:= -7! - 5! + \sqrt{4} \times 8! + 2 = 2 + 8! \times \sqrt{4} - 5! - 7!. \\ 75483 &:= -7! - 5! + \sqrt{4} \times 8! + 3 = 3 + 8! \times \sqrt{4} - 5! - 7!. \\ 75484 &:= -7! - 5! + \sqrt{4} \times 8! + 4 = 4 + 8! \times \sqrt{4} - 5! - 7!. \\ 75485 &:= -7! - 5! + \sqrt{4} \times 8! + 5 = 5 + 8! \times \sqrt{4} - 5! - 7!. \\ 75486 &:= -7! - 5! + \sqrt{4} \times 8! + 6 = 6 + 8! \times \sqrt{4} - 5! - 7!. \\ 75487 &:= -7! - 5! + \sqrt{4} \times 8! + 7 = 7 + 8! \times \sqrt{4} - 5! - 7!. \\ 75488 &:= -7! - 5! + \sqrt{4} \times 8! + 8 = 8 + 8! \times \sqrt{4} - 5! - 7!. \\ 75489 &:= -7! - 5! + \sqrt{4} \times 8! + 9 = 9 + 8! \times \sqrt{4} - 5! - 7!. \end{aligned}$$

$$\begin{aligned} 75840 &:= -7! + (5! + 8!) \times \sqrt{4} + 0 = 0 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75841 &:= -7! + (5! + 8!) \times \sqrt{4} + 1 = 1 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75842 &:= -7! + (5! + 8!) \times \sqrt{4} + 2 = 2 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75843 &:= -7! + (5! + 8!) \times \sqrt{4} + 3 = 3 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75844 &:= -7! + (5! + 8!) \times \sqrt{4} + 4 = 4 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75845 &:= -7! + (5! + 8!) \times \sqrt{4} + 5 = 5 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75846 &:= -7! + (5! + 8!) \times \sqrt{4} + 6 = 6 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75847 &:= -7! + (5! + 8!) \times \sqrt{4} + 7 = 7 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75848 &:= -7! + (5! + 8!) \times \sqrt{4} + 8 = 8 + \sqrt{4} \times (8! + 5!) - 7!. \\ 75849 &:= -7! + (5! + 8!) \times \sqrt{4} + 9 = 9 + \sqrt{4} \times (8! + 5!) - 7!. \end{aligned}$$

$$\begin{aligned} 80640 &:= 8! \times (06 - 4) + 0 = 0 + (-4 + 6) \times 08!. \\ 80641 &:= 8! \times (06 - 4) + 1 = 1 + (-4 + 6) \times 08!. \\ 80642 &:= 8! \times (06 - 4) + 2 = 2 + (-4 + 6) \times 08!. \\ 80643 &:= 8! \times (06 - 4) + 3 = 3 + (-4 + 6) \times 08!. \\ 80644 &:= 8! \times (06 - 4) + 4 = 4 + (-4 + 6) \times 08!. \\ 80645 &:= 8! \times (06 - 4) + 5 = 5 + (-4 + 6) \times 08!. \\ 80646 &:= 8! \times (06 - 4) + 6 = 6 + (-4 + 6) \times 08!. \\ 80647 &:= 8! \times (06 - 4) + 7 = 7 + (-4 + 6) \times 08!. \\ 80648 &:= 8! \times (06 - 4) + 8 = 8 + (-4 + 6) \times 08!. \\ 80649 &:= 8! \times (06 - 4) + 9 = 9 + (-4 + 6) \times 08!. \end{aligned}$$

$$\begin{aligned} 81360 &:= 8! \times (-1 + 3) + 6! + 0 = 0 + 6! + (3 - 1) \times 8!. \\ 81361 &:= 8! \times (-1 + 3) + 6! + 1 = 1 + 6! + (3 - 1) \times 8!. \end{aligned}$$

$$\begin{aligned}
81362 &:= 8! \times (-1 + 3) + 6! + 2 = 2 + 6! + (3 - 1) \times 8!. \\
81363 &:= 8! \times (-1 + 3) + 6! + 3 = 3 + 6! + (3 - 1) \times 8!. \\
81364 &:= 8! \times (-1 + 3) + 6! + 4 = 4 + 6! + (3 - 1) \times 8!. \\
81365 &:= 8! \times (-1 + 3) + 6! + 5 = 5 + 6! + (3 - 1) \times 8!. \\
81366 &:= 8! \times (-1 + 3) + 6! + 6 = 6 + 6! + (3 - 1) \times 8!. \\
81367 &:= 8! \times (-1 + 3) + 6! + 7 = 7 + 6! + (3 - 1) \times 8!. \\
81368 &:= 8! \times (-1 + 3) + 6! + 8 = 8 + 6! + (3 - 1) \times 8!. \\
81369 &:= 8! \times (-1 + 3) + 6! + 9 = 9 + 6! + (3 - 1) \times 8!. \\
\\
84960 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 0 = 0 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84961 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 1 = 1 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84962 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 2 = 2 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84963 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 3 = 3 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84964 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 4 = 4 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84965 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 5 = 5 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84966 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 6 = 6 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84967 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 7 = 7 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84968 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 8 = 8 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
84969 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 9 = 9 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8!. \\
\\
90720 &:= 9 \times 07! \times 2 + 0 = 0 + 2 \times 7! \times 09.
\end{aligned}$$

$$\begin{aligned}
90721 &:= 9 \times 07! \times 2 + 1 = 1 + 2 \times 7! \times 09. \\
90722 &:= 9 \times 07! \times 2 + 2 = 2 + 2 \times 7! \times 09. \\
90723 &:= 9 \times 07! \times 2 + 3 = 3 + 2 \times 7! \times 09. \\
90724 &:= 9 \times 07! \times 2 + 4 = 4 + 2 \times 7! \times 09. \\
90725 &:= 9 \times 07! \times 2 + 5 = 5 + 2 \times 7! \times 09. \\
90726 &:= 9 \times 07! \times 2 + 6 = 6 + 2 \times 7! \times 09. \\
90727 &:= 9 \times 07! \times 2 + 7 = 7 + 2 \times 7! \times 09. \\
90728 &:= 9 \times 07! \times 2 + 8 = 8 + 2 \times 7! \times 09. \\
90729 &:= 9 \times 07! \times 2 + 9 = 9 + 2 \times 7! \times 09. \\
\\
95760 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 0 = 0 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95761 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 1 = 1 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95762 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 2 = 2 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95763 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 3 = 3 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95764 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 4 = 4 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95765 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 5 = 5 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95766 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 6 = 6 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95767 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 7 = 7 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95768 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 8 = 8 + (6 + 7 + 5!) \times (\sqrt{9})!!. \\
95769 &:= (\sqrt{9})!! \times (5! + 7 + 6) + 9 = 9 + (6 + 7 + 5!) \times (\sqrt{9})!!
\end{aligned}$$

## 2.2 Symmetrical Consecutive Representations in Order of Digits

$$\begin{array}{lll}
3780 := 3! \times 7!/8 + 0. & 14408 := (1+4)!^{\sqrt{4}} + 08. & 14444 := (1+4)!^{\sqrt{4}} + 44. \\
3781 := 3! \times 7!/8 + 1. & 14409 := (1+4)!^{\sqrt{4}} + 09. & 14445 := (1+4)!^{\sqrt{4}} + 45. \\
3782 := 3! \times 7!/8 + 2. & 14410 := (1+4)!^{\sqrt{4}} + 10. & 14446 := (1+4)!^{\sqrt{4}} + 46. \\
3783 := 3! \times 7!/8 + 3. & 14411 := (1+4)!^{\sqrt{4}} + 11. & 14447 := (1+4)!^{\sqrt{4}} + 47. \\
3784 := 3! \times 7!/8 + 4. & 14412 := (1+4)!^{\sqrt{4}} + 12. & 14448 := (1+4)!^{\sqrt{4}} + 48. \\
3785 := 3! \times 7!/8 + 5. & 14413 := (1+4)!^{\sqrt{4}} + 13. & 14449 := (1+4)!^{\sqrt{4}} + 49. \\
3786 := 3! \times 7!/8 + 6. & 14414 := (1+4)!^{\sqrt{4}} + 14. & 14450 := (1+4)!^{\sqrt{4}} + 50. \\
3787 := 3! \times 7!/8 + 7. & 14415 := (1+4)!^{\sqrt{4}} + 15. & 14451 := (1+4)!^{\sqrt{4}} + 51. \\
3788 := 3! \times 7!/8 + 8. & 14416 := (1+4)!^{\sqrt{4}} + 16. & 14452 := (1+4)!^{\sqrt{4}} + 52. \\
3789 := 3! \times 7!/8 + 9. & 14417 := (1+4)!^{\sqrt{4}} + 17. & 14453 := (1+4)!^{\sqrt{4}} + 53. \\
\\
14400 := (1+4)!^{\sqrt{4}} + 00. & 14418 := (1+4)!^{\sqrt{4}} + 18. & 14454 := (1+4)!^{\sqrt{4}} + 54. \\
14401 := (1+4)!^{\sqrt{4}} + 01. & 14419 := (1+4)!^{\sqrt{4}} + 19. & 14455 := (1+4)!^{\sqrt{4}} + 55. \\
14402 := (1+4)!^{\sqrt{4}} + 02. & 14420 := (1+4)!^{\sqrt{4}} + 20. & 14456 := (1+4)!^{\sqrt{4}} + 56. \\
14403 := (1+4)!^{\sqrt{4}} + 03. & 14421 := (1+4)!^{\sqrt{4}} + 21. & 14457 := (1+4)!^{\sqrt{4}} + 57. \\
14404 := (1+4)!^{\sqrt{4}} + 04. & 14422 := (1+4)!^{\sqrt{4}} + 22. & 14458 := (1+4)!^{\sqrt{4}} + 58. \\
14405 := (1+4)!^{\sqrt{4}} + 05. & 14423 := (1+4)!^{\sqrt{4}} + 23. & 14459 := (1+4)!^{\sqrt{4}} + 59. \\
14406 := (1+4)!^{\sqrt{4}} + 06. & 14424 := (1+4)!^{\sqrt{4}} + 24. & 14460 := (1+4)!^{\sqrt{4}} + 60. \\
14407 := (1+4)!^{\sqrt{4}} + 07. & 14425 := (1+4)!^{\sqrt{4}} + 25. & 14461 := (1+4)!^{\sqrt{4}} + 61. \\
\end{array}$$

$14463 := (1+4)!^{\sqrt{4}} + 63.$	$14473 := (1+4)!^{\sqrt{4}} + 73.$	$14483 := (1+4)!^{\sqrt{4}} + 83.$	$14493 := (1+4)!^{\sqrt{4}} + 93.$
$14464 := (1+4)!^{\sqrt{4}} + 64.$	$14474 := (1+4)!^{\sqrt{4}} + 74.$	$14484 := (1+4)!^{\sqrt{4}} + 84.$	$14494 := (1+4)!^{\sqrt{4}} + 94.$
$14465 := (1+4)!^{\sqrt{4}} + 65.$	$14475 := (1+4)!^{\sqrt{4}} + 75.$	$14485 := (1+4)!^{\sqrt{4}} + 85.$	
$14466 := (1+4)!^{\sqrt{4}} + 66.$	$14476 := (1+4)!^{\sqrt{4}} + 76.$	$14486 := (1+4)!^{\sqrt{4}} + 86.$	$14495 := (1+4)!^{\sqrt{4}} + 95.$
$14467 := (1+4)!^{\sqrt{4}} + 67.$	$14477 := (1+4)!^{\sqrt{4}} + 77.$	$14487 := (1+4)!^{\sqrt{4}} + 87.$	$14496 := (1+4)!^{\sqrt{4}} + 96.$
$14468 := (1+4)!^{\sqrt{4}} + 68.$	$14478 := (1+4)!^{\sqrt{4}} + 78.$	$14488 := (1+4)!^{\sqrt{4}} + 88.$	
$14469 := (1+4)!^{\sqrt{4}} + 69.$	$14479 := (1+4)!^{\sqrt{4}} + 79.$	$14489 := (1+4)!^{\sqrt{4}} + 89.$	$14497 := (1+4)!^{\sqrt{4}} + 97.$
$14470 := (1+4)!^{\sqrt{4}} + 70.$	$14480 := (1+4)!^{\sqrt{4}} + 80.$	$14490 := (1+4)!^{\sqrt{4}} + 90.$	
$14471 := (1+4)!^{\sqrt{4}} + 71.$	$14481 := (1+4)!^{\sqrt{4}} + 81.$	$14491 := (1+4)!^{\sqrt{4}} + 91.$	$14498 := (1+4)!^{\sqrt{4}} + 98.$
$14472 := (1+4)!^{\sqrt{4}} + 72.$	$14482 := (1+4)!^{\sqrt{4}} + 82.$	$14492 := (1+4)!^{\sqrt{4}} + 92.$	$14499 := (1+4)!^{\sqrt{4}} + 99.$

$14520 := (1+4)! + 5!^2 + 0.$	$38441 := (3! + 8)^4 + 4! + 1.$	$46681 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 1.$
$14521 := (1+4)! + 5!^2 + 1.$	$38442 := (3! + 8)^4 + 4! + 2.$	$46682 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 2.$
$14522 := (1+4)! + 5!^2 + 2.$	$38443 := (3! + 8)^4 + 4! + 3.$	$46683 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 3.$
$14523 := (1+4)! + 5!^2 + 3.$	$38444 := (3! + 8)^4 + 4! + 4.$	$46684 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 4.$
$14524 := (1+4)! + 5!^2 + 4.$	$38445 := (3! + 8)^4 + 4! + 5.$	$46685 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 5.$
$14525 := (1+4)! + 5!^2 + 5.$	$38446 := (3! + 8)^4 + 4! + 6.$	$46686 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 6.$
$14526 := (1+4)! + 5!^2 + 6.$	$38447 := (3! + 8)^4 + 4! + 7.$	$46687 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 7.$
$14527 := (1+4)! + 5!^2 + 7.$	$38448 := (3! + 8)^4 + 4! + 8.$	$46688 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 8.$
$14528 := (1+4)! + 5!^2 + 8.$	$38449 := (3! + 8)^4 + 4! + 9.$	
$14529 := (1+4)! + 5!^2 + 9.$		
$15630 := -1 + 5^6 + 3! + 0.$	$38760 := -3!! + 8! - 7!/6 + 0.$	$46689 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 9.$
$15631 := -1 + 5^6 + 3! + 1.$	$38761 := -3!! + 8! - 7!/6 + 1.$	
$15632 := -1 + 5^6 + 3! + 2.$	$38762 := -3!! + 8! - 7!/6 + 2.$	$51840 := 5! \times 18 \times 4! + 0.$
$15633 := -1 + 5^6 + 3! + 3.$	$38763 := -3!! + 8! - 7!/6 + 3.$	$51841 := 5! \times 18 \times 4! + 1.$
$15634 := -1 + 5^6 + 3! + 4.$	$38764 := -3!! + 8! - 7!/6 + 4.$	$51842 := 5! \times 18 \times 4! + 2.$
$15635 := -1 + 5^6 + 3! + 5.$	$38765 := -3!! + 8! - 7!/6 + 5.$	$51843 := 5! \times 18 \times 4! + 3.$
$15636 := -1 + 5^6 + 3! + 6.$	$38766 := -3!! + 8! - 7!/6 + 6.$	$51844 := 5! \times 18 \times 4! + 4.$
$15637 := -1 + 5^6 + 3! + 7.$	$38767 := -3!! + 8! - 7!/6 + 7.$	$51845 := 5! \times 18 \times 4! + 5.$
$15638 := -1 + 5^6 + 3! + 8.$	$38768 := -3!! + 8! - 7!/6 + 8.$	$51846 := 5! \times 18 \times 4! + 6.$
$15639 := -1 + 5^6 + 3! + 9.$	$38769 := -3!! + 8! - 7!/6 + 9.$	$51847 := 5! \times 18 \times 4! + 7.$
$38440 := (3! + 8)^4 + 4! + 0.$	$46680 := 4! + 6\sqrt{\sqrt{\sqrt{6^8}}} + 0.$	$51848 := 5! \times 18 \times 4! + 8.$
		$51849 := 5! \times 18 \times 4! + 9.$

64800 := $6!^{\sqrt{4}}/8 + 00.$	64823 := $6!^{\sqrt{4}}/8 + 23.$	64856 := $6!^{\sqrt{4}}/8 + 56.$	64879 := $6!^{\sqrt{4}}/8 + 79.$
64801 := $6!^{\sqrt{4}}/8 + 01.$	64824 := $6!^{\sqrt{4}}/8 + 24.$	64857 := $6!^{\sqrt{4}}/8 + 57.$	64880 := $6!^{\sqrt{4}}/8 + 80.$
64802 := $6!^{\sqrt{4}}/8 + 02.$	64825 := $6!^{\sqrt{4}}/8 + 25.$	64858 := $6!^{\sqrt{4}}/8 + 58.$	64881 := $6!^{\sqrt{4}}/8 + 81.$
64803 := $6!^{\sqrt{4}}/8 + 03.$	64826 := $6!^{\sqrt{4}}/8 + 26.$	64859 := $6!^{\sqrt{4}}/8 + 59.$	64882 := $6!^{\sqrt{4}}/8 + 82.$
64804 := $6!^{\sqrt{4}}/8 + 04.$	64827 := $6!^{\sqrt{4}}/8 + 27.$	64860 := $6!^{\sqrt{4}}/8 + 60.$	64883 := $6!^{\sqrt{4}}/8 + 83.$
64805 := $6!^{\sqrt{4}}/8 + 05.$	64828 := $6!^{\sqrt{4}}/8 + 28.$	64861 := $6!^{\sqrt{4}}/8 + 61.$	64884 := $6!^{\sqrt{4}}/8 + 84.$
64806 := $6!^{\sqrt{4}}/8 + 06.$	64829 := $6!^{\sqrt{4}}/8 + 29.$	64862 := $6!^{\sqrt{4}}/8 + 62.$	64885 := $6!^{\sqrt{4}}/8 + 85.$
64807 := $6!^{\sqrt{4}}/8 + 07.$	64830 := $6!^{\sqrt{4}}/8 + 30.$	64863 := $6!^{\sqrt{4}}/8 + 63.$	64886 := $6!^{\sqrt{4}}/8 + 86.$
64808 := $6!^{\sqrt{4}}/8 + 08.$	64831 := $6!^{\sqrt{4}}/8 + 31.$	64864 := $6!^{\sqrt{4}}/8 + 64.$	64887 := $6!^{\sqrt{4}}/8 + 87.$
64809 := $6!^{\sqrt{4}}/8 + 09.$	64832 := $6!^{\sqrt{4}}/8 + 32.$	64865 := $6!^{\sqrt{4}}/8 + 65.$	64888 := $6!^{\sqrt{4}}/8 + 88.$
64810 := $6!^{\sqrt{4}}/8 + 10.$	64833 := $6!^{\sqrt{4}}/8 + 33.$	64866 := $6!^{\sqrt{4}}/8 + 66.$	64889 := $6!^{\sqrt{4}}/8 + 89.$
64811 := $6!^{\sqrt{4}}/8 + 11.$	64834 := $6!^{\sqrt{4}}/8 + 34.$	64867 := $6!^{\sqrt{4}}/8 + 67.$	64890 := $6!^{\sqrt{4}}/8 + 90.$
64812 := $6!^{\sqrt{4}}/8 + 12.$	64835 := $6!^{\sqrt{4}}/8 + 35.$	64868 := $6!^{\sqrt{4}}/8 + 68.$	64891 := $6!^{\sqrt{4}}/8 + 91.$
64813 := $6!^{\sqrt{4}}/8 + 13.$	64836 := $6!^{\sqrt{4}}/8 + 36.$	64869 := $6!^{\sqrt{4}}/8 + 69.$	64892 := $6!^{\sqrt{4}}/8 + 92.$
64814 := $6!^{\sqrt{4}}/8 + 14.$	64837 := $6!^{\sqrt{4}}/8 + 37.$	64870 := $6!^{\sqrt{4}}/8 + 70.$	64893 := $6!^{\sqrt{4}}/8 + 93.$
64815 := $6!^{\sqrt{4}}/8 + 15.$	64838 := $6!^{\sqrt{4}}/8 + 38.$	64871 := $6!^{\sqrt{4}}/8 + 71.$	64894 := $6!^{\sqrt{4}}/8 + 94.$
64816 := $6!^{\sqrt{4}}/8 + 16.$	64839 := $6!^{\sqrt{4}}/8 + 39.$	64872 := $6!^{\sqrt{4}}/8 + 72.$	64895 := $6!^{\sqrt{4}}/8 + 95.$
64817 := $6!^{\sqrt{4}}/8 + 17.$	64850 := $6!^{\sqrt{4}}/8 + 50.$	64873 := $6!^{\sqrt{4}}/8 + 73.$	64896 := $6!^{\sqrt{4}}/8 + 96.$
64818 := $6!^{\sqrt{4}}/8 + 18.$	64851 := $6!^{\sqrt{4}}/8 + 51.$	64874 := $6!^{\sqrt{4}}/8 + 74.$	64897 := $6!^{\sqrt{4}}/8 + 97.$
64819 := $6!^{\sqrt{4}}/8 + 19.$	64852 := $6!^{\sqrt{4}}/8 + 52.$	64875 := $6!^{\sqrt{4}}/8 + 75.$	64898 := $6!^{\sqrt{4}}/8 + 98.$
64820 := $6!^{\sqrt{4}}/8 + 20.$	64853 := $6!^{\sqrt{4}}/8 + 53.$	64876 := $6!^{\sqrt{4}}/8 + 76.$	64899 := $6!^{\sqrt{4}}/8 + 99.$
64821 := $6!^{\sqrt{4}}/8 + 21.$	64854 := $6!^{\sqrt{4}}/8 + 54.$	64877 := $6!^{\sqrt{4}}/8 + 77.$	
64822 := $6!^{\sqrt{4}}/8 + 22.$	64855 := $6!^{\sqrt{4}}/8 + 55.$	64878 := $6!^{\sqrt{4}}/8 + 78.$	

64980 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 0.$	83521 := $8! + 3 \times 5!^2 + 1.$	87362 := $8! \times (7 + 3!)/6 + 2.$
64981 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 1.$	83522 := $8! + 3 \times 5!^2 + 2.$	87363 := $8! \times (7 + 3!)/6 + 3.$
64982 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 2.$	83523 := $8! + 3 \times 5!^2 + 3.$	87364 := $8! \times (7 + 3!)/6 + 4.$
64983 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 3.$	83524 := $8! + 3 \times 5!^2 + 4.$	87365 := $8! \times (7 + 3!)/6 + 5.$
64984 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 4.$	83525 := $8! + 3 \times 5!^2 + 5.$	87366 := $8! \times (7 + 3!)/6 + 6.$
64985 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 5.$	83526 := $8! + 3 \times 5!^2 + 6.$	87367 := $8! \times (7 + 3!)/6 + 7.$
64986 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 6.$	83527 := $8! + 3 \times 5!^2 + 7.$	87368 := $8! \times (7 + 3!)/6 + 8.$
64987 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 7.$	83528 := $8! + 3 \times 5!^2 + 8.$	87369 := $8! \times (7 + 3!)/6 + 9.$
64988 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 8.$	83529 := $8! + 3 \times 5!^2 + 9.$	90540 := $(9! - (0! + 5!))/4 + 0.$
64989 := $(6! + \sqrt{4}) \times (\sqrt{9})!!/8 + 9.$	87360 := $8! \times (7 + 3!)/6 + 0.$	90541 := $(9! - (0! + 5!))/4 + 1.$
83520 := $8! + 3 \times 5!^2 + 0.$	87361 := $8! \times (7 + 3!)/6 + 1.$	90542 := $(9! - (0! + 5!))/4 + 2.$

$$90543 := (9! - (0! + 5!))/4 + 3.$$

$$90544 := (9! - (0! + 5!))/4 + 4.$$

$$90545 := (9! - (0! + 5!))/4 + 5.$$

$$90546 := (9! - (0! + 5!))/4 + 6.$$

$$90547 := (9! - (0! + 5!))/4 + 7.$$

$$90548 := (9! - (0! + 5!))/4 + 8.$$

$$90549 := (9! - (0! + 5!))/4 + 9.$$

$$92160 := (\sqrt{9})!! \times 2^{1+6} + 0.$$

$$92161 := (\sqrt{9})!! \times 2^{1+6} + 1.$$

$$92162 := (\sqrt{9})!! \times 2^{1+6} + 2.$$

$$92163 := (\sqrt{9})!! \times 2^{1+6} + 3.$$

$$92164 := (\sqrt{9})!! \times 2^{1+6} + 4.$$

$$92165 := (\sqrt{9})!! \times 2^{1+6} + 5.$$

$$92166 := (\sqrt{9})!! \times 2^{1+6} + 6.$$

$$92167 := (\sqrt{9})!! \times 2^{1+6} + 7.$$

$$92168 := (\sqrt{9})!! \times 2^{1+6} + 8.$$

$$92169 := (\sqrt{9})!! \times 2^{1+6} + 9.$$

### 2.3 Symmetrical Consecutive Representations in Reverse Order

$$7920 := 0 + (2 + 9)!/7!.$$

$$7921 := 1 + (2 + 9)!/7!.$$

$$7922 := 2 + (2 + 9)!/7!.$$

$$7923 := 3 + (2 + 9)!/7!.$$

$$7924 := 4 + (2 + 9)!/7!.$$

$$7925 := 5 + (2 + 9)!/7!.$$

$$7926 := 6 + (2 + 9)!/7!.$$

$$7927 := 7 + (2 + 9)!/7!.$$

$$7928 := 8 + (2 + 9)!/7!.$$

$$7929 := 9 + (2 + 9)!/7!.$$

$$13440 := 0 + (4 + 4)!/3 \times 1.$$

$$13441 := 1 + (4 + 4)!/3 \times 1.$$

$$13442 := 2 + (4 + 4)!/3 \times 1.$$

$$13443 := 3 + (4 + 4)!/3 \times 1.$$

$$13444 := 4 + (4 + 4)!/3 \times 1.$$

$$13445 := 5 + (4 + 4)!/3 \times 1.$$

$$13446 := 6 + (4 + 4)!/3 \times 1.$$

$$13447 := 7 + (4 + 4)!/3 \times 1.$$

$$13448 := 8 + (4 + 4)!/3 \times 1.$$

$$13449 := 9 + (4 + 4)!/3 \times 1.$$

$$13680 := 0 + (8! + 6!)/3 \times 1.$$

$$13681 := 1 + (8! + 6!)/3 \times 1.$$

$$13682 := 2 + (8! + 6!)/3 \times 1.$$

$$13683 := 3 + (8! + 6!)/3 \times 1.$$

$$13684 := 4 + (8! + 6!)/3 \times 1.$$

$$13685 := 5 + (8! + 6!)/3 \times 1.$$

$$13686 := 6 + (8! + 6!)/3 \times 1.$$

$$13687 := 7 + (8! + 6!)/3 \times 1.$$

$$13688 := 8 + (8! + 6!)/3 \times 1.$$

$$13689 := 9 + (8! + 6!)/3 \times 1.$$

$$15120 := 0 + 21 \times (5 + 1)!.$$

$$15121 := 1 + 21 \times (5 + 1)!.$$

$$15122 := 2 + 21 \times (5 + 1)!.$$

$$15123 := 3 + 21 \times (5 + 1)!.$$

$$15124 := 4 + 21 \times (5 + 1)!.$$

$$15125 := 5 + 21 \times (5 + 1)!.$$

$$15126 := 6 + 21 \times (5 + 1)!.$$

$$15127 := 7 + 21 \times (5 + 1)!.$$

$$15128 := 8 + 21 \times (5 + 1)!.$$

$$15129 := 9 + 21 \times (5 + 1)!.$$

$$20160 := 0 + (6 + 1 + 0!)/2.$$

$$20161 := 1 + (6 + 1 + 0!)/2.$$

$$20162 := 2 + (6 + 1 + 0!)/2.$$

$$20163 := 3 + (6 + 1 + 0!)/2.$$

$$20164 := 4 + (6 + 1 + 0!)/2.$$

$$20165 := 5 + (6 + 1 + 0!)/2.$$

$$20166 := 6 + (6 + 1 + 0!)/2.$$

$$20167 := 7 + (6 + 1 + 0!)/2.$$

$$20168 := 8 + (6 + 1 + 0!)/2.$$

$$20169 := 9 + (6 + 1 + 0!)/2.$$

$$23040 := 0 + (4 - 0!)!! \times 32.$$

$$23041 := 1 + (4 - 0!)!! \times 32.$$

$$23042 := 2 + (4 - 0!)!! \times 32.$$

$$23043 := 3 + (4 - 0!)!! \times 32.$$

$$23044 := 4 + (4 - 0!)!! \times 32.$$

$$23045 := 5 + (4 - 0!)!! \times 32.$$

$$23046 := 6 + (4 - 0!)!! \times 32.$$

$$23047 := 7 + (4 - 0!)!! \times 32.$$

$$23048 := 8 + (4 - 0!)!! \times 32.$$

$$23049 := 9 + (4 - 0!)!! \times 32.$$

$$23340 := 0 + (4! + 3!^{3!})/2.$$

$$23341 := 1 + (4! + 3!^{3!})/2.$$

$$23342 := 2 + (4! + 3!^{3!})/2.$$

$$23343 := 3 + (4! + 3!^{3!})/2.$$

$$23344 := 4 + (4! + 3!^{3!})/2.$$

$$23345 := 5 + (4! + 3!^{3!})/2.$$

$$23346 := 6 + (4! + 3!^{3!})/2.$$

$$23347 := 7 + (4! + 3!^{3!})/2.$$

$$23348 := 8 + (4! + 3!^{3!})/2.$$

$$23349 := 9 + (4! + 3!^{3!})/2.$$

$$26880 := 0 + 8 \times 8!/(6 \times 2).$$

$$26881 := 1 + 8 \times 8!/(6 \times 2).$$

$$26882 := 2 + 8 \times 8!/(6 \times 2).$$

$$26883 := 3 + 8 \times 8!/(6 \times 2).$$

$$26884 := 4 + 8 \times 8!/(6 \times 2).$$

$$26885 := 5 + 8 \times 8!/(6 \times 2).$$

$$26886 := 6 + 8 \times 8!/(6 \times 2).$$

$$26887 := 7 + 8 \times 8!/(6 \times 2).$$

$$26888 := 8 + 8 \times 8!/(6 \times 2).$$

$$26889 := 9 + 8 \times 8!/(6 \times 2).$$

$$33840 := 0 + 48 \times 3!! - 3!!.$$

$$33841 := 1 + 48 \times 3!! - 3!!.$$

$33842 := 2 + 48 \times 3!! - 3!!.$	$40686 := 6 + 8! + 6!/\sqrt{04}.$	$57960 := 0 + 69 \times 7 \times 5!!.$
$33843 := 3 + 48 \times 3!! - 3!!.$	$40687 := 7 + 8! + 6!/\sqrt{04}.$	$57961 := 1 + 69 \times 7 \times 5!!.$
$33844 := 4 + 48 \times 3!! - 3!!.$	$40688 := 8 + 8! + 6!/\sqrt{04}.$	$57962 := 2 + 69 \times 7 \times 5!!.$
$33845 := 5 + 48 \times 3!! - 3!!.$	$40689 := 9 + 8! + 6!/\sqrt{04}.$	$57963 := 3 + 69 \times 7 \times 5!!.$
$33846 := 6 + 48 \times 3!! - 3!!.$	$43560 := 0 + (6! + 5! \times 3!!)/\sqrt{4}.$	$57964 := 4 + 69 \times 7 \times 5!!.$
$33847 := 7 + 48 \times 3!! - 3!!.$	$43561 := 1 + (6! + 5! \times 3!!)/\sqrt{4}.$	$57965 := 5 + 69 \times 7 \times 5!!.$
$33848 := 8 + 48 \times 3!! - 3!!.$	$43562 := 2 + (6! + 5! \times 3!!)/\sqrt{4}.$	$57966 := 6 + 69 \times 7 \times 5!!.$
$33849 := 9 + 48 \times 3!! - 3!!.$	$43563 := 3 + (6! + 5! \times 3!!)/\sqrt{4}.$	$57967 := 7 + 69 \times 7 \times 5!!.$
$38160 := 0 + (61 - 8) \times 3!!.$	$43564 := 4 + (6! + 5! \times 3!!)/\sqrt{4}.$	$57968 := 8 + 69 \times 7 \times 5!!.$
$38161 := 1 + (61 - 8) \times 3!!.$	$43565 := 5 + (6! + 5! \times 3!!)/\sqrt{4}.$	$57969 := 9 + 69 \times 7 \times 5!!.$
$38162 := 2 + (61 - 8) \times 3!!.$	$43566 := 6 + (6! + 5! \times 3!!)/\sqrt{4}.$	$59050 := 0 + (5 \times 0)! + 9^5.$
$38163 := 3 + (61 - 8) \times 3!!.$	$43567 := 7 + (6! + 5! \times 3!!)/\sqrt{4}.$	$59051 := 1 + (5 \times 0)! + 9^5.$
$38164 := 4 + (61 - 8) \times 3!!.$	$43568 := 8 + (6! + 5! \times 3!!)/\sqrt{4}.$	$59052 := 2 + (5 \times 0)! + 9^5.$
$38165 := 5 + (61 - 8) \times 3!!.$	$43569 := 9 + (6! + 5! \times 3!!)/\sqrt{4}.$	$59053 := 3 + (5 \times 0)! + 9^5.$
$38166 := 6 + (61 - 8) \times 3!!.$	$53240 := 0 + (4! - 2)^3 \times 5.$	$59054 := 4 + (5 \times 0)! + 9^5.$
$38167 := 7 + (61 - 8) \times 3!!.$	$53241 := 1 + (4! - 2)^3 \times 5.$	$59055 := 5 + (5 \times 0)! + 9^5.$
$38168 := 8 + (61 - 8) \times 3!!.$	$53242 := 2 + (4! - 2)^3 \times 5.$	$59056 := 6 + (5 \times 0)! + 9^5.$
$38169 := 9 + (61 - 8) \times 3!!.$	$53243 := 3 + (4! - 2)^3 \times 5.$	$59057 := 7 + (5 \times 0)! + 9^5.$
$39840 := 0 + 4! + 8! - 9!/3!!.$	$53244 := 4 + (4! - 2)^3 \times 5.$	$59058 := 8 + (5 \times 0)! + 9^5.$
$39841 := 1 + 4! + 8! - 9!/3!!.$	$53245 := 5 + (4! - 2)^3 \times 5..$	$59059 := 9 + (5 \times 0)! + 9^5.$
$39842 := 2 + 4! + 8! - 9!/3!!.$	$53246 := 6 + (4! - 2)^3 \times 5.$	$69120 := 0 + (2 + 1)!! \times 96.$
$39843 := 3 + 4! + 8! - 9!/3!!.$	$53247 := 7 + (4! - 2)^3 \times 5.$	$69121 := 1 + (2 + 1)!! \times 96.$
$39844 := 4 + 4! + 8! - 9!/3!!.$	$53248 := 8 + (4! - 2)^3 \times 5.$	$69122 := 2 + (2 + 1)!! \times 96.$
$39845 := 5 + 4! + 8! - 9!/3!!.$	$53249 := 9 + (4! - 2)^3 \times 5.$	$69123 := 3 + (2 + 1)!! \times 96.$
$39846 := 6 + 4! + 8! - 9!/3!!.$	$53880 := 0 + 8! + 8!/3 + 5!.$	$69124 := 4 + (2 + 1)!! \times 96.$
$39847 := 7 + 4! + 8! - 9!/3!!.$	$53881 := 1 + 8! + 8!/3 + 5!.$	$69125 := 5 + (2 + 1)!! \times 96.$
$39848 := 8 + 4! + 8! - 9!/3!!.$	$53882 := 2 + 8! + 8!/3 + 5!.$	$69126 := 6 + (2 + 1)!! \times 96.$
$39849 := 9 + 4! + 8! - 9!/3!!.$	$53883 := 3 + 8! + 8!/3 + 5!.$	$69127 := 7 + (2 + 1)!! \times 96.$
$40680 := 0 + 8! + 6!/\sqrt{04}.$	$53884 := 4 + 8! + 8!/3 + 5!.$	$69128 := 8 + (2 + 1)!! \times 96.$
$40681 := 1 + 8! + 6!/\sqrt{04}.$	$53885 := 5 + 8! + 8!/3 + 5!.$	$69129 := 9 + (2 + 1)!! \times 96.$
$40682 := 2 + 8! + 6!/\sqrt{04}.$	$53886 := 6 + 8! + 8!/3 + 5!.$	$72590 := 0 + 9!/5 + 2 \times 7.$
$40683 := 3 + 8! + 6!/\sqrt{04}.$	$53887 := 7 + 8! + 8!/3 + 5!.$	$72591 := 1 + 9!/5 + 2 \times 7.$
$40684 := 4 + 8! + 6!/\sqrt{04}.$	$53888 := 8 + 8! + 8!/3 + 5!.$	$72592 := 2 + 9!/5 + 2 \times 7.$
$40685 := 5 + 8! + 6!/\sqrt{04}.$	$53889 := 9 + 8! + 8!/3 + 5!.$	$72593 := 3 + 9!/5 + 2 \times 7.$

$$\begin{array}{lll}
72596 := 6 + 9!/5 + 2 \times 7. & 80540 := 0 + \sqrt{4} \times (-50 + 8!). & 80545 := 5 + \sqrt{4} \times (-50 + 8!). \\
72597 := 7 + 9!/5 + 2 \times 7. & 80541 := 1 + \sqrt{4} \times (-50 + 8!). & 80546 := 6 + \sqrt{4} \times (-50 + 8!). \\
72598 := 8 + 9!/5 + 2 \times 7. & 80542 := 2 + \sqrt{4} \times (-50 + 8!). & 80547 := 7 + \sqrt{4} \times (-50 + 8!). \\
72599 := 9 + 9!/5 + 2 \times 7. & 80543 := 3 + \sqrt{4} \times (-50 + 8!). & 80548 := 8 + \sqrt{4} \times (-50 + 8!). \\
& 80544 := 4 + \sqrt{4} \times (-50 + 8!). & 80549 := 9 + \sqrt{4} \times (-50 + 8!).
\end{array}$$

$$\begin{array}{ll}
86400 := 0 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. & 86405 := 5 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. \\
86401 := 1 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. & 86406 := 6 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. \\
86402 := 2 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. & 86407 := 7 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. \\
86403 := 3 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. & 86408 := 8 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. \\
86404 := 4 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. & 86409 := 9 + (0! + 4)! \times \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!.
\end{array}$$

### 3 Symmetrical Representations in Increasing and Decreasing Orders of Digits

This section is divided in three subsections. The first one is for representations on both ways, i.e., increasing and decreasing order of digits. Second is in increasing order of digits and third one is in decreasing order of digits. We observe that in case of increasing and decreasing order of digits the numbers are not in a proper sequential way as in previous section. Symmetrical consecutive representations are in short parts.

#### 3.1 Symmetrical Representations in Both Ways – Increasing and Decreasing Order of Digits Jointly

$$\begin{array}{ll}
720 := 0 + (\sqrt{2+7})!! = (\sqrt{7+2})!! + 0. & 2161 := 1 + (1+2) \times 6! = 6! \times (2+1) + 1. \\
721 := 1 + (\sqrt{2+7})!! = (\sqrt{7+2})!! + 1. & 2166 := (1+2) \times 6! + 6 = 6 + 6! \times (2+1). \\
722 := 2 + (\sqrt{2+7})!! = (\sqrt{7+2})!! + 2. & 2167 := (1+2) \times 6! + 7 = 7 + 6! \times (2+1). \\
727 := (\sqrt{2+7})!! + 7 = 7 + (\sqrt{7+2})!!. & 2168 := (1+2) \times 6! + 8 = 8 + 6! \times (2+1). \\
728 := (\sqrt{2+7})!! + 8 = 8 + (\sqrt{7+2})!!. & 2169 := (1+2) \times 6! + 9 = 9 + 6! \times (2+1). \\
729 := (\sqrt{2+7})!! + 9 = 9 + (\sqrt{7+2})!!. & 3600 := 0 + (-0! + 3!) \times 6! = 6! \times (3! - 0!) + 0. \\
1444 := (-1+4)!! \times \sqrt{4} + 4 = 4 + \sqrt{4} \times (4-1)!!. & 3601 := 0! + (-1+3!) \times 6! = 6! \times (3! - 1) + 0!. \\
1445 := (-1+4)!! \times \sqrt{4} + 5 = 5 + \sqrt{4} \times (4-1)!!. & 3606 := (-0! + 3!) \times 6! + 6 = 6 + 6! \times (3! - 0!). \\
1446 := (-1+4)!! \times \sqrt{4} + 6 = 6 + \sqrt{4} \times (4-1)!!. & 3607 := (-0! + 3!) \times 6! + 7 = 7 + 6! \times (3! - 0!). \\
1447 := (-1+4)!! \times \sqrt{4} + 7 = 7 + \sqrt{4} \times (4-1)!!. & 3608 := (-0! + 3!) \times 6! + 8 = 8 + 6! \times (3! - 0!). \\
1448 := (-1+4)!! \times \sqrt{4} + 8 = 8 + \sqrt{4} \times (4-1)!!. & 3609 := (-0! + 3!) \times 6! + 9 = 9 + 6! \times (3! - 0!). \\
1449 := (-1+4)!! \times \sqrt{4} + 9 = 9 + \sqrt{4} \times (4-1)!!. & 5034 := -0! + (3+4)! - 5 = -5 + (4+3)! - 0!. \\
2160 := 0 + (1+2) \times 6! = 6! \times (2+1) + 0. & 5035 := (-0! + 3+5)! - 5 = -5 + (5+3-0)!.
\end{array}$$

$$5040 := 00 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 0 \times 0!.$$

$$5041 := 01 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 1 \times 0!.$$

$$5042 := 02 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 2 \times 0!.$$

$$5043 := 03 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 3 \times 0!.$$

$$5044 := 04 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 4 \times 0!.$$

$$5045 := (\sqrt{04} + 5)! + 5 = 5 + (5 + \sqrt{4})! \times 0!.$$

$$5046 := (\sqrt{04} + 5)! + 6 = 6 + (5 + \sqrt{4})! \times 0!.$$

$$5047 := (\sqrt{04} + 5)! + 7 = 7 + (5 + \sqrt{4})! \times 0!.$$

$$5048 := (\sqrt{04} + 5)! + 8 = 8 + (5 + \sqrt{4})! \times 0!.$$

$$5049 := (\sqrt{04} + 5)! + 9 = 9 + (5 + \sqrt{4})! \times 0!.$$

$$5760 := 0 + 5! \times 6 + 7! = 7! + 6 \times 5! + 0.$$

$$5761 := 1 + 5! \times 6 + 7! = 7! + 6 \times 5! + 1.$$

$$5762 := 2 + 5! \times 6 + 7! = 7! + 6 \times 5! + 2.$$

$$5763 := 3 + 5! \times 6 + 7! = 7! + 6 \times 5! + 3.$$

$$5764 := 4 + 5! \times 6 + 7! = 7! + 6 \times 5! + 4.$$

$$5765 := 5 + 5! \times 6 + 7! = 7! + 6 \times 5! + 5.$$

$$5766 := 5! \times 6 + 6 + 7! = 7! + 6 + 6 \times 5!.$$

$$5767 := 5! \times 6 + 7 + 7! = 7! + 7 + 6 \times 5!.$$

$$5768 := 5! \times 6 + 7! + 8 = 8 + 7! + 6 \times 5!.$$

$$5769 := 5! \times 6 + 7! + 9 = 9 + 7! + 6 \times 5!.$$

$$16566 := (-1 + 5)! \times 6! - 6! + 6 = 6 - 6! + 6! \times (5 - 1)!.$$

$$16567 := (-1 + 5)! \times 6! - 6! + 7 = 7 - 6! + 6! \times (5 - 1)!.$$

$$16568 := (-1 + 5)! \times 6! - 6! + 8 = 8 - 6! + 6! \times (5 - 1)!.$$

$$16569 := (-1 + 5)! \times 6! - 6! + 9 = 9 - 6! + 6! \times (5 - 1)!.$$

$$19690 := 0 + 1 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 1 + 0.$$

$$19691 := 1 + 1 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 1 + 1.$$

$$19692 := 1 + 2 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 2 + 1.$$

$$19693 := 1 + 3 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 3 + 1.$$

$$19694 := 1 + 4 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 4 + 1.$$

$$19695 := 1 + 5 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 5 + 1.$$

$$19696 := 1 + 6 + 6 + \sqrt{9^9} = \sqrt{9^9} + 6 + 6 + 1.$$

$$19697 := 1 + 6 + 7 + \sqrt{9^9} = \sqrt{9^9} + 7 + 6 + 1.$$

$$19698 := 1 + 6 + 8 + \sqrt{9^9} = \sqrt{9^9} + 8 + 6 + 1.$$

$$19699 := 1 + 6 + 9 + \sqrt{9^9} = \sqrt{9^9} + 9 + 6 + 1.$$

$$30240 := 0 + (0! + 2)! \times (3 + 4)! = (4 + 3)! \times (2 + 1)! + 0.$$

$$30241 := 0! + (1 + 2)! \times (3 + 4)! = (4 + 3)! \times (2 + 1)! + 0!.$$

$$30244 := (0! + 2)! \times (3 + 4)! + 4 = 4 + (4 + 3)! \times (2 + 0)!.$$

$$30245 := (0! + 2)! \times (3 + 4)! + 5 = 5 + (4 + 3)! \times (2 + 0)!.$$

$$30246 := (0! + 2)! \times (3 + 4)! + 6 = 6 + (4 + 3)! \times (2 + 0)!.$$

$$30247 := (0! + 2)! \times (3 + 4)! + 7 = 7 + (4 + 3)! \times (2 + 0)!.$$

$$30248 := (0! + 2)! \times (3 + 4)! + 8 = 8 + (4 + 3)! \times (2 + 0)!.$$

$$30249 := (0! + 2)! \times (3 + 4)! + 9 = 9 + (4 + 3)! \times (2 + 0)!.$$

$$34560 := 0 + (3 + 45) \times 6! = 6! \times (5 + 43) + 0.$$

$$34561 := 1 + (3 + 45) \times 6! = 6! \times (5 + 43) + 1.$$

$$34562 := 2 + (3 + 45) \times 6! = 6! \times (5 + 43) + 2.$$

$$34563 := 3 + (3 + 45) \times 6! = 6! \times (5 + 43) + 3.$$

$$34566 := (3 + 45) \times 6! + 6 = 6 + 6! \times (5 + 43).$$

$$34567 := (3 + 45) \times 6! + 7 = 7 + 6! \times (5 + 43).$$

$$34568 := (3 + 45) \times 6! + 8 = 8 + 6! \times (5 + 43).$$

$$34569 := (3 + 45) \times 6! + 9 = 9 + 6! \times (5 + 43).$$

$$35285 := -(2 \times 3! - 5)! + 5 + 8! = 8! + 5 - (-5 + 3! \times 2)!.$$

$$35286 := -(2 \times 3! - 5)! + 6 + 8! = 8! + 6 - (-5 + 3! \times 2)!.$$

$$35287 := -(2 \times 3! - 5)! + 7 + 8! = 8! + 7 - (-5 + 3! \times 2)!.$$

$$35288 := -(2 \times 3! - 5)! + 8 + 8! = 8! + 8 - (-5 + 3! \times 2)!.$$

$$35289 := -(2 \times 3! - 5)! + 9 + 8! = 9 + 8! - (-5 + 3! \times 2)!.$$

$$37440 := 0 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 0.$$

$$37441 := 1 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 1.$$

$$37442 := 2 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 2.$$

$$37443 := 3 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 3.$$

$$37447 := 3!! \times (4! + 4 \times 7) + 7 = 7 + (7 \times 4 + 4!) \times 3!!.$$

$$37448 := 3!! \times (4! + 4 \times 7) + 8 = 8 + (7 \times 4 + 4!) \times 3!!.$$

$$37449 := 3!! \times (4! + 4 \times 7) + 9 = 9 + (7 \times 4 + 4!) \times 3!!.$$

$$38160 := 0 \times 1 - 3 \times 6! + 8! = 8! - 6! \times 3 + 1 \times 0.$$

$$38161 := 1 \times 1 - 3 \times 6! + 8! = 8! - 6! \times 3 + 1 \times 1.$$

$$38162 := 1 \times 2 - 3 \times 6! + 8! = 8! - 6! \times 3 + 2 \times 1.$$

$$38163 := 1 \times 3 - 3 \times 6! + 8! = 8! - 6! \times 3 + 3 \times 1.$$

$$38166 := -1 \times 3 \times 6! + 6 + 8! = 8! + 6 - 6! \times 3 \times 1.$$

$$38167 := -1 \times 3 \times 6! + 7 + 8! = 8! + 7 - 6! \times 3 \times 1.$$

$$38168 := -1 \times 3 \times 6! + 8 + 8! = 8! + 8 - 6! \times 3 \times 1.$$

$$38169 := -1 \times 3 \times 6! + 8! + 9 = 9 + 8! - 6! \times 3 \times 1.$$

$$40324 := (-0! + 2 + 3 + 4)! + 4 = 4 + (-4 \times 3 + 20)!.$$

$$40325 := (-0! + 2 + 3 + 4)! + 5 = 5 + (-4 \times 3 + 20)!.$$

$$40326 := (-0! + 2 + 3 + 4)! + 6 = 6 + (-4 \times 3 + 20)!.$$

$$40327 := (-0! + 2 + 3 + 4)! + 7 = 7 + (-4 \times 3 + 20)!.$$

$$40328 := (-0! + 2 + 3 + 4)! + 8 = 8 + (-4 \times 3 + 20)!.$$

$$40329 := (-0! + 2 + 3 + 4)! + 9 = 9 + (-4 \times 3 + 20)!.$$

$$40484 := (0! + 4)! + 44 + 8! = 8! + 4 + 4 \times 40.$$

$$40485 := (0! + 4)! + 45 + 8! = 8! + 5 + 4 \times 40.$$

$$40486 := (0! + 4)! + 46 + 8! = 8! + 6 + 4 \times 40.$$

$$40487 := (0! + 4)! + 47 + 8! = 8! + 7 + 4 \times 40.$$

$$40488 := (0! + 4)! + 48 + 8! = 8! + 8 + 4 \times 40.$$

$$45360 := (65 - \sqrt{4}) \times 3!! + 0 = 0 + 3!!/\sqrt{4} \times (5! + 6).$$

$$45361 := (65 - \sqrt{4}) \times 3!! + 1 = 1 + 3!!/\sqrt{4} \times (5! + 6).$$

$$45362 := (65 - \sqrt{4}) \times 3!! + 2 = 2 + 3!!/\sqrt{4} \times (5! + 6).$$

$$45363 := (65 - \sqrt{4}) \times 3!! + 3 = 3 + 3!!/\sqrt{4} \times (5! + 6).$$

$$45366 := 3!!/\sqrt{4} \times (5! + 6) + 6 = 6 + (65 - \sqrt{4}) \times 3!!.$$

$$45367 := 3!!/\sqrt{4} \times (5! + 6) + 7 = 7 + (65 - \sqrt{4}) \times 3!!.$$

$$45368 := 3!!/\sqrt{4} \times (5! + 6) + 8 = 8 + (65 - \sqrt{4}) \times 3!!.$$

$$45369 := 3!!/\sqrt{4} \times (5! + 6) + 9 = 9 + (65 - \sqrt{4}) \times 3!!.$$

$$46560 := 0 + 4! - 5! + 6^6 = 6^6 - 5! + 4! + 0.$$

$$46561 := 1 + 4! - 5! + 6^6 = 6^6 - 5! + 4! + 1.$$

$$46562 := 2 + 4! - 5! + 6^6 = 6^6 - 5! + 4! + 2.$$

$$46563 := 3 + 4! - 5! + 6^6 = 6^6 - 5! + 4! + 3.$$

$$46564 := 4 + 4! - 5! + 6^6 = 6^6 - 5! + 4! + 4.$$

$$46565 := 4! - 5! + 5 + 6^6 = 6^6 + 5 - 5! + 4!.$$

$$46566 := 4! - 5! + 6 + 6^6 = 6^6 + 6 - 5! + 4!.$$

$$46567 := 4! - 5! + 6^6 + 7 = 6^6 + 7 - 5! + 4!.$$

$$46568 := 4! - 5! + 6^6 + 8 = 8 + 6^6 - 5! + 4!.$$

$$46569 := 4! - 5! + 6^6 + 9 = 9 + 6^6 - 5! + 4!.$$

$$46640 := 0 - 4 \times 4 + 6^6 = 6^6 - 4 \times 4 + 0.$$

$$46641 := 1 - 4 \times 4 + 6^6 = 6^6 - 4 \times 4 + 1.$$

$$46642 := 2 - 4 \times 4 + 6^6 = 6^6 - 4 \times 4 + 2.$$

$$46643 := 3 - 4 \times 4 + 6^6 = 6^6 - 4 \times 4 + 3.$$

$$46644 := -4 \times 4 + 4 + 6^6 = 6^6 + 4 - 4 \times 4.$$

$$46645 := -4 \times 4 + 5 + 6^6 = 6^6 + 5 - 4 \times 4.$$

$$46646 := -4 \times 4 + 6 + 6^6 = 6^6 + 6 - 4 \times 4.$$

$$46647 := -4 \times 4 + 6^6 + 7 = 7 + 6^6 - 4 \times 4.$$

$$46648 := -4 \times 4 + 6^6 + 8 = 8 + 6^6 - 4 \times 4.$$

$$46649 := -4 \times 4 + 6^6 + 9 = 9 + 6^6 - 4 \times 4.$$

$$48960 := 0 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 0.$$

$$48961 := 1 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 1.$$

$$48962 := 2 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 2.$$

$$48963 := 3 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 3.$$

$$48964 := 4 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 4.$$

$$75690 := 0 + 5 \times (6 + 7!) \times \sqrt{9} = \sqrt{9} \times (7! + 6) \times 5 + 0.$$

$$75691 := 1 + 5 \times (6 + 7!) \times \sqrt{9} = \sqrt{9} \times (7! + 6) \times 5 + 1.$$

$$75692 := 2 + 5 \times (6 + 7!) \times \sqrt{9} = \sqrt{9} \times (7! + 6) \times 5 + 2.$$

$$75693 := 3 + 5 \times (6 + 7!) \times \sqrt{9} = \sqrt{9} \times (7! + 6) \times 5 + 3.$$

$$75694 := 4 + 5 \times (6 + 7!) \times \sqrt{9} = \sqrt{9} \times (7! + 6) \times 5 + 4.$$

$$75695 := 5 + 5 \times (6 + 7!) \times \sqrt{9} = \sqrt{9} \times (7! + 6) \times 5 + 5.$$

$$75699 := 5 \times (6 + 7!) \times \sqrt{9} + 9 = 9 + \sqrt{9} \times (7! + 6) \times 5.$$

$$80640 := 00 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 0 \times 0!.$$

$$80641 := 01 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 1 \times 0!.$$

$$80642 := 02 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 2 \times 0!.$$

$$80643 := 03 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 3 \times 0!.$$

$$80644 := 04 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 4 \times 0!.$$

$$80648 := (-04 + 6) \times 8! + 8 = 8 + 8! \times (6 - 4 \times 0!).$$

$$80649 := (-04 + 6) \times 8! + 9 = 9 + 8! \times (6 - 4 \times 0!).$$

$$83520 := 0 + 2 \times 3!! \times 58 = 8! + 5! \times 3!!/2 + 0.$$

$$83521 := 1 + 2 \times 3!! \times 58 = 8! + 5! \times 3!!/2 + 1.$$

$$83522 := 2 + 2 \times 3!! \times 58 = 8! + 5! \times 3!!/2 + 2.$$

$$85562 := 2 + 5! + 5! \times (6! - 8) = (-8 + 6!) \times 5! + 5! + 2.$$

$$83528 := 2 \times 3!! \times 58 + 8 = 8! + 8 + 5! \times 3!!/2.$$

$$85563 := 3 + 5! + 5! \times (6! - 8) = (-8 + 6!) \times 5! + 5! + 3.$$

$$83529 := 2 \times 3!! \times 58 + 9 = 9 + 8! + 5! \times 3!!/2.$$

$$85564 := 4 + 5! + 5! \times (6! - 8) = (-8 + 6!) \times 5! + 5! + 4.$$

$$85565 := 5 + 5! + 5! \times (6! - 8) = (-8 + 6!) \times 5! + 5! + 5.$$

$$85560 := 0 + 5! + 5! \times (6! - 8) = (-8 + 6!) \times 5! + 5! + 0.$$

$$85568 := 5! + 5! \times (6! - 8) + 8 = 8 + (-8 + 6!) \times 5! + 5!.$$

$$85561 := 1 + 5! + 5! \times (6! - 8) = (-8 + 6!) \times 5! + 5! + 1.$$

$$85569 := 5! + 5! \times (6! - 8) + 9 = 9 + (-8 + 6!) \times 5! + 5!.$$

$$39606 := (-0! + 3 + 6)! + 6 - (\sqrt{9})!! = -(\sqrt{9})!! + 6 + (\sqrt{63 + 0!})!.$$

$$39607 := (-0! + 3 + 6)! + 7 - (\sqrt{9})!! = -(\sqrt{9})!! + 7 + (\sqrt{63 + 0!})!.$$

$$39608 := (-0! + 3 + 6)! + 8 - (\sqrt{9})!! = -(\sqrt{9})!! + 8 + (\sqrt{63 + 0!})!.$$

$$39609 := (-0! + 3 + 6)! + 9 - (\sqrt{9})!! = -(\sqrt{9})!! + 9 + (\sqrt{63 + 0!})!.$$

$$44640 := 0 + \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! = 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) + 0.$$

$$44641 := 1 + \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! = 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) + 1.$$

$$44642 := 2 + \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! = 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) + 2.$$

$$44643 := 3 + \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! = 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) + 3.$$

$$44644 := 4 + \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! = 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) + 4.$$

$$44646 := \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! + 6 = 6 + 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right).$$

$$44647 := \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! + 7 = 7 + 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right).$$

$$44648 := \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! + 8 = 8 + 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right).$$

$$44649 := \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right) \times 6! + 9 = 9 + 6! \times \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{4} \right).$$

$$79920 := 0 + ((-2 + 7)! - 9) \times (\sqrt{9})!! = (\sqrt{9})!! \times (-9 + (7 - 2)!) + 0.$$

$$79921 := 1 + ((-2 + 7)! - 9) \times (\sqrt{9})!! = (\sqrt{9})!! \times (-9 + (7 - 2)!) + 1.$$

$$79922 := 2 + ((-2 + 7)! - 9) \times (\sqrt{9})!! = (\sqrt{9})!! \times (-9 + (7 - 2)!) + 2.$$

### 3.2 Symmetrical Representations in Increasing Order of Digits

$$10080 := 0 + (0! + 0!) \times (-1 + 8)!.$$

$$10089 := (0! + 0!) \times (-1 + 8)! + 9.$$

$$14407 := \sqrt{(01 + 4)!^4} + 7.$$

$$10081 := 0! + (0! + 1) \times (-1 + 8)!.$$

$$14400 := 00 + \sqrt{(1 + 4)!^4}.$$

$$14408 := \sqrt{(01 + 4)!^4} + 8.$$

$$10088 := (0! + 0!) \times (-1 + 8)! + 8.$$

$$14401 := 01 + \sqrt{(1 + 4)!^4}.$$

$$14409 := \sqrt{(01 + 4)!^4} + 9.$$

$14444 := \sqrt{(1+4)!^4} + 44.$	$33841 := 1 - 3!! + 3!! \times 48.$	$46684 := 4 + 4! + 6\sqrt{\sqrt{6^8}}.$
$14445 := \sqrt{(1+4)!^4} + 45.$	$33842 := 2 - 3!! + 3!! \times 48.$	$46685 := 4! + 5 + 6\sqrt{\sqrt{6^8}}.$
$14446 := \sqrt{(1+4)!^4} + 46.$	$33843 := 3 - 3!! + 3!! \times 48.$	$46686 := 4! + 6 + 6\sqrt{\sqrt{6^8}}.$
$14447 := \sqrt{(1+4)!^4} + 47.$	$33844 := -3!! \times \sqrt{3^4} + 4 + 8!.$	$46687 := 4! + 6^6 + \sqrt{\sqrt{\sqrt{7^8}}}.$
$14448 := \sqrt{(1+4)!^4} + 48.$	$33845 := -3!! \times \sqrt{3^4} + 5 + 8!.$	$46688 := 4! + 6\sqrt{\sqrt{6^8}} + 8.$
$14449 := \sqrt{(1+4)!^4} + 49.$	$33846 := -3!! \times \sqrt{3^4} + 6 + 8!.$	$46689 := 4! + 6\sqrt{\sqrt{6^8}} + 9.$
$14455 := \sqrt{(1+4)!^4} + 55.$	$33847 := -3!! \times \sqrt{3^4} + 7 + 8!.$	
$14456 := \sqrt{(1+4)!^4} + 56.$	$33848 := -3!! \times \sqrt{3^4} + 8 + 8!.$	
$14457 := \sqrt{(1+4)!^4} + 57.$	$33849 := -3!! \times \sqrt{3^4} + 8! + 9.$	
$14458 := \sqrt{(1+4)!^4} + 58.$	$34626 := 2 \times 3!! \times 4! + 66.$	$46693 := 34 + 6^6 + \sqrt{9}.$
$14459 := \sqrt{(1+4)!^4} + 59.$	$34627 := 2 \times 3!! \times 4! + 67.$	$46694 := 44 + 6^6 - (\sqrt{9})!.$
$14466 := \sqrt{(1+4)!^4} + 66.$	$34628 := 2 \times 3!! \times 4! + 68.$	$46695 := 45 + 6^6 - (\sqrt{9})!.$
$14467 := \sqrt{(1+4)!^4} + 67.$	$34629 := 2 \times 3!! \times 4! + 69.$	$46696 := 46 + 6^6 - (\sqrt{9})!.$
$14468 := \sqrt{(1+4)!^4} + 68.$	$46080 := 0 + (1+4)! \times 6! - 8!.$	$56160 := 0 + (\sqrt{1+5!})!/6! + 6!.$
$14469 := \sqrt{(1+4)!^4} + 69.$	$46081 := 0! + (1+4)! \times 6! - 8!.$	$56161 := 1 + (\sqrt{1+5!})!/6! + 6!.$
$14477 := \sqrt{(1+4)!^4} + 77.$	$46086 := (0! + 4)! \times 6! + 6 - 8!.$	$56166 := (\sqrt{1+5!})!/6! + 6! + 6.$
$14478 := \sqrt{(1+4)!^4} + 78.$	$46087 := (0! + 4)! \times 6! + 7 - 8!.$	$56167 := (\sqrt{1+5!})!/6! + 6! + 7.$
$14479 := \sqrt{(1+4)!^4} + 79.$	$46088 := (0! + 4)! \times 6! + 8 - 8!.$	$56168 := (\sqrt{1+5!})!/6! + 6! + 8.$
$14488 := \sqrt{(1+4)!^4} + 88.$	$46089 := (0! + 4)! \times 6! - 8! + 9.$	$56169 := (\sqrt{1+5!})!/6! + 6! + 9.$
$14489 := \sqrt{(1+4)!^4} + 89.$	$46660 := 0 + 4!/6 + 6^6.$	$57460 := 0 + 4 \times 5^6 - 7!.$
$15506 := 01 - 5! + 5^6.$	$46661 := 1 + 4!/6 + 6^6.$	$57461 := 1 + 4 \times 5^6 - 7!.$
$15516 := 11 - 5! + 5^6.$	$46662 := 2 + 4!/6 + 6^6.$	$57462 := 2 + 4 \times 5^6 - 7!.$
$15636 := -1 + 3! + 5^6 + 6.$	$46663 := 3 + 4!/6 + 6^6.$	$57463 := 3 + 4 \times 5^6 - 7!.$
$15637 := -1 + 3! + 5^6 + 7.$	$46664 := 4 + 4!/6 + 6^6.$	$57464 := 4 + 4 \times 5^6 - 7!.$
$15638 := -1 + 3! + 5^6 + 8.$	$46666 := 4!/6 + 6^6 + 6.$	$57466 := 4 \times 5^6 + 6 - 7!.$
$15639 := -1 + 3! + 5^6 + 9.$	$46667 := 4!/6 + 6^6 + 7.$	$57467 := 4 \times 5^6 + 7 - 7!.$
$16560 := 0 + (-1+5)! \times 6! - 6!.$	$46668 := 4!/6 + 6^6 + 8.$	$57468 := 4 \times 5^6 - 7! + 8.$
$16561 := 1 + (-1+5)! \times 6! - 6!.$	$46669 := 4!/6 + 6^6 + 9.$	$57469 := 4 \times 5^6 - 7! + 9.$
$25942 := 22 + 4! \times 5! \times 9.$	$46680 := 0 + 4! + 6\sqrt{\sqrt{6^8}}.$	$64800 := 0 + (-0! + 4)!! \times 6!/8.$
$25943 := 23 + 4! \times 5! \times 9.$	$46681 := 1 + 4! + 6\sqrt{\sqrt{6^8}}.$	$64801 := 0! + (-1+4)!! \times 6!/8.$
$25944 := 24 + 4! \times 5! \times 9.$	$46682 := 2 + 4! + 6\sqrt{\sqrt{6^8}}.$	$64806 := (-0! + 4)! + 6! \times 6!/8.$
$33840 := 0 - 3!! + 3!! \times 48.$	$46683 := 3 + 4! + 6\sqrt{\sqrt{6^8}}.$	$64808 := (-0! + 4)!! \times 6!/8 + 8.$
		$64809 := (-0! + 4)!! \times 6!/8 + 9.$
		$66240 := 0 + 2 \times 46 \times 6!.$

66241 := $1 + 2 \times 46 \times 6!$ .	67543 := $3 + 4 \times 5^6 + 7!$ .	73443 := $3 + (-3! + 4!)! / (\sqrt{4} \times 7)!$ .
66242 := $2 + 2 \times 46 \times 6!$ .	67544 := $4 + 4 \times 5^6 + 7!$ .	73447 := $(-3! + 4!)! / (\sqrt{4} \times 7)! + 7$ .
66246 := $2 \times 46 \times 6! + 6$ .	67546 := $4 \times 5^6 + 6 + 7!$ .	73448 := $(-3! + 4!)! / (\sqrt{4} \times 7)! + 8$ .
66247 := $2 \times 46 \times 6! + 7$ .	67547 := $4 \times 5^6 + 7 + 7!$ .	73449 := $(-3! + 4!)! / (\sqrt{4} \times 7)! + 9$ .
66248 := $2 \times 46 \times 6! + 8$ .	67548 := $4 \times 5^6 + 7! + 8$ .	86400 := $0 + (1+4)! \times (\sqrt{\sqrt{\sqrt{6^8}}})!$ .
66249 := $2 \times 46 \times 6! + 9$ .	67549 := $4 \times 5^6 + 7! + 9$ .	86401 := $0! + (1+4)! \times (\sqrt{\sqrt{\sqrt{6^8}}})!$ .
67540 := $0 + 4 \times 5^6 + 7!$ .	73440 := $0 + (-3! + 4!)! / (\sqrt{4} \times 7)!$ .	86406 := $(0! + 4)! \times 6! + \sqrt{\sqrt{\sqrt{6^8}}}$ .
67541 := $1 + 4 \times 5^6 + 7!$ .	73441 := $1 + (-3! + 4!)! / (\sqrt{4} \times 7)!$ .	86407 := $(0! + 4)! \times 6! + \sqrt{\sqrt{\sqrt{7^8}}}$ .
67542 := $2 + 4 \times 5^6 + 7!$ .	73442 := $2 + (-3! + 4!)! / (\sqrt{4} \times 7)!$ .	

### 3.3 Symmetrical Representations in Decreasing Order of Digits

13440 := $(4 + 4)! / 3 + 1 \times 0$ .	15636 := $6 + 6 + 5^{3!} - 1$ .	25941 := $9 \times 5! \times 4! + 21$ .
13441 := $(4 + 4)! / 3 + 1 \times 1$ .	15637 := $7 + 6 + 5^{3!} - 1$ .	25942 := $9 \times 5! \times 4! + 22$ .
13442 := $(4 + 4)! / 3 + 2 \times 1$ .	15638 := $8 + 6 + 5^{3!} - 1$ .	26880 := $8! \times 8 / (6 \times 2) + 0$ .
13443 := $(4 + 4)! / 3 + 3 \times 1$ .	15639 := $9 + 6 + 5^{3!} - 1$ .	26881 := $8! \times 8 / (6 \times 2) + 1$ .
13444 := $4 + (4 + 4)! / 3 \times 1$ .	20166 := $6 + (6 + 2)! / (1 + 0!)$ .	26882 := $8! \times 8 / (6 \times 2) + 2$ .
13445 := $5 + (4 + 4)! / 3 \times 1$ .	20167 := $7 + (6 + 2)! / (1 + 0!)$ .	26888 := $8 + 8 \times 8! / (6 \times 2)$ .
13446 := $6 + (4 + 4)! / 3 \times 1$ .	20168 := $8 + (6 + 2)! / (1 + 0!)$ .	26889 := $9 + 8 \times 8! / (6 \times 2)$ .
13447 := $7 + (4 + 4)! / 3 \times 1$ .	20169 := $9 + (6 + 2)! / (1 + 0!)$ .	27360 := $76 \times 3!! / 2 - 0$ .
13448 := $8 + (4 + 4)! / 3 \times 1$ .	23340 := $(4! + 3!^{3!}) / 2 + 0$ .	27361 := $76 \times 3!! / 2 + 1$ .
13449 := $9 + (4 + 4)! / 3 \times 1$ .	23341 := $(4! + 3!^{3!}) / 2 + 1$ .	27362 := $76 \times 3!! / 2 + 2$ .
13688 := $8 + (8! + 6!) / 3 \times 1$ .	23342 := $(4! + 3!^{3!}) / 2 + 2$ .	27367 := $7 + 76 \times 3!! / 2$ .
13689 := $9 + (8! + 6!) / 3 \times 1$ .	23344 := $4 + (4! + 3!^{3!}) / 2$ .	27368 := $8 + 76 \times 3!! / 2$ .
14415 := $\sqrt{5!^4} + 4 + 11$ .	23345 := $5 + (4! + 3!^{3!}) / 2$ .	27369 := $9 + 76 \times 3!! / 2$ .
14425 := $\sqrt{5!^4} + 4 + 21$ .	23346 := $6 + (4! + 3!^{3!}) / 2$ .	29520 := $(\sqrt{9})!! + 5!^2 \times 2 + 0$ .
14435 := $\sqrt{5!^4} + 4 + 31$ .	23347 := $7 + (4! + 3!^{3!}) / 2$ .	29521 := $(\sqrt{9})!! + 5!^2 \times 2 + 1$ .
14445 := $\sqrt{5!^4} + 4 + 41$ .	23348 := $8 + (4! + 3!^{3!}) / 2$ .	29522 := $(\sqrt{9})!! + 5!^2 \times 2 + 2$ .
14500 := $\sqrt{5!^4} + 100$ .	23349 := $9 + (4! + 3!^{3!}) / 2$ .	29526 := $(\sqrt{9})!! + 6 + 5!^2 \times 2$ .
14510 := $\sqrt{5!^4} + 110$ .	25920 := $9! / ((5 + 2) \times 2) + 0$ .	29527 := $(\sqrt{9})!! + 7 + 5!^2 \times 2$ .
14511 := $\sqrt{5!^4} + 111$ .	25921 := $9! / ((5 + 2) \times 2) + 1$ .	29528 := $(\sqrt{9})!! + 8 + 5!^2 \times 2$ .
15633 := $6 + 5^{3!} + 3 - 1$ .	25922 := $9! / ((5 + 2) \times 2) + 2$ .	29529 := $(\sqrt{9})!! + 9 + 5!^2 \times 2$ .
15635 := $6 + 5 + 5^{3!} - 1$ .	25940 := $9 \times 5! \times 4! + 20$ .	30960 := $(\sqrt{9})!! + 6 \times (3! + 1)! + 0$ .

$30961 := (\sqrt{9})!! + 6 \times (3! + 1)! + 0!$ .	$38521 := 8! - 5 \times 3!!/2 + 1.$	$40313 := (4!/3)! + 3 - 10.$
$30966 := (\sqrt{9})!! + 6 + 6 \times (3! + 0!)!.$	$38522 := 8! - 5 \times 3!!/2 + 2.$	$40314 := 4 + (4!/3)! - 10.$
$30967 := (\sqrt{9})!! + 7 + 6 \times (3! + 0!)!.$	$38525 := 8! + 5 - 5 \times 3!!/2.$	$40315 := 5 + (4!/3)! - 10.$
$30968 := (\sqrt{9})!! + 8 + 6 \times (3! + 0!)!.$	$38526 := 8! + 6 - 5 \times 3!!/2.$	$40316 := 6 + (4!/3)! - 10.$
$30969 := (\sqrt{9})!! + 9 + 6 \times (3! + 0!)!.$	$38527 := 8! + 7 - 5 \times 3!!/2.$	$40317 := 7 + (4!/3)! - 10.$
$31250 := 5^{3!} \times 2 + 1 \times 0.$	$38528 := 8! + 8 - 5 \times 3!!/2.$	$40318 := 8 + (4!/3)! - 10.$
$31251 := 5^{3!} \times 2 + 1 \times 1.$	$38529 := 9 + 8! - 5 \times 3!!/2.$	$40319 := 9 + (4!/3)! - 10.$
$31252 := 5^{3!} \times 2 + 2 \times 1.$	$38760 := 8! - 7!/6 - 3!! + 0.$	$40440 := (4+4)! + (4+0!)! + 0.$
$31255 := 5 + 5^{3!} \times 2 \times 1.$	$38761 := 8! - 7!/6 - 3!! + 1.$	$40441 := (4+4)! + (4+1)! + 0!.$
$31256 := 6 + 5^{3!} \times 2 \times 1.$	$38762 := 8! - 7!/6 - 3!! + 2.$	$40444 := 4 + (4+4)! + (4+0!)!.$
$31257 := 7 + 5^{3!} \times 2 \times 1.$	$38763 := 8! - 7!/6 - 3!! + 3.$	$40445 := 5 + (4+4)! + (4+0!)!.$
$31258 := 8 + 5^{3!} \times 2 \times 1.$	$38764 := 8! - 7!/6 + 4 - 3!!.$	$40446 := 6 + (4+4)! + (4+0!)!.$
$31259 := 9 + 5^{3!} \times 2 \times 1.$	$38765 := 8! - 7!/6 + 5 - 3!!.$	$40447 := 7 + (4+4)! + (4+0!)!.$
$34624 := 64 + 4! \times 3!! \times 2.$	$38767 := 8! + 7 - 7!/6 - 3!!.$	$40448 := 8 + (4+4)! + (4+0!)!.$
$34625 := 65 + 4! \times 3!! \times 2.$	$38768 := 8! + 8 - 7!/6 - 3!!.$	$40449 := 9 + (4+4)! + (4+0!)!.$
$34626 := 66 + 4! \times 3!! \times 2.$	$38769 := 9 + 8! - 7!/6 - 3!!.$	
$34650 := (\sqrt{6!/5})!/4!^3 + 0.$	$39480 := -(\sqrt{9})!! + 8! - (\sqrt{4} + 3)! + 0.$	$46690 := -(\sqrt{9})! + 6^6 + 40.$
$34651 := (\sqrt{6!/5})!/4!^3 + 1.$	$39481 := -(\sqrt{9})!! + 8! - (\sqrt{4} + 3)! + 1.$	$46691 := -(\sqrt{9})! + 6^6 + 41.$
$34652 := (\sqrt{6!/5})!/4!^3 + 2.$	$39482 := -(\sqrt{9})!! + 8! - (\sqrt{4} + 3)! + 2.$	$46692 := -(\sqrt{9})! + 6^6 + 42.$
$34653 := (\sqrt{6!/5})!/4!^3 + 3.$	$39483 := -(\sqrt{9})!! + 8! - (\sqrt{4} + 3)! + 3.$	$46693 := -(\sqrt{9})! + 6^6 + 43.$
$34656 := 6 + (\sqrt{6!/5})!/4!^3.$	$39484 := -(\sqrt{9})!! + 8! + 4 - (\sqrt{4} + 3)!.$	$46694 := -(\sqrt{9})! + 6^6 + 44.$
$34657 := 7 + (\sqrt{6!/5})!/4!^3.$	$39485 := -(\sqrt{9})!! + 8! + 5 - (\sqrt{4} + 3)!.$	
$34658 := 8 + (\sqrt{6!/5})!/4!^3.$	$39486 := -(\sqrt{9})!! + 8! + 6 - (\sqrt{4} + 3)!.$	$51970 := 9!/7 + 5! + 10.$
$34659 := 9 + (\sqrt{6!/5})!/4!^3.$	$39487 := -(\sqrt{9})!! + 8! + 7 - (\sqrt{4} + 3)!.$	$51971 := 9!/7 + 5! + 11.$
$35280 := 8! - (-5 + 3! \times 2)! + 0.$	$39488 := -(\sqrt{9})!! + 8 + 8! - (\sqrt{4} + 3)!.$	$55945 := (\sqrt{9} + 5)! + 5^{(\sqrt{5+4})!}.$
$35281 := 8! - (-5 + 3! \times 2)! + 1.$	$39489 := -(\sqrt{9})!! + 9 + 8! - (\sqrt{4} + 3)!.$	$55948 := (\sqrt{9} + 8!) + 5^{(\sqrt{5+4})!}.$
$35282 := 8! - (-5 + 3! \times 2)! + 2.$		
$37807 := 8! + 7 - 7!/(3 - 0!).$	$39760 := (9! - 7!)/(6 + 3) + 0.$	$59760 := (9! - 7!)/6 + 5! + 0.$
$37808 := 8! + 8 - 7!/(3 - 0!).$	$39761 := (9! - 7!)/(6 + 3) + 1.$	$59761 := (9! - 7!)/6 + 5! + 1.$
$37809 := 8! + 9 - 7!/(3 - 0!).$	$39762 := (9! - 7!)/(6 + 3) + 2.$	$59762 := (9! - 7!)/6 + 5! + 2.$
$38520 := 8! - 5 \times 3!!/2 + 0.$	$39763 := (9! - 7!)/(6 + 3) + 3.$	$59763 := (9! - 7!)/6 + 5! + 3.$
	$40310 := (4!/3)! - 10 + 0.$	$59764 := (9! - 7!)/6 + 5! + 4.$
	$40311 := (4!/3)! + 1 - 10.$	$59765 := (9! - 7!)/6 + 5! + 5.$
	$40312 := (4!/3)! + 2 - 10.$	$59766 := (9! - 7!)/6 + 6 + 5!.$
		$60480 := 8! \times 6/4 + 0 \times 0!.$

$60481 := 8! \times 6/4 + 1 \times 0!$ .	$69131 := 96 \times 3!! + 11.$	$87362 := 8! \times (7 + 6)/3! + 2.$
$60482 := 8! \times 6/4 + 2 \times 0!$ .	$73590 := (9! + 7!)/5 + 3! + 0.$	$87363 := 8! \times (7 + 6)/3! + 3.$
$60483 := 8! \times 6/4 + 3 \times 0!$ .	$73591 := (9! + 7!)/5 + 3! + 1.$	$87368 := 8 + 8! \times (7 + 6)/3!.$
$60484 := 8! \times 6/4 + 4 \times 0!$ .	$73592 := (9! + 7!)/5 + 3! + 2.$	$87369 := 9 + 8! \times (7 + 6)/3!.$
$60488 := 8 + 8! \times 6/4 \times 0!$ .	$73593 := (9! + 7!)/5 + 3! + 3.$	$93320 := 9 + 3!^{3!} \times 2 - 0!.$
$60489 := 9 + 8! \times 6/4 \times 0!$ .	$73594 := (9! + 7!)/5 + 4 + 3!.$	$93321 := 9 + 3!^{3!} \times 2 \times 1.$
$64980 := (\sqrt{9})!!/8 \times (6! + \sqrt{4}) + 0.$	$73595 := (9! + 7!)/5 + 5 + 3!.$	$95760 := (\sqrt{9})!! \times (7 + 6 + 5!) + 0.$
$64981 := (\sqrt{9})!!/8 \times (6! + \sqrt{4}) + 1.$	$73599 := 9 + (9! + 7!)/5 + 3!.$	$95761 := (\sqrt{9})!! \times (7 + 6 + 5!) + 1.$
$64982 := (\sqrt{9})!!/8 \times (6! + \sqrt{4}) + 2.$	$83525 := 8! + 5 + 5! \times 3!!/2.$	$95762 := (\sqrt{9})!! \times (7 + 6 + 5!) + 2.$
$64983 := (\sqrt{9})!!/8 \times (6! + \sqrt{4}) + 3.$	$83526 := 8! + 6 + 5! \times 3!!/2.$	$95763 := (\sqrt{9})!! \times (7 + 6 + 5!) + 3.$
$64984 := (\sqrt{9})!!/8 \times (6! + \sqrt{4}) + 4.$	$83527 := 8! + 7 + 5! \times 3!!/2.$	$95764 := (\sqrt{9})!! \times (7 + 6 + 5!) + 4.$
$64989 := 9 + (\sqrt{9})!!/8 \times (6! + \sqrt{4}).$	$87360 := 8! \times (7 + 6)/3! + 0.$	$95765 := (\sqrt{9})!! \times (7 + 6 + 5!) + 5.$
$69130 := 96 \times 3!! + 10.$	$87361 := 8! \times (7 + 6)/3! + 1.$	$95769 := 9 + (\sqrt{9})!! \times (7 + 6 + 5!).$

## 4 Unified Selfie Numbers

This section deals with the *Selfie numbers* that can be written jointly in all the four ways as given in subsection 1.4. This we have done in two subsections. The first one is in symmetrical consecutive ways and second is just possible numbers. Just to recapitulate, the *unified Selfie numbers* are understood as

$$\begin{aligned}\text{Unified Selfie number} &= \text{Order of digits} \\ &= \text{Reverse order of digits} \\ &= \text{Increasing order of digits} \\ &= \text{Decreasing order of digits}.\end{aligned}$$

### 4.1 Symmetrical Unified Selfies in Four Ways

As we have seen above that there are numbers that can be represented in all the four ways. Below are these representations in sequential way. Non sequential way is given in last section.

$$720 := (\sqrt{7+2})!! + 0 = 0 + (\sqrt{2+\bar{7}})!! = 0 + (\sqrt{2+\bar{7}})!! = (\sqrt{7+2})!! + 0.$$

$$721 := (\sqrt{7+2})!! + 1 = 1 + (\sqrt{2+\bar{7}})!! = 1 + (\sqrt{2+\bar{7}})!! = (\sqrt{7+2})!! + 1.$$

$$722 := (\sqrt{7+2})!! + 2 = 2 + (\sqrt{2+\bar{7}})!! = 2 + (\sqrt{2+\bar{7}})!! = (\sqrt{7+2})!! + 2.$$

$$727 := (\sqrt{7+2})!! + 7 = 7 + (\sqrt{2+\bar{7}})!! = (\sqrt{2+\bar{7}})!! + 7 = 7 + (\sqrt{7+2})!!.$$

$$728 := (\sqrt{7+2})!! + 8 = 8 + (\sqrt{2+\bar{7}})!! = (\sqrt{2+\bar{7}})!! + 8 = 8 + (\sqrt{7+2})!!.$$

$$729 := (\sqrt{7+2})!! + 9 = 9 + (\sqrt{2+\bar{7}})!! = (\sqrt{2+\bar{7}})!! + 9 = 9 + (\sqrt{7+2})!!.$$

$$1444 := (-1+4)!! \times \sqrt{4} + 4 = 4 + \sqrt{4} \times (4-1)!!.$$

$$1445 := (-1+4)!! \times \sqrt{4} + 5 = 5 + \sqrt{4} \times (4-1)!!.$$

$$1446 := (-1+4)!! \times \sqrt{4} + 6 = 6 + \sqrt{4} \times (4-1)!!.$$

$$1447 := (-1 + 4)!! \times \sqrt{4} + 7 = 7 + \sqrt{4} \times (4 - 1)!!.$$

$$1448 := (-1 + 4)!! \times \sqrt{4} + 8 = 8 + \sqrt{4} \times (4 - 1)!!.$$

$$1449 := (-1 + 4)!! \times \sqrt{4} + 9 = 9 + \sqrt{4} \times (4 - 1)!!.$$

$$2160 := (2 + 1) \times 6! + 0 = 0 + 6! \times (1 + 2) = 0 + (1 + 2) \times 6! = 6! \times (2 + 1) + 0.$$

$$2161 := (2 + 1) \times 6! + 1 = 1 + 6! \times (1 + 2) = 1 + (1 + 2) \times 6! = 6! \times (2 + 1) + 1.$$

$$2166 := (2 + 1) \times 6! + 6 = 6 + 6! \times (1 + 2) = (1 + 2) \times 6! + 6 = 6 + 6! \times (2 + 1).$$

$$2167 := (2 + 1) \times 6! + 7 = 7 + 6! \times (1 + 2) = (1 + 2) \times 6! + 7 = 7 + 6! \times (2 + 1).$$

$$2168 := (2 + 1) \times 6! + 8 = 8 + 6! \times (1 + 2) = (1 + 2) \times 6! + 8 = 8 + 6! \times (2 + 1).$$

$$2169 := (2 + 1) \times 6! + 9 = 9 + 6! \times (1 + 2) = (1 + 2) \times 6! + 9 = 9 + 6! \times (2 + 1).$$

$$3600 := 3!! \times (6 - 0!) + 0 = 0 + (-0! + 6) \times 3!! = 0 + (-0! + 3!) \times 6! = 6! \times (3! - 0!) + 0.$$

$$3601 := 3!! \times (6 - 0!) + 1 = 1 + (-0! + 6) \times 3!! = 0! + (-1 + 3!) \times 6! = 6! \times (3! - 1) + 0!.$$

$$3606 := 3!! \times (6 - 0!) + 6 = 6 + (-0! + 6) \times 3!! = (-0! + 3!) \times 6! + 6 = 6 + 6! \times (3! - 0!).$$

$$3607 := 3!! \times (6 - 0!) + 7 = 7 + (-0! + 6) \times 3!! = (-0! + 3!) \times 6! + 7 = 7 + 6! \times (3! - 0!).$$

$$3608 := 3!! \times (6 - 0!) + 8 = 8 + (-0! + 6) \times 3!! = (-0! + 3!) \times 6! + 8 = 8 + 6! \times (3! - 0!).$$

$$3609 := 3!! \times (6 - 0!) + 9 = 9 + (-0! + 6) \times 3!! = (-0! + 3!) \times 6! + 9 = 9 + 6! \times (3! - 0!).$$

$$5040 := (5 + 0 + \sqrt{4})! + 0 = 0 + (\sqrt{4} + 05)! = 00 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 0 \times 0!.$$

$$5041 := (5 + 0 + \sqrt{4})! + 1 = 1 + (\sqrt{4} + 05)! = 01 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 1 \times 0!.$$

$$5042 := (5 + 0 + \sqrt{4})! + 2 = 2 + (\sqrt{4} + 05)! = 02 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 2 \times 0!.$$

$$5043 := (5 + 0 + \sqrt{4})! + 3 = 3 + (\sqrt{4} + 05)! = 03 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 3 \times 0!.$$

$$5044 := (5 + 0 + \sqrt{4})! + 4 = 4 + (\sqrt{4} + 05)! = 04 + (\sqrt{4} + 5)! = (5 + \sqrt{4})! + 4 \times 0!.$$

$$5045 := (5 + 0 + \sqrt{4})! + 5 = 5 + (\sqrt{4} + 0 + 5)! = (\sqrt{04} + 5)! + 5 = 5 + (5 + \sqrt{4})! \times 0!.$$

$$5046 := (5 + 0 + \sqrt{4})! + 6 = 6 + (\sqrt{4} + 0 + 5)! = (\sqrt{04} + 5)! + 6 = 6 + (5 + \sqrt{4})! \times 0!.$$

$$5047 := (5 + 0 + \sqrt{4})! + 7 = 7 + (\sqrt{4} + 0 + 5)! = (\sqrt{04} + 5)! + 7 = 7 + (5 + \sqrt{4})! \times 0!.$$

$$5048 := (5 + 0 + \sqrt{4})! + 8 = 8 + (\sqrt{4} + 0 + 5)! = (\sqrt{04} + 5)! + 8 = 8 + (5 + \sqrt{4})! \times 0!.$$

$$5049 := (5 + 0 + \sqrt{4})! + 9 = 9 + (\sqrt{4} + 0 + 5)! = (\sqrt{04} + 5)! + 9 = 9 + (5 + \sqrt{4})! \times 0!.$$

$$30240 := 3! \times (0! + 2 + 4)! + 0 = 0 + 42 \times (0 + 3!!) = 0 + (0! + 2)! \times (3 + 4)! = (4 + 3)! \times (2 + 1)! + 0.$$

$$30241 := 3! \times (0! + 2 + 4)! + 1 = 1 + 42 \times (0 + 3!!) = 0! + (1 + 2)! \times (3 + 4)! = (4 + 3)! \times (2 + 1)! + 0!.$$

$$30244 := 3! \times (0! + 2 + 4)! + 4 = 4 + 42 \times (0 + 3!!) = (0! + 2)! \times (3 + 4)! + 4 = 4 + (4 + 3)! \times (2 + 0!!).$$

$$30245 := 3! \times (0! + 2 + 4)! + 5 = 5 + 42 \times (0 + 3!!) = (0! + 2)! \times (3 + 4)! + 5 = 5 + (4 + 3)! \times (2 + 0!!).$$

$$30246 := 3! \times (0! + 2 + 4)! + 6 = 6 + 42 \times (0 + 3!!) = (0! + 2)! \times (3 + 4)! + 6 = 6 + (4 + 3)! \times (2 + 0!!).$$

$$30247 := 3! \times (0! + 2 + 4)! + 7 = 7 + 42 \times (0 + 3!!) = (0! + 2)! \times (3 + 4)! + 7 = 7 + (4 + 3)! \times (2 + 0!!).$$

$$30248 := 3! \times (0! + 2 + 4)! + 8 = 8 + 42 \times (0 + 3!!) = (0! + 2)! \times (3 + 4)! + 8 = 8 + (4 + 3)! \times (2 + 0!)!.$$

$$30249 := 3! \times (0! + 2 + 4)! + 9 = 9 + 42 \times (0 + 3!!) = (0! + 2)! \times (3 + 4)! + 9 = 9 + (4 + 3)! \times (2 + 0!)!.$$

$$34560 := (3 + 45) \times 6! + 0 = 0 + 6! \times (5 + 43) = 0 + (3 + 45) \times 6! = 6! \times (5 + 43) + 0.$$

$$34561 := (3 + 45) \times 6! + 1 = 1 + 6! \times (5 + 43) = 1 + (3 + 45) \times 6! = 6! \times (5 + 43) + 1.$$

$$34562 := (3 + 45) \times 6! + 2 = 2 + 6! \times (5 + 43) = 2 + (3 + 45) \times 6! = 6! \times (5 + 43) + 2.$$

$$34563 := (3 + 45) \times 6! + 3 = 3 + 6! \times (5 + 43) = 3 + (3 + 45) \times 6! = 6! \times (5 + 43) + 3.$$

$$34566 := (3 + 45) \times 6! + 6 = 6 + 6! \times (5 + 43) = (3 + 45) \times 6! + 6 = 6 + 6! \times (5 + 43).$$

$$34567 := (3 + 45) \times 6! + 7 = 7 + 6! \times (5 + 43) = (3 + 45) \times 6! + 7 = 7 + 6! \times (5 + 43).$$

$$34568 := (3 + 45) \times 6! + 8 = 8 + 6! \times (5 + 43) = (3 + 45) \times 6! + 8 = 8 + 6! \times (5 + 43).$$

$$34569 := (3 + 45) \times 6! + 9 = 9 + 6! \times (5 + 43) = (3 + 45) \times 6! + 9 = 9 + 6! \times (5 + 43).$$

$$35285 := -(\sqrt{-3 + 52})! + 8! + 5 = 5 + 8! - (2 \times 5 - 3)! = -(2 \times 3! - 5)! + 5 + 8! = 8! + 5 - (-5 + 3! \times 2)!.$$

$$35286 := -(\sqrt{-3 + 52})! + 8! + 6 = 6 + 8! - (2 \times 5 - 3)! = -(2 \times 3! - 5)! + 6 + 8! = 8! + 6 - (-5 + 3! \times 2)!.$$

$$35287 := -(\sqrt{-3 + 52})! + 8! + 7 = 7 + 8! - (2 \times 5 - 3)! = -(2 \times 3! - 5)! + 7 + 8! = 8! + 7 - (-5 + 3! \times 2)!.$$

$$35288 := -(\sqrt{-3 + 52})! + 8! + 8 = 8 + 8! - (2 \times 5 - 3)! = -(2 \times 3! - 5)! + 8 + 8! = 8! + 8 - (-5 + 3! \times 2)!.$$

$$35289 := -(\sqrt{-3 + 52})! + 8! + 9 = 9 + 8! - (2 \times 5 - 3)! = -(2 \times 3! - 5)! + 8! + 9 = 9 + 8! - (-5 + 3! \times 2)!.$$

$$37440 := 3!! \times (7 \times 4 + 4!) + 0 = 0 + (4! + 4 \times 7) \times 3!! = 0 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 0.$$

$$37441 := 3!! \times (7 \times 4 + 4!) + 1 = 1 + (4! + 4 \times 7) \times 3!! = 1 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 1.$$

$$37442 := 3!! \times (7 \times 4 + 4!) + 2 = 2 + (4! + 4 \times 7) \times 3!! = 2 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 2.$$

$$37443 := 3!! \times (7 \times 4 + 4!) + 3 = 3 + (4! + 4 \times 7) \times 3!! = 3 + 3!! \times (4! + 4 \times 7) = (7 \times 4 + 4!) \times 3!! + 3.$$

$$37447 := 3!! \times (7 \times 4 + 4!) + 7 = 7 + (4! + 4 \times 7) \times 3!! = 3!! \times (4! + 4 \times 7) + 7 = 7 + (7 \times 4 + 4!) \times 3!!.$$

$$37448 := 3!! \times (7 \times 4 + 4!) + 8 = 8 + (4! + 4 \times 7) \times 3!! = 3!! \times (4! + 4 \times 7) + 8 = 8 + (7 \times 4 + 4!) \times 3!!.$$

$$37449 := 3!! \times (7 \times 4 + 4!) + 9 = 9 + (4! + 4 \times 7) \times 3!! = 3!! \times (4! + 4 \times 7) + 9 = 9 + (7 \times 4 + 4!) \times 3!!.$$

$$40324 := (40 - 32)! + 4 = 4 + ((2 + 30)/4)! = (-0! + 2 + 3 + 4)! + 4 = 4 + (-4 \times 3 + 20)!.$$

$$40325 := (40 - 32)! + 5 = 5 + ((2 + 30)/4)! = (-0! + 2 + 3 + 4)! + 5 = 5 + (-4 \times 3 + 20)!.$$

$$40326 := (40 - 32)! + 6 = 6 + ((2 + 30)/4)! = (-0! + 2 + 3 + 4)! + 6 = 6 + (-4 \times 3 + 20)!.$$

$$40327 := (40 - 32)! + 7 = 7 + ((2 + 30)/4)! = (-0! + 2 + 3 + 4)! + 7 = 7 + (-4 \times 3 + 20)!.$$

$$40328 := (40 - 32)! + 8 = 8 + ((2 + 30)/4)! = (-0! + 2 + 3 + 4)! + 8 = 8 + (-4 \times 3 + 20)!.$$

$$40329 := (40 - 32)! + 9 = 9 + ((2 + 30)/4)! = (-0! + 2 + 3 + 4)! + 9 = 9 + (-4 \times 3 + 20)!.$$

$$40484 := 40 \times 4 + 8! + 4 = 4 + 8! + 40 \times 4 = (0! + 4)! + 44 + 8! = 8! + 4 + 4 \times 40.$$

$$40485 := 40 \times 4 + 8! + 5 = 5 + 8! + 40 \times 4 = (0! + 4)! + 45 + 8! = 8! + 5 + 4 \times 40.$$

$$40486 := 40 \times 4 + 8! + 6 = 6 + 8! + 40 \times 4 = (0! + 4)! + 46 + 8! = 8! + 6 + 4 \times 40.$$

$$40487 := 40 \times 4 + 8! + 7 = 7 + 8! + 40 \times 4 = (0! + 4)! + 47 + 8! = 8! + 7 + 4 \times 40.$$

$$40488 := 40 \times 4 + 8! + 8 = 8 + 8! + 40 \times 4 = (0! + 4)! + 48 + 8! = 8! + 8 + 4 \times 40.$$

$$45360 := (\sqrt{4} + 5)! \times (3 + 6) + 0 = 0 + 63 \times (\sqrt{5 + 4})!! = 0 + 3!!/\sqrt{4} \times (5! + 6) = (65 - \sqrt{4}) \times 3!! + 0.$$

$$45361 := (\sqrt{4} + 5)! \times (3 + 6) + 1 = 1 + 63 \times (\sqrt{5 + 4})!! = 1 + 3!!/\sqrt{4} \times (5! + 6) = (65 - \sqrt{4}) \times 3!! + 1.$$

$$45362 := (\sqrt{4} + 5)! \times (3 + 6) + 2 = 2 + 63 \times (\sqrt{5 + 4})!! = 2 + 3!!/\sqrt{4} \times (5! + 6) = (65 - \sqrt{4}) \times 3!! + 2.$$

$$45363 := (\sqrt{4} + 5)! \times (3 + 6) + 3 = 3 + 63 \times (\sqrt{5 + 4})!! = 3 + 3!!/\sqrt{4} \times (5! + 6) = (65 - \sqrt{4}) \times 3!! + 3.$$

$$45366 := (\sqrt{4} + 5)! \times (3 + 6) + 6 = 6 + 63 \times (\sqrt{5 + 4})!! = 3!!/\sqrt{4} \times (5! + 6) + 6 = 6 + (65 - \sqrt{4}) \times 3!!.$$

$$45367 := (\sqrt{4} + 5)! \times (3 + 6) + 7 = 7 + 63 \times (\sqrt{5 + 4})!! = 3!!/\sqrt{4} \times (5! + 6) + 7 = 7 + (65 - \sqrt{4}) \times 3!!.$$

$$45368 := (\sqrt{4} + 5)! \times (3 + 6) + 8 = 8 + 63 \times (\sqrt{5 + 4})!! = 3!!/\sqrt{4} \times (5! + 6) + 8 = 8 + (65 - \sqrt{4}) \times 3!!.$$

$$45369 := (\sqrt{4} + 5)! \times (3 + 6) + 9 = 9 + 63 \times (\sqrt{5 + 4})!! = 3!!/\sqrt{4} \times (5! + 6) + 9 = 9 + (65 - \sqrt{4}) \times 3!!.$$

$$48960 := 4 \times (8 + 9) \times 6! + 0 = 0 + 6! \times (9 \times 8 - 4) = 0 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 0.$$

$$48961 := 4 \times (8 + 9) \times 6! + 1 = 1 + 6! \times (9 \times 8 - 4) = 1 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 1.$$

$$48962 := 4 \times (8 + 9) \times 6! + 2 = 2 + 6! \times (9 \times 8 - 4) = 2 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 2.$$

$$48963 := 4 \times (8 + 9) \times 6! + 3 = 3 + 6! \times (9 \times 8 - 4) = 3 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 3.$$

$$48964 := 4 + 4 \times 6! \times (8 + 9) = (9 + 8) \times 6! \times 4 + 4 = 4 \times (8 + 9) \times 6! + 4 = 4 + 6! \times (9 \times 8 - 4).$$

$$80640 := 8! \times (06 - 4) + 0 = 0 + (-4 + 6) \times (0 + 8!) = 00 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 0 \times 0!.$$

$$80641 := 8! \times (06 - 4) + 1 = 1 + (-4 + 6) \times (0 + 8!) = 01 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 1 \times 0!.$$

$$80642 := 8! \times (06 - 4) + 2 = 2 + (-4 + 6) \times (0 + 8!) = 02 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 2 \times 0!.$$

$$80643 := 8! \times (06 - 4) + 3 = 3 + (-4 + 6) \times (0 + 8!) = 03 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 3 \times 0!.$$

$$80644 := 8! \times (06 - 4) + 4 = 4 + (-4 + 6) \times (0 + 8!) = 04 + (-4 + 6) \times 8! = 8! \times (6 - 4) + 4 \times 0!.$$

$$80648 := 8! \times (06 - 4) + 8 = 8 + (-4 + 6) \times (0 + 8!) = (-04 + 6) \times 8! + 8 = 8 + 8! \times (6 - 4 \times 0!).$$

$$80649 := 8! \times (06 - 4) + 9 = 9 + (-4 + 6) \times (0 + 8!) = (-04 + 6) \times 8! + 9 = 9 + 8! \times (6 - 4 \times 0!).$$

## 4.2 Non Symmetrical Unified Selfie Numbers

This section deals with *unified Selfie numbers*, i.e., the numbers those be written in all the four ways as specified in first section.

### 4.2.1 Two Digits Unified Selfie Numbers

$$\begin{aligned} 24 &= (\sqrt{2^4})! \\ &= (\sqrt{4^2})!. \end{aligned}$$

$$\begin{aligned} 36 &= 3! \times 6 \\ &= 6 \times 3!. \end{aligned}$$

$$\begin{aligned} 71 &= \sqrt{1 + 7!} \\ &= \sqrt{7! + 1}. \end{aligned}$$

### 4.2.2 Three Digits Unified Selfie Numbers

$$\begin{aligned} 119 &= -1 + (-1 + (\sqrt{9})!)! \\ &= ((\sqrt{9})! - 1)! - 1. \end{aligned}$$

$$\begin{aligned} 143 &= -1 + 4! \times 3! \\ &= 3! \times 4! - 1 \\ &= -1 + 3! \times 4! \\ &= 4! \times 3! - 1. \end{aligned}$$

$$\begin{aligned} 144 &= (1 + 4)! + 4! \\ &= 4! + (4 + 1)!. \end{aligned}$$

$$\begin{aligned} 145 &= 1 + 4! + 5! \\ &= 5! + 4! + 1. \end{aligned}$$

$$\begin{aligned} 216 &= \sqrt{(2+1)!^6} \\ &= 6^{1+2} \\ &= \sqrt{(1+2)!^6} \\ &= 6^{2+1}. \end{aligned}$$

$$\begin{aligned} 354 &= 3 \times (5! - \sqrt{4}) \\ &= (-\sqrt{4} + 5!) \times 3 \\ &= 3 \times (-\sqrt{4} + 5!) \\ &= (5! - \sqrt{4}) \times 3. \end{aligned}$$

$$\begin{aligned} 355 &= 3 \times 5! - 5 \\ &= -5 + 5! \times 3. \end{aligned}$$

$$\begin{aligned} 456 &= 4 \times (5! - 6) \\ &= (-6 + 5!) \times 4. \end{aligned}$$

$$\begin{aligned} 693 &= 6! - 9 \times 3 \\ &= -3 \times 9 + 6! \\ &= -\sqrt{3^6} + (\sqrt{9})!! \\ &= -\sqrt{\sqrt{9^6}} + 3!!.. \end{aligned}$$

$$\begin{aligned} 713 &= -7 + 1 \times 3!! \\ &= 3!! - 1 \times 7 \\ &= 1 \times 3!! - 7 \\ &= -7 + 3!! \times 1. \end{aligned}$$

$$\begin{aligned} 733 &= 7 + 3!! + 3! \\ &= 3! + 3!! + 7. \end{aligned}$$

$$\begin{aligned} 744 &= (7 + 4!) \times 4! \\ &= 4! \times (4! + 7). \end{aligned}$$

$$\begin{aligned} 936 &= (\sqrt{9})!^3 + 6! \\ &= 6! + 3!^{\sqrt{9}} \\ &= \sqrt{3!^6} + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 6^3. \end{aligned}$$

#### 4.2.3 Four Digits Unified Selfie Numbers

$$\begin{aligned} 1296 &= \sqrt{(1+2)!^9/6} \\ &= 6^{\sqrt{9}+2-1} \\ &= \sqrt{(1+2)!^6} \times (\sqrt{9})!! \\ &= (\sqrt{9})!^{6-2} \times 1. \end{aligned}$$

$$\begin{aligned} 1432 &= 1 \times (-4 + 3!!) \times 2 \\ &= 2 \times (3!! - 4) \times 1 \\ &= 1 \times 2 \times (3!! - 4) \\ &= (-4 + 3!!) \times 2 \times 1. \end{aligned}$$

$$\begin{aligned} 1433 &= -1 + \sqrt{4} \times (3!! - 3) \\ &= (3!! - 3) \times \sqrt{4} - 1 \\ &= -1 - 3! + 3!! \times \sqrt{4} \\ &= \sqrt{4} \times 3!! - 3! - 1. \end{aligned}$$

$$\begin{aligned} 1434 &= (1 - 4 + 3!!) \times \sqrt{4} \\ &= \sqrt{4} \times (3!! - 4 + 1) \\ &= (1 + 3!! - 4) \times \sqrt{4} \\ &= \sqrt{4} \times (-4 + 3!! + 1). \end{aligned}$$

$$\begin{aligned} 1435 &= 1 \times \sqrt{4} \times 3!! - 5 \\ &= -5 + 3!! \times \sqrt{4} \times 1 \\ &= 1 \times 3!! \times \sqrt{4} - 5 \\ &= -5 + \sqrt{4} \times 3!! \times 1. \end{aligned}$$

$$\begin{aligned} 1439 &= -1 + \sqrt{4} \times (-3 + 9)! \\ &= (9 - 3)! \times \sqrt{4} - 1 \\ &= -1 + 3!! + (\sqrt{4 \times 9})! \\ &= (\sqrt{9 \times 4})! + 3!! - 1. \end{aligned}$$

$$\begin{aligned} 1440 &= (-1 + 4)!! \times \sqrt{4} + 0 \\ &= 0 + \sqrt{4} \times (4 - 1)!! \\ &= 0 + (-1 + 4)!! \times \sqrt{4} \\ &= \sqrt{4} \times (-4 + 10)!. \end{aligned}$$

$$\begin{aligned} 1441 &= (-1 + 4)!! \times \sqrt{4} + 1 \\ &= 1 + \sqrt{4} \times (4 - 1)!! \\ &= 1 + (-1 + 4)!! \times \sqrt{4} \\ &= \sqrt{4} \times (4 - 1)!! + 1. \end{aligned}$$

$$\begin{aligned} 1442 &= (-1 + 4)!! \times \sqrt{4} + 2 \\ &= 2 + \sqrt{4} \times (4 - 1)!! \\ &= (1 + (2 + 4)!) \times \sqrt{4} \\ &= \sqrt{4} \times ((4 + 2)! + 1). \end{aligned}$$

$$\begin{aligned} 1443 &= (-1 + 4)!! \times \sqrt{4} + 3 \\ &= 3 + \sqrt{4} \times (4 - 1)!! \\ &= 1 + 3!! \times \sqrt{4} + \sqrt{4} \\ &= 4 + \sqrt{4} \times 3!! - 1. \end{aligned}$$

$$\begin{aligned} 1463 &= -1 + 4! + 6! + 3!! \\ &= 3!! + 6! + 4! - 1 \\ &= -1 + 3!! + 4! + 6! \\ &= 6! + 4! + 3!! - 1. \end{aligned}$$

$$\begin{aligned} 1464 &= 1 \times 4! + 6! \times \sqrt{4} \\ &= 4! + 6! \times \sqrt{4} \times 1 \\ &= (-1 + 4)!! + 4! + 6! \\ &= 6! + 4! + (4 - 1)!!. \end{aligned}$$

$$\begin{aligned} 2163 &= (2 + 1) \times 6! + 3 \\ &= 3 + 6! \times (1 + 2) \\ &= 1 + 2 + 3 \times 6! \\ &= 6! \times 3 + 2 + 1. \end{aligned}$$

$$\begin{aligned} 2520 &= (2 + 5)!/2 + 0 \\ &= 0 + (2 + 5)!/2 \\ &= (-0! + 22) \times 5! \\ &= (5 + 2)!/2 + 0. \end{aligned}$$

$$\begin{aligned} 2864 &= \sqrt{2 \times 8} \times (6! - 4) \\ &= 4 \times 6! - 8 \times 2 \\ &= 2 \times (\sqrt{4} \times 6! - 8) \\ &= 8 \times (6! - 4)/2. \end{aligned}$$

$$\begin{aligned} 2896 &= 2 \times (8 + (\sqrt{9})!! + 6!) \\ &= (6! + (\sqrt{9})!! + 8) \times 2 \\ &= 2 \times (6! + 8 + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! + 8 + 6!) \times 2. \end{aligned}$$

$$\begin{aligned} 2954 &= 2 + (\sqrt{9} + 5!) \times 4! \\ &= 4! \times (5! + \sqrt{9}) + 2 \\ &= 2 + 4! \times (5! + \sqrt{9}) \\ &= (\sqrt{9} + 5!) \times 4! + 2. \end{aligned}$$

$$\begin{aligned} 3125 &= (3 + 1 \times 2)^5 \\ &= 5^{2+1 \times 3} \\ &= 1 \times (2 + 3)^5 \\ &= 5^{3+2} \times 1. \end{aligned}$$

$$\begin{aligned} 3444 &= 3! \times (4!^{\sqrt{4}} - \sqrt{4}) \\ &= (4!^{\sqrt{4}} - \sqrt{4}) \times 3!. \end{aligned}$$

$$\begin{aligned} 3448 &= 3! \times \sqrt{4!^4} - 8 \\ &= -8 + \sqrt{4!^4} \times 3!. \end{aligned}$$

$$\begin{aligned} 3455 &= (3!! - 4! - 5) \times 5 \\ &= 5 \times (-5 - 4! + 3!!). \end{aligned}$$

$$\begin{aligned} 3456 &= -3! \times 4! + 5 \times 6! \\ &= 6!/5 \times 4 \times 3!. \\ 3459 &= 3!! \times 4!/5 + \sqrt{9} \\ &= (\sqrt{9})!!/5 \times 4! + 3. \end{aligned}$$

$$\begin{aligned} 3579 &= 3!! \times 5 - 7 \times \sqrt{9} \\ &= -\sqrt{9} \times 7 + 5 \times 3!. \end{aligned}$$

$$\begin{aligned} 3586 &= 3!! \times 5 - 8 - 6 \\ &= -6 - 8 + 5 \times 3!! \\ &= 3!! \times 5 - 6 - 8 \\ &= -8 - 6 + 5 \times 3!!.. \end{aligned}$$

$$\begin{aligned} 3589 &= 3!! \times 5 - 8 - \sqrt{9} \\ &= -\sqrt{9} - 8 + 5 \times 3!!.. \end{aligned}$$

$$\begin{aligned} 3591 &= 3!! \times 5 - 9 \times 1 \\ &= -1 \times 9 + 5 \times 3!! \\ &= 1 \times 3!! \times 5 - 9 \\ &= -9 + 5 \times 3!! \times 1. \end{aligned}$$

$$\begin{aligned} 3592 &= 3!! \times 5 - (\sqrt{9})! - 2 \\ &= -2^{\sqrt{9}} + 5 \times 3!! \\ &= -2^3 + 5 \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times 5 - 3! - 2. \end{aligned}$$

$$\begin{aligned} 3594 &= 3!! \times 5 - \sqrt{9 \times 4} \\ &= (\sqrt{4 \times 9})! \times 5 - 3! \\ &= -(\sqrt{\sqrt{3^4}})! + 5 \times (\sqrt{9})!! \\ &= -(\sqrt{9})! + \sqrt{\sqrt{5^4}} \times 3!!.. \end{aligned}$$

$$\begin{aligned} 3598 &= 3! + 5 \times (\sqrt{9})!! - 8 \\ &= -8 + (\sqrt{9})!! \times 5 + 3! \\ &= 3!! \times 5 - 8 + (\sqrt{9})! \\ &= (\sqrt{9})! - 8 + 5 \times 3!!.. \end{aligned}$$

$$\begin{aligned} 3599 &= 3!! \times 5 - 9/9 \\ &= -9/9 + 5 \times 3!!.. \end{aligned}$$

$$\begin{aligned} 3604 &= 3!! \times (6 - 0!) + 4 \\ &= 4 + (-0! + 6) \times 3!! \\ &= (0! + 3!!) \times 4 + 6! \\ &= 6! + 4 \times (3!! + 0!). \end{aligned}$$

$$\begin{aligned} 3605 &= 3!! \times (6 - 0!) + 5 \\ &= 5 + (-0! + 6) \times 3!! \\ &= -0! + 3! + 5 \times 6! \\ &= 6! \times 5 + 3! - 0!. \end{aligned}$$

$$\begin{aligned} 3625 &= (3 + 6! + 2) \times 5 \\ &= 5 \times (2 + 6! + 3) \\ &= (2 + 3) \times (5 + 6!) \\ &= (6! + 5) \times (3 + 2).. \end{aligned}$$

$$\begin{aligned} 3636 &= 3! \times (6 + 3!!) - 6! \\ &= 6 \times (3! + 6!) - 3!! \\ &= -3!! + 3! \times (6 + 6!) \\ &= (6 + 6!) \times 3! - 3!!.. \end{aligned}$$

$$\begin{aligned} 3744 &= -3!! + 7! - 4!^{\sqrt{4}} \\ &= -4!^{\sqrt{4}} + 7! - 3!! \\ &= -\sqrt{3!^{4+4}} + 7! \\ &= -7! \times \sqrt{4} + 4!^3.. \end{aligned}$$

$$\begin{aligned} 3996 &= (3!! - 9 \times (\sqrt{9})!) \times 6 \\ &= (6! - 9 \times (\sqrt{9})!) \times 3! \\ &= (3!! - 6 \times 9) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (-9 \times 6 + 3!!).. \end{aligned}$$

$$\begin{aligned} 4093 &= 4^{(\sqrt{0+9})!} - 3 \\ &= -3 + (9 - 0!)^4 \\ &= -03 + 4^{(\sqrt{9})!} \\ &= -\sqrt{9} + 4^{3!} \times 0!. \end{aligned}$$

$$\begin{aligned} 4094 &= -\sqrt{4} + (-0! + 9)^4 \\ &= -\sqrt{4} + (9 - 0!)^4 \\ &= -\sqrt{04} + 4^{(\sqrt{9})!} \\ &= -\sqrt{9} + \sqrt{\sqrt{4^{4!}}} + 0!. \end{aligned}$$

$$\begin{aligned} 4296 &= (-4 + (2 \times \sqrt{9})!) \times 6 \\ &= 6 \times ((\sqrt{9} \times 2)! - 4) \\ &= (-\sqrt{2^4} + 6!) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (6! - \sqrt{4^2}). \end{aligned}$$

$$\begin{aligned} 4314 &= 4! \times (-1 + 3!!)/4 \\ &= 4! \times (3!! - 1)/4 \\ &= (-1 + 3!!) \times 4!/4 \\ &= 4!/4 \times (3!! - 1).. \end{aligned}$$

$$\begin{aligned} 4316 &= \sqrt{4} + (3!! - 1) \times 6 \\ &= 6 \times 1 \times 3!! - 4 \\ &= (1 + 3!)! - 4 - 6! \\ &= -6! - 4 + (3! + 1)!. \end{aligned}$$

$$\begin{aligned} 4317 &= -4 - 3!! + 1 + 7! \\ &= 7! + 1 - 3!! - 4 \\ &= 1 - 3!! - 4 + 7! \\ &= 7! - 4 - 3!! + 1.. \end{aligned}$$

$$\begin{aligned} 4319 &= (4 + 3)! - 1 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - 1 + (3 + 4)! \\ &= -1 + (3 + 4)! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (4 + 3)! - 1.. \end{aligned}$$

$$\begin{aligned} 4332 &= (\sqrt{4} + 3!!) \times 3 \times 2 \\ &= (2 + 3!!) \times 3 \times \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 4337 &= (4 + 3!!) \times 3! - 7 \\ &= -7 + 3! \times (3!! + 4) \\ &= 3! \times 3!! + 4! - 7 \\ &= -7 + 4! + 3! \times 3!!.. \end{aligned}$$

$$\begin{aligned} 4344 &= 4! \times (3!! + 4)/4 \\ &= 4! \times (4 + 3!!)/4 \\ &= 3! \times (4 + (4!/4))! \\ &= (4 + (4!/4))! \times 3!. \end{aligned}$$

$$\begin{aligned} 4368 &= \sqrt{4} \times 3 \times (6! + 8) \\ &= (8 + 6!) \times 3 \times \sqrt{4} \\ &= \sqrt{\sqrt{3^4}!} \times (6! + 8) \\ &= (8 + (\sqrt{\sqrt{6^4}})!) \times 3!. \end{aligned}$$

$$\begin{aligned} 4464 &= 4! \times (4! + 6!)/4 \\ &= 4! \times (6! + 4!)/4 \\ &= (4! + (4!/4)!) \times 6 \\ &= 6 \times (4! + (4!/4)!). \end{aligned}$$

$$\begin{aligned} 4466 &= 6 \times (6! + 4!) + \sqrt{4} \\ &= \sqrt{4} + (4! + 6!) \times 6. \end{aligned}$$

$$\begin{aligned} 4944 &= (\sqrt{49})! - 4 \times 4! \\ &= -4 \times 4! + (9 - \sqrt{4})! \\ &= -4! \times 4 + (\sqrt{49})! \\ &= (\sqrt{9} + 4)! - 4 \times 4!. \end{aligned}$$

$$\begin{aligned} 5017 &= -(5 - 0!)! + 1 + 7! \\ &= 7! + 1 - (-0! + 5)! \\ &= 0! - (-1 + 5)! + 7! \\ &= 7! - (5 - 1)! + 0!. \end{aligned}$$

$$\begin{aligned} 5034 &= -5 - 0! + (3 + 4)! \\ &= (4 + 3)! - 0! - 5 \\ &= -0! + (3 + 4)! - 5 \\ &= -5 + (4 + 3)! - 0!. \end{aligned}$$

$$\begin{aligned} 5035 &= (5 - 0! + 3)! - 5 \\ &= (5 + 3 - 0!)! - 5 \\ &= (-0! + 3 + 5)! - 5 \\ &= -5 + (5 + 3 - 0!)!. \end{aligned}$$

$$\begin{aligned} 5037 &= 5 \times 0 - 3 + 7! \\ &= 7! - 3 + 0/5 \\ &= -0! + 3 - 5 + 7! \\ &= 7! - 5 + 3 - 0!. \end{aligned}$$

$$\begin{aligned} 5039 &= 5 + (0! + 3!)! - (\sqrt{9})! \\ &= -(\sqrt{9})! + (3! + 0!)! + 5 \\ &= -0! + (3 - 5 + 9)! \\ &= (9 - 5 + 3)! - 0!. \end{aligned}$$

$$\begin{aligned} 5167 &= 7 + (6 + 1)! + 5! \\ &= 5! + (1 + 6)! + 7 \\ &= 1 + 5! + 6 + 7! \\ &= 7! + 6 + 5! + 1. \end{aligned}$$

$$\begin{aligned} 5275 &= 5! \times 2 + 7! - 5 \\ &= -5 + 7! + 2 \times 5! \\ &= 2 \times 5! - 5 + 7! \\ &= 7! - 5 + 5! \times 2. \end{aligned}$$

$$\begin{aligned} 5397 &= 5! \times 3 - \sqrt{9} + 7! \\ &= 7! - \sqrt{9} + 3 \times 5! \\ &= 3 \times 5! + 7! - \sqrt{9} \\ &= -\sqrt{9} + 7! + 5! \times 3. \end{aligned}$$

$$\begin{aligned} 5568 &= (-5!/5 + 6!) \times 8 \\ &= 8 \times (6! - 5!/5). \end{aligned}$$

$$\begin{aligned} 5637 &= -5! + 6! - 3 + 7! \\ &= 7! - 3 + 6! - 5! \\ &= -3 - 5! + 6! + 7! \\ &= 7! + 6! - 5! - 3. \end{aligned}$$

$$\begin{aligned} 5765 &= 5 + 7! + 6 \times 5! \\ &= 5! \times 6 + 7! + 5 \\ &= 5 + 5! \times 6 + 7! \\ &= 7! + 6 \times 5! + 5. \end{aligned}$$

$$\begin{aligned} 5875 &= 5! + 8!/7 - 5 \\ &= 5! \times \sqrt{\sqrt{7^8}} - 5 \\ &= -5 + 5! \times \sqrt{\sqrt{7^8}} \\ &= 8!/7 - 5 + 5!. \end{aligned}$$

$$\begin{aligned} 6399 &= ((6 - 3)!! - 9) \times 9 \\ &= 9 \times (-9 + (\sqrt{36})!) \\ &= ((\sqrt{36})! - 9) \times 9 \\ &= 9 \times (-9 + (6 - 3)!!). \end{aligned}$$

$$\begin{aligned} 6476 &= 6! - 4 + 7! + 6! \\ &= 6! + 7! - 4 + 6! \\ &= -4 + 6! + 6! + 7! \\ &= 7! + 6! + 6! - 4. \end{aligned}$$

$$\begin{aligned} 6494 &= (6! + \sqrt{4}) \times 9 - 4 \\ &= -4 + 9 \times (\sqrt{4} + 6!) \\ &= -4 + (\sqrt{4} + 6!) \times 9 \\ &= 9 \times (6! + \sqrt{4}) - 4. \end{aligned}$$

$$\begin{aligned} 6696 &= \sqrt{6^6} + 9 \times 6! \\ &= 6! \times 9 + \sqrt{6^6} \\ &= \sqrt{6^6} + 6! \times 9 \\ &= 9 \times 6! + \sqrt{6^6}. \end{aligned}$$

$$\begin{aligned} 6839 &= (6! + 8! - 3!)/(\sqrt{9})! \\ &= ((\sqrt{9})!! - 3! + 8!)/6 \\ &= (3!! - 6 + 8!)/(\sqrt{9})! \\ &= (\sqrt{9})!! + (8! - 6)/3!. \end{aligned}$$

$$\begin{aligned} 7199 &= 7! - 1 + \sqrt{9} \times (\sqrt{9})!! \\ &= \sqrt{9} \times (\sqrt{9})!! - 1 + 7! \\ &= -1 + 7! + \sqrt{9} \times (\sqrt{9})!! \\ &= \sqrt{9} \times (\sqrt{9})!! + 7! - 1. \end{aligned}$$

$$\begin{aligned} 7944 &= 7! + (\sqrt{9})!! \times 4 + 4! \\ &= 4! + (\sqrt{4} + 9)!/7! \\ &= 4! + (4 + 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 + 4) + 4!. \end{aligned}$$

$$\begin{aligned} 8632 &= -8 + 6! \times 3! \times 2 \\ &= 2 \times 3! \times 6! - 8 \\ &= 2 \times 3! \times 6! - 8 \\ &= -8 + 6! \times 3! \times 2. \end{aligned}$$

$$\begin{aligned} 9372 &= -(\sqrt{9})!! + (3! + 7!) \times 2 \\ &= 2 \times (7! + 3!) - (\sqrt{9})!! \\ &= 2 \times (3! + 7!) - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (7! + 3!) \times 2. \end{aligned}$$

$$\begin{aligned} 9595 &= (\sqrt{9})!! \times 5!/9 - 5 \\ &= -5 + (\sqrt{9})!! \times 5!/9 \\ &= -5 + 5! \times (\sqrt{9})!!/9 \\ &= (\sqrt{9})!!/9 \times 5! - 5. \end{aligned}$$

$$\begin{aligned} 9972 &= (-9 \times (\sqrt{9})! + 7!) \times 2 \\ &= 2 \times (7! - 9 \times (\sqrt{9})!) \\ &= 2 \times (7! - (\sqrt{9})! \times 9) \\ &= -(\sqrt{9})! \times 9 + 7!) \times 2. \end{aligned}$$

#### 4.2.4 Five Digits Unified Selfie Numbers

$$\begin{aligned} 10067 &= -1 + (0! + 0!) \times (-6 + 7!) \\ &= (7! - 6) \times (0! + 0!) - 1 \\ &= -0! + (0! + 1) \times (-6 + 7!) \\ &= (7! - 6) \times (1 + 0!) - 0!. \end{aligned}$$

$$\begin{aligned} 10073 &= -1 + (0! + 0!) \times (7! - 3) \\ &= (-3 + 7!) \times (0! + 0!) - 1 \\ &= -0! + (0! + 1) \times (-3 + 7!) \\ &= (7! - 3) \times (1 + 0!) - 0!. \end{aligned}$$

$$\begin{aligned} 10074 &= (1 + 0!) \times (0! + 7! - 4) \\ &= (-4 + 7! + 0!) \times (0! + 1) \\ &= (0! + 0!) \times (1 - 4 + 7!) \\ &= (7! - 4 + 1) \times (0! + 0!). \end{aligned}$$

$$\begin{aligned} 10077 &= -\sqrt{10 - 0!} + 7! + 7! \\ &= 7! + 7! - 0! - 0! - 1 \\ &= -0! - 0! - 1 + 7! + 7! \\ &= 7! + 7! - 1 - 0! - 0!. \end{aligned}$$

$$\begin{aligned} 10080 &= (1 + 0!) \times (-0! + 8)! + 0 \\ &= 0 + (8 - 0!)! \times (0! + 1) \\ &= (0! + 0!) \times (-01 + 8)! \\ &= (8 - 1 \times 0!)! \times (0! + 0!). \end{aligned}$$

$$\begin{aligned} 10081 &= (1 + 0!) \times (-0! + 8)! + 1 \\ &= 1 + (8 - 0!)! \times (0! + 1) \\ &= 0! + (0! + 1) \times (-1 + 8)! \\ &= (8 - 1)! \times (1 + 0!) + 0!. \end{aligned}$$

$$\begin{aligned} 10087 &= (1 + 0!) \times (-0! + 8)! + 7 \\ &= 7 + (8 - 0!)! \times (0! + 1) \\ &= -0! + (0! + 1) \times 7! + 8 \\ &= 8 + 7! \times (1 + 0!) - 0!. \end{aligned}$$

$$\begin{aligned} 10088 &= (1 + 0!) \times (-0! + 8)! + 8 \\ &= 8 + (8 - 0!)! \times (0! + 1) \\ &= (0! + 0!) \times (-1 + 8)! + 8 \\ &= 8 + (8 - 1)! \times (0! + 0!). \end{aligned}$$

$$\begin{aligned} 10089 &= (1 + 0!) \times (-0! + 8)! + 9 \\ &= 9 + (8 - 0!)! \times (0! + 1) \\ &= (0! + 0!) \times (-1 + 8)! + 9 \\ &= 9 + (8 - 1)! \times (0! + 0!). \end{aligned}$$

$$\begin{aligned} 10097 &= -1 + (0! + 0!) \times (9 + 7!) \\ &= (7! + 9) \times (0! + 0!) - 1 \\ &= -0! + (0! + 1) \times (7! + 9) \\ &= (9 + 7!) \times (1 + 0!) - 0!. \end{aligned}$$

$$\begin{aligned} 10368 &= (1 + 0!)^3 \times \sqrt{6^8} \\ &= 8 \times 6^{3+0!} \\ &= (0! + 1 + 3!) \times \sqrt{6^8} \\ &= 8 \times 6^{3+1 \times 0!}. \end{aligned}$$

$$\begin{aligned} 10798 &= -1 - 0! + 7! + (\sqrt{9})!! \times 8 \\ &= 8 \times (\sqrt{9})!! + 7! - 0! - 1 \\ &= -(0! + 1)! + (7 + 8) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (8 + 7) - 1 - 0!. \end{aligned}$$

$$\begin{aligned} 10799 &= -1 + (-0! + 7 + 9) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (9 + 7 - 0!) - 1 \\ &= -0! + (-1 + 7 + 9) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (9 + 7 - 1) - 0!. \end{aligned}$$

$$\begin{aligned} 11344 &= (-11 + 3!!) \times 4 \times 4 \\ &= 4 \times 4 \times (3!! - 11). \end{aligned}$$

$$\begin{aligned} 11519 &= -1 + (15 + 1) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (15 + 1) - 1 \\ &= -1 + (1 + 15) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (5 + 11) - 1. \end{aligned}$$

$$\begin{aligned} 11664 &= 1 \times 1 \times 6^6 / 4 \\ &= ((4! - 6) \times 6)^{1+1} \\ &= (1 + 1) \times \sqrt{(4! - 6)^6} \\ &= 6^6 / (4 - 1 + 1). \end{aligned}$$

$$\begin{aligned} 12274 &= ((1 + 2)!! + 2) \times (-7 + 4!) \\ &= (4! - 7) \times (2 + (2 + 1)!!) \\ &= ((1 + 2)!! + 2) \times (4! - 7) \\ &= (-7 + 4!) \times (2! + (2 + 1)!!). \end{aligned}$$

$$\begin{aligned} 12288 &= (1 + 2)! \times 2^8 \times 8 \\ &= (8 \times 8)^2 \times (2 + 1). \end{aligned}$$

$$\begin{aligned} 12289 &= 1 + (2 + 2)! \times 8^{\sqrt{9}} \\ &= \sqrt{9} \times 8^{2 \times 2} + 1. \end{aligned}$$

$$\begin{aligned} 12294 &= (1 + 2)! + 2^9 \times 4! \\ &= (4^{(\sqrt{9})!} + 2) \times (2 + 1) \\ &= (1 \times 2 + \sqrt{2^{4!}}) \times \sqrt{9} \\ &= (\sqrt{9})! \times (\sqrt{\sqrt{4^{2!}} + 1}). \end{aligned}$$

$$\begin{aligned} 12599 &= -1 + 25 \times 9! / (\sqrt{9})!! \\ &= 9! / (\sqrt{9})!! \times 5^2 - 1. \end{aligned}$$

$$\begin{aligned} 12923 &= -1 + 2 \times 9 \times (-2 + 3!!) \\ &= (3!! - 2) \times (9 \times 2) - 1 \\ &= -1 + 2 \times (-2 + 3!!) \times 9 \\ &= 9 \times (3!! - 2) \times 2 - 1. \end{aligned}$$

$$\begin{aligned} 12933 &= (1 + 2) \times (-9 + 3! \times 3!!) \\ &= (3! \times 3!! - 9) \times (2 + 1) \\ &= ((1 + 2)!! - 3 + 3!!) \times 9 \\ &= 9 \times (3!! - 3 + (2 + 1)!!). \end{aligned}$$

$$\begin{aligned} 12959 &= -1 + 2 \times 9 \times 5! \times (\sqrt{9})! \\ &= 9! / (5! - 92) - 1 \\ &= -1 + (-2 + 5)!! \times (9 + 9) \\ &= (9 + 9) \times (5 - 2)!! - 1. \end{aligned}$$

$$\begin{aligned} 12960 &= 1 \times 2 \times 9 \times 6! + 0 \\ &= 0 + 6! \times 9 \times 2 \times 1 \\ &= 01 \times 2 \times 6! \times 9 \\ &= 9! / (6 + 21 + 0!). \end{aligned}$$

$$\begin{aligned} 12961 &= 1 + 2 \times 9 \times 6! \times 1 \\ &= 1 + 6! \times 9 \times 2 \times 1 \\ &= (-1 + 1)! + 2 \times 6! \times 9 \\ &= 9 \times 6! \times 2 + (-1 + 1)!. \end{aligned}$$

$$\begin{aligned} 12962 &= 1 \times 2 + 9 \times 6! \times 2 \\ &= 2 + 6! \times 9 \times 2 \times 1 \\ &= 1 \times 2 + 2 \times 6! \times 9 \\ &= 9 \times 6! \times 2 + 2 \times 1. \end{aligned}$$

$$\begin{aligned} 12963 &= 1 \times 2 \times 9 \times 6! + 3 \\ &= 3 + 6! \times 9 \times 2 \times 1 \\ &= 1 + 2 + (3!! + 6!) \times 9 \\ &= 9 \times (6! + 3!!) + 2 + 1. \end{aligned}$$

$$\begin{aligned}12966 &= 1 \times 2 \times 9 \times 6! + 6 \\&= 6 + 6! \times 9 \times 2 \times 1 \\&= (1+2)! + (6!+6!) \times 9 \\&= 9 \times (6!+6!) + (2+1)!.\\12967 &= 1 \times 2 \times 9 \times 6! + 7 \\&= 7 + 6! \times 9 \times 2 \times 1 \\&= 1 + (2-6!+7!) \times \sqrt{9} \\&= \sqrt{9} \times (7!-6!+2) + 1.\end{aligned}$$

$$\begin{aligned}12969 &= 1 \times 2 \times 9 \times 6! + 9 \\&= 9 + 6! \times 9 \times 2 \times 1 \\&= 1 \times 2 \times 6! \times 9 + 9 \\&= 9 + 9 \times 6! \times 2 \times 1.\end{aligned}$$

$$\begin{aligned}12975 &= (1+2) \times (-(\sqrt{9})!! + 7! + 5) \\&= (5+7! - (\sqrt{9})!!) \times (2+1) \\&= (-(1+2)!! + 5+7!) \times \sqrt{9} \\&= \sqrt{9} \times (7! + 5 - (2+1)!!).\end{aligned}$$

$$\begin{aligned}12993 &= (-1 + (2 + (\sqrt{9})!!) \times (\sqrt{9})!) \times 3 \\&= 3 \times ((\sqrt{9})! \times ((\sqrt{9})!! + 2) - 1) \\&= (-1 + (2 + 3)!!) \times (\sqrt{9})! \times \sqrt{9} \\&= \sqrt{9} \times ((\sqrt{9})! \times (3!! + 2) - 1).\end{aligned}$$

$$\begin{aligned}12996 &= 1 \times (2 + (\sqrt{9})!!) \times \sqrt{9} \times 6 \\&= 6 \times \sqrt{9} \times ((\sqrt{9})!! + 2) \times 1 \\&= (1 \times 2 + 6!) \times (9 + 9) \\&= (9 + 9) \times (6! + 2 \times 1).\end{aligned}$$

$$\begin{aligned}13439 &= ((1+3+4)! - 3)/\sqrt{9} \\&= 9!/(3^4/3) - 1 \\&= -1 + (3+3+\sqrt{4})!/\sqrt{9} \\&= (9-4+3)!/3 - 1.\end{aligned}$$

$$\begin{aligned}13555 &= (-1-3!+5!) \times 5! - 5 \\&= -5 + 5! \times (5! - 3! - 1).\end{aligned}$$

$$\begin{aligned}13557 &= -1 \times 3 + 5! \times (5! - 7) \\&= (-7+5!) \times 5! - 3 \times 1.\end{aligned}$$

$$\begin{aligned}13566 &= ((1+3)! - 5) \times (6! - 6) \\&= (-6+6!) \times (-5 + (3+1)!).\end{aligned}$$

$$\begin{aligned}13679 &= -1 + (3! + 6 + 7) \times (\sqrt{9})!! \\&= (\sqrt{9})!! \times (7 + 6 + 3!) - 1.\end{aligned}$$

$$\begin{aligned}13823 &= -1 + \sqrt{(3 \times 8)^{2 \times 3}} \\&= (32-8)^3 - 1 \\&= -1 + (2 \times 3!)^3 \times 8 \\&= (8 \times 3)^3 - 2 + 1.\end{aligned}$$

$$\begin{aligned}13824 &= 1 \times (3 \times 8)^2 \times 4! \\&= (-4+28)^3 \times 1 \\&= (1+23)^{4!/8} \\&= (8-4)!^3 \times (2-1).\end{aligned}$$

$$\begin{aligned}13924 &= \sqrt{((-1-3+9)!-2)^4} \\&= (\sqrt{4} - (2+\sqrt{9})!)^{3-1} \\&= (1+3)!^3 + \sqrt{4} + 8 \\&= 8 + 4!^3 + 3 - 1.\end{aligned}$$

$$\begin{aligned}14335 &= (-1+4 \times (-3+3)!!) \times 5 \\&= 5 \times ((3!!-3) \times 4-1) \\&= (-13+3)!! \times 4 \times 5 \\&= 5 \times (4 \times (3!!-3) - 1).\end{aligned}$$

$$\begin{aligned}14395 &= (-1+4 \times (-3+9)!) \times 5 \\&= 5 \times ((9-3)!! \times 4-1) \\&= 1-3!+4 \times 5 \times (\sqrt{9})!! \\&= (9!-5!)/4!-3!! \times 1.\end{aligned}$$

$$\begin{aligned}14397 &= 1-4+(-3)!!+\sqrt{9} \times 7! \\&= 7! \times \sqrt{9}-3!!-4+1 \\&= (-1+3)!! \times (-\sqrt{4}+7)!-\sqrt{9} \\&= -9+7^4 \times 3! \times 1.\end{aligned}$$

$$\begin{aligned}14399 &= -1+(4+3)! \times \sqrt{9}-(\sqrt{9})!! \\&= ((\sqrt{9})!!/(9-3))^{\sqrt{4}}-1 \\&= \sqrt{(-1+3)!!^4}-(-9+9)! \\&= (\sqrt{9})!! \times (9-4)!/3!-1.\end{aligned}$$

$$\begin{aligned}14400 &= (1+4)^{\sqrt{4}}+0+0 \\&= 0+(0!+4)^{\sqrt{4}} \times 1 \\&= (0!+0!+1)!! \times (-4+4)! \\&= (4! \times (4+1))^{0!+0!}.\end{aligned}$$

$$\begin{aligned}14405 &= (1+4)^{(\sqrt{9})!}-(0!+5)! \\&= 5^{(\sqrt{0+9})!}-(4-1)!! \\&= -(-01+4)!!+5^{(\sqrt{9})!} \\&= -(\sqrt{9})!!+5^{-4+10}.\end{aligned}$$

$$\begin{aligned}14515 &= (1+4)! \times (5!+1)-5 \\&= 5! \times (1+5!)-4-1 \\&= (1+(1+4)!) \times 5!-5 \\&= -5+5! \times ((4+1)!!+1).\end{aligned}$$

$$\begin{aligned}14543 &= -1+(\sqrt{4+5})!!+4!^3 \\&= 3! \times 4!+5!^{\sqrt{4}}-1 \\&= -1+3!!+4!^{\sqrt{4+5}} \\&= (\sqrt{5+4})!!+4!^3-1.\end{aligned}$$

$$\begin{aligned}14544 &= (1+4)!+5!^{\sqrt{4}}+4! \\&= 4!^{\sqrt{4+5}}+(4-1)!! \\&= (-1+4)!!+4!^{\sqrt{4+5}} \\&= (\sqrt{5+4})!!+4!^{4-1}.\end{aligned}$$

$$\begin{aligned}14567 &= -1+4! \times (-5!+6!+7) \\&= (7+6!-5!) \times 4!-1.\end{aligned}$$

$$\begin{aligned}14753 &= -1+(-\sqrt{4}+7!-5!) \times 3 \\&= 3 \times (-5!+7!-\sqrt{4})-1 \\&= -1-3 \times (\sqrt{4}+5!-7!) \\&= (7!-5!-\sqrt{4}) \times 3-1.\end{aligned}$$

$$\begin{aligned}14754 &= (-1+4) \times (7!-5!-\sqrt{4}) \\&= (-\sqrt{4}-5!+7!) \times (4-1) \\&= (-1+4) \times (-\sqrt{4}-5!+7!) \\&= (7!-5!-\sqrt{4}) \times (4-1).\end{aligned}$$

$$\begin{aligned}14759 &= 1-\sqrt{4}+(7!-5!) \times \sqrt{9} \\&= (\sqrt{9}+5!) \times (7-\sqrt{4})!-1 \\&= -1^4+(-5!+7!) \times \sqrt{9} \\&= \sqrt{9} \times (7!-(\sqrt{\sqrt{5^4}})!) - 1.\end{aligned}$$

$$\begin{aligned}14905 &= (1+4)^{(\sqrt{9})!}-(0!+5)! \\&= 5^{(\sqrt{0+9})!}-(4-1)!! \\&= -(-01+4)!!+5^{(\sqrt{9})!} \\&= -(\sqrt{9})!!+5^{-4+10}.\end{aligned}$$

$$\begin{aligned} 14973 &= -1 \times (49 - 7!) \times 3 \\ &= 3 \times (7! - 9) - (4 + 1)! \\ &= (-1 \times 3 + 4!) \times (-7 + (\sqrt{9}!!)) \\ &= ((\sqrt{9})!! - 7) \times (4! - 3) \times 1. \end{aligned}$$

$$\begin{aligned} 15585 &= 1 \times (5^5 - 8) \times 5 \\ &= 5 \times (-8 + 5^5) \times 1 \\ &= 1 \times 5 \times (5^5 - 8) \\ &= -8 \times 5 + 5^{5+1}. \end{aligned}$$

$$\begin{aligned} 16384 &= 16^3 \times (8 - 4) \\ &= (\sqrt{48/3})^{6+1} \\ &= (1 - 3 + 4)^{6+8} \\ &= (8/(6 - 4))^{3!+1}. \end{aligned}$$

$$\begin{aligned} 14975 &= -1 - 4! + \sqrt{9} \times 7! - 5! \\ &= -5! + 7! \times \sqrt{9} - 4! - 1 \\ &= -145 + 7! \times \sqrt{9} \\ &= \sqrt{9} \times 7! - 5! - 4! - 1. \end{aligned}$$

$$\begin{aligned} 15589 &= (-1 + 5!) \times (5! + 8 + \sqrt{9}) \\ &= (\sqrt{9} + 8 + 5!) \times (5! - 1). \end{aligned}$$

$$\begin{aligned} 16464 &= -1 \times 6! + (-4 + 6!) \times 4! \\ &= 4! \times (6! - 4) - 6! \times 1 \\ &= 1 \times 4! \times (-4 + 6!) - 6! \\ &= -6! + (6! - 4) \times 4! \times 1. \end{aligned}$$

$$\begin{aligned} 14993 &= -1 + (4! - \sqrt{9}) \times ((\sqrt{9})!! - 3!) \\ &= (3! - (\sqrt{9})!!) \times (\sqrt{9} - 4!) - 1 \\ &= -1 + (-3 + 4!) \times (-(\sqrt{9})! + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! - (\sqrt{9})!) \times (4! - 3) - 1. \end{aligned}$$

$$\begin{aligned} 15595 &= 1 \times (5^5 - (\sqrt{9})!) \times 5 \\ &= 5^{(\sqrt{9})!} - 5 \times (5 + 1) \end{aligned}$$

$$\begin{aligned} 16537 &= (-1 + 6!) \times (5 \times 3! - 7) \\ &= (-7 + 3! \times 5) \times (6! - 1) \\ &= (-1 + 3!!) \times (5 \times 6 - 7) \\ &= (-7 + 6 \times 5) \times (3!! - 1). \end{aligned}$$

$$\begin{aligned} 14994 &= -14 \times 9 + 9!/4! \\ &= (4! - \sqrt{9}) \times ((\sqrt{9})!! - (4 - 1)!) \\ &= (1 - 4 + 4!) \times ((\sqrt{9})!! - (\sqrt{9})!) \\ &= -(\sqrt{9})! + (\sqrt{9})!! \times \sqrt{441}. \end{aligned}$$

$$\begin{aligned} 15624 &= 1 + 5^6 + 2 - 4 \\ &= (\sqrt{4^2})! \times 651 \\ &= -1^2 4 + 5^6 \\ &= 6 \times (5! + 4) \times 21. \end{aligned}$$

$$\begin{aligned} 16559 &= -1 - 6! + (5!/5) \times (\sqrt{9})!! \\ &= (\sqrt{9})!!/5 \times 5! - 6! - 1 \\ &= -1 + (5! + 5!) \times 69 \\ &= -(\sqrt{9})!! + 6! \times 5!/5 - 1. \end{aligned}$$

$$\begin{aligned} 14997 &= -(1 + 4)! - \sqrt{9} + \sqrt{9} \times 7! \\ &= 7! \times \sqrt{9} - \sqrt{9} \times 41 \\ &= -(1 + 4)! + 7! \times \sqrt{9} - \sqrt{9} \\ &= \sqrt{\sqrt{9} \times 9} \times (7! - 41). \end{aligned}$$

$$\begin{aligned} 15625 &= 1 \times 5^{(6+2-5)!} \\ &= 5^{2 \times 6 - 5 - 1} \\ &= 1 \times (25/5)^6 \\ &= (6 - 5) \times 5^{2+1}!. \end{aligned}$$

$$\begin{aligned} 16807 &= \sqrt{(1 + 6)^8} \times (0 + 7) \\ &= 7^{0 \times 8 + 6 - 1} \\ &= (01 + 6) \times \sqrt{7^8} \\ &= \sqrt{(8 - 7 + 6)^{10}}. \end{aligned}$$

$$\begin{aligned} 15097 &= 1 - (5 - 0!)! + \sqrt{9} \times 7! \\ &= 7! \times \sqrt{9} + 0! - (5 - 1)! \\ &= 0! - (-1 + 5)! + 7! \times \sqrt{9} \\ &= \sqrt{9} \times 7! - (5 - 1)! + 0!. \end{aligned}$$

$$\begin{aligned} 15631 &= 1 + 5^6 + 3! - 1 \\ &= (-1 + 3!)^6 + 5 + 1 \\ &= (1 - 1 + 3)! + 5^6 \\ &= 6 + 5^{(3-1+1)!}. \end{aligned}$$

$$\begin{aligned} 16944 &= (-1 + 6! - 9 - 4) \times 4! \\ &= 4! \times (-4 - 9 + 6! - 1) \\ &= -(1 + 4)! + 4! \times (6! - 9) \\ &= (-9 + 6!) \times 4! - (4 + 1)!. \end{aligned}$$

$$\begin{aligned} 15119 &= -1 + (5 + 1 + 1)! \times \sqrt{9} \\ &= 9! / (\sqrt{1 + 15})! - 1 \\ &= -1 + (1 + 1 + 5)! \times \sqrt{9} \\ &= 9! / (5 - 1)! - 1 \times 1. \end{aligned}$$

$$\begin{aligned} 15635 &= -1 + 5^6 + 3! + 5 \\ &= 5^{3!} + 6 + 5 - 1 \\ &= (-1 + 3) \times 5 + 5^6 \\ &= 6 + 5 + 5^{3!} - 1. \end{aligned}$$

$$\begin{aligned} 16945 &= 1 + (6! - 9) \times 4! - 5! \\ &= -5! + 4! \times (-9 + 6!) + 1 \\ &= 1 - 4! \times (5 - 6! + 9) \\ &= (-9 + 6! - 5) \times 4! + 1. \end{aligned}$$

$$\begin{aligned} 15473 &= -1 + (5! - \sqrt{4} + 7!) \times 3 \\ &= 3 \times (7! - \sqrt{4} + 5!) - 1 \\ &= -1 + 3 \times (-\sqrt{4} + 5! + 7!) \\ &= (7! + 5! - \sqrt{4}) \times 3 - 1. \end{aligned}$$

$$\begin{aligned} 15655 &= 1 \times 5 \times (6 + 5^5) \\ &= (5^5 + 6) \times 5 \times 1 \\ &= (1 + 5) \times 5 + 5^6 \\ &= 6 \times 5 + 5^{5+1}. \end{aligned}$$

$$\begin{aligned} 17232 &= ((1 + 7)/2)! \times (3!! - 2) \\ &= (-2 + 3!)! \times (-2 + (7 - 1)!!) \\ &= ((1 + 2)!! - 2) \times (-3 + 7)! \\ &= (7 - 3)! \times (-2 + (2 + 1)!!). \end{aligned}$$

$$\begin{aligned} 15479 &= -1^4 + (5! + 7!) \times \sqrt{9} \\ &= ((\sqrt{9})!! - 75) \times 4! - 1 \\ &= (1 + 5!) \times \sqrt{4^7} - 9 \\ &= (9 + (7 - \sqrt{4})!) \times 5! - 1. \end{aligned}$$

$$\begin{aligned} 16345 &= (-1 + 6)^{3!} + (\sqrt{4 + 5})!! \\ &= \sqrt{5^{4 \times 3}} + 6! \times 1 \\ &= (-1 + 3 + 4)! + 5^6 \\ &= 6! + 5^{4+3-1}. \end{aligned}$$

$$\begin{aligned} 17274 &= 1 - 7 + (\sqrt{2 + 7})!! \times 4! \\ &= 4! \times (\sqrt{7 + 2})!! - 7 + 1 \\ &= -(1 + 2)! + 4! \times 7!/7 \\ &= 7!/7 \times 4! - (2 + 1)!. \end{aligned}$$

$$\begin{aligned} 17279 &= -1 + (\sqrt{2+7})!! \times (\sqrt{7+9})! \\ &= 9!/(7+7 \times 2) - 1 \\ &= -1 + (7+2)!/(7 \times \sqrt{9}) \\ &= 9!/(7+2 \times 7) - 1. \end{aligned}$$

$$\begin{aligned} 17303 &= -1 + (7-3)! \times (0! + 3!!) \\ &= (3!! + 0!) \times (-3+7)! - 1 \\ &= -0! + (1+3!!) \times (-3+7)! \\ &= (7-3)! \times (3!! + 1) - 0!. \end{aligned}$$

$$\begin{aligned} 17329 &= 1 + (7-3)! \times (2 + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! + 2) \times (-3+7)! + 1 \\ &= 1 + (2+3!!) \times (\sqrt{7+9})! \\ &= (\sqrt{9+7})! \times (3!! + 2) + 1. \end{aligned}$$

$$\begin{aligned} 17346 &= ((-1+7)! + 3) \times 4! - 6 \\ &= -6 + (4! \times (3 + (7-1)!!)) \\ &= (1+3!!) \times 4! + 6 \times 7 \\ &= 7 \times 6 + 4! \times (3!! + 1). \end{aligned}$$

$$\begin{aligned} 17349 &= ((-1+7)! + 3) \times 4! - \sqrt{9} \\ &= -\sqrt{9} + 4! \times (3 + (7-1)!!) \\ &= (-1+3!! + 4! + 7!) \times \sqrt{9} \\ &= \sqrt{9} \times (7! + 4! + 3!! - 1). \end{aligned}$$

$$\begin{aligned} 17449 &= 1 + 7 \times 4! + 4! \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times 4! + 4! \times 7 + 1 \\ &= 1^{4!} + 4! \times (7 + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! + 7) \times (\sqrt{4 \times 9})! + 1. \end{aligned}$$

$$\begin{aligned} 17496 &= (-1+7) \times 4 \times \sqrt{9^6} \\ &= ((6 \times \sqrt{9})^4)/(7-1) \\ &= (-1+4)^6 \times (\sqrt{7+9})! \\ &= \sqrt{9^7 \times 64} \times 1. \end{aligned}$$

$$\begin{aligned} 19344 &= ((1+\sqrt{9})! + 3!!) \times (4! + \sqrt{4}) \\ &= (4! + \sqrt{4}) \times (3!! + (\sqrt{9}+1)!!) \\ &= (-1+3+4!) \times (4! + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! - 4 \times 4!) \times 31. \end{aligned}$$

$$\begin{aligned} 19368 &= 1 \times 9 \times (3 \times 6! - 8) \\ &= (-8 + 6! \times 3) \times 9 \times 1 \\ &= (1 \times 3 \times 6! - 8) \times 9 \\ &= 9 \times (-8 + 6! \times 3 \times 1). \end{aligned}$$

$$\begin{aligned} 19413 &= (-1 + (\sqrt{9})!!) \times (4-1)^3 \\ &= (31-4) \times ((\sqrt{9})!! - 1) \\ &= (-1+1 \times 3!!) \times (4! + \sqrt{9}) \\ &= (\sqrt{9}+4!) \times (3!! \times 1 - 1). \end{aligned}$$

$$\begin{aligned} 19433 &= -1 + (\sqrt{9} + 4!) \times 3!! - 3! \\ &= 3!! \times (3+4!) - (\sqrt{9})! - 1 \\ &= -1 + 3!! \times (3+4!) - (\sqrt{9})! \\ &= (\sqrt{9})!! \times (4! + 3) - 3! - 1. \end{aligned}$$

$$\begin{aligned} 19435 &= (-1 + (\sqrt{9})!)^4 \times 3 \times 5 \\ &= 5 \times (3!)^4 \times \sqrt{9} - 1 \\ &= (1+3!)! \times 4 - 5 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - 5 + 4 \times (3! + 1)!. \end{aligned}$$

$$\begin{aligned} 19436 &= -1 - \sqrt{9} + (4! + 3) \times 6! \\ &= 6! \times (3+4!) - \sqrt{9} - 1 \\ &= -1 + (3+4!) \times 6! - \sqrt{9} \\ &= -\sqrt{9} + 6! \times (4! + 3) - 1. \end{aligned}$$

$$\begin{aligned} 19439 &= -1 + (\sqrt{9 \times 4})! \times 3 \times 9 \\ &= 9 \times 3 \times (\sqrt{4 \times 9})! - 1 \\ &= -1 + 3!! \times (4 \times 9 - 9) \\ &= (-9+9 \times 4) \times 3!! - 1. \end{aligned}$$

$$\begin{aligned} 19441 &= 1 + (\sqrt{9} + 4!) \times (4-1)!! \\ &= (-1+4+4!) \times (\sqrt{9})!! + 1 \\ &= 1 + (-1+4+4!) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (4! + 4 - 1) + 1. \end{aligned}$$

$$\begin{aligned} 19447 &= -1 - (\sqrt{9})!! + 4 \times (\sqrt{4} + 7!) \\ &= (7! + \sqrt{4}) \times 4 - (\sqrt{9})!! - 1 \\ &= -1 + 4 \times (\sqrt{4} + 7!) - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (7! + \sqrt{4}) \times 4 - 1. \end{aligned}$$

$$\begin{aligned} 19449 &= (1 + \sqrt{9} \times (4 + \sqrt{4})!) \times 9 \\ &= 9 \times ((4 + \sqrt{4})! \times \sqrt{9} + 1) \\ &= (-1+4+4!) \times (\sqrt{9})!! + 9 \\ &= 9 + (\sqrt{9})!! \times (4! + 4 - 1). \end{aligned}$$

$$\begin{aligned} 19493 &= -1 + ((\sqrt{9})!! + \sqrt{4}) \times 9 \times 3 \\ &= 3 \times 9 \times (\sqrt{4} + (\sqrt{9})!!) - 1 \\ &= -1 + (3!! + \sqrt{4}) \times \sqrt{9} \times 9 \\ &= \sqrt{9} \times 9 \times (\sqrt{4} + 3!!) - 1. \end{aligned}$$

$$\begin{aligned} 19494 &= 1 \times (\sqrt{9} + 4!) \times ((\sqrt{9})!! + \sqrt{4}) \\ &= (4! + \sqrt{9}) \times (\sqrt{4} + (\sqrt{9})!!) \times 1 \\ &= ((-1+4)!! + \sqrt{4}) \times \sqrt{9} \times 9 \\ &= \sqrt{9} \times 9 \times (\sqrt{4} + (4-1)!!). \end{aligned}$$

$$\begin{aligned} 19683 &= 1 \times (9-6)^8 \times 3 \\ &= 3^8 \times 6/(\sqrt{9}-1) \\ &= ((1-3+6)/8)^9 \\ &= \sqrt{9^{(8-6)^3+1}}. \end{aligned}$$

$$\begin{aligned} 19684 &= 1 + \sqrt{\sqrt{9^{6+8+4}}} \\ &= (-4!/8 + 6)^9 + 1 \\ &= 1 + (4 \times 6/8)^9 \\ &= \sqrt{\sqrt{9^{8+6+4}}} + 1. \end{aligned}$$

$$\begin{aligned} 19693 &= 1 + 9 + \sqrt{(6! + 9)^3} \\ &= 3^9 + 6 + \sqrt{9} + 1 \\ &= 1 + (-3+6)^9 + 9 \\ &= \sqrt{9^9} + 6 + 3 + 1. \end{aligned}$$

$$\begin{aligned} 19699 &= 16 + \sqrt{\sqrt{9^{9+9}}} \\ &= \sqrt{9^9} + 9 + 6 + 1 \\ &= 1 + 9 + 6 + \sqrt{9^9} \\ &= \sqrt{9^9} + 6 + 9 + 1. \end{aligned}$$

$$\begin{aligned} 20144 &= (((2+0)!) + 1)! - 4) \times 4 \\ &= 4 \times (-4 + (1 + (0! + 2)!!)) \\ &= ((0! + (1+2)!!) - 4) \times 4 \\ &= 4 \times (-4 + ((2+1)!! + 0)!!). \end{aligned}$$

$$\begin{aligned} 20455 &= (\sqrt{02^{4!}} - 5) \times 5 \\ &= 5 \times (-5 + 4^{(2+0)!!}) \\ &= (\sqrt{2^{(0+4)!!}} - 5) \times 5 \\ &= 5 \times (-5 + 4^{(0!+2)!!}). \end{aligned}$$

$$\begin{aligned} 21456 &= (2+1)! \times (-4! + 5 \times 6!) \\ &= (6! \times 5 - 4!) \times (1+2)! \\ &= 12^4 + 5! \times 6 \\ &= (6! \times 5 - 4!) \times (2+1)!. \end{aligned}$$

$$\begin{aligned} 21597 &= -2 - 1 + 5 \times (-(\sqrt{9})!! + 7!) \\ &= (7! - (\sqrt{9})!!) \times 5 - 1 - 2 \\ &= -1 - 2 + 5 \times (7! - (\sqrt{9})!!) \\ &= (-(\sqrt{9})!! + 7!) \times 5 - 2 - 1. \end{aligned}$$

$$\begin{aligned} 21599 &= -2 + 1 + 5 \times (\sqrt{9})! \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (\sqrt{9})! \times 5 + 1 - 2 \\ &= -1 + 2 \times 5 \times \sqrt{9} \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times \sqrt{9} \times 5 \times 2 - 1. \end{aligned}$$

$$\begin{aligned} 23324 &= 2 \times (-2 + 3!^{3!}/4) \\ &= -4 + 3!^{3 \times 2}/2 \\ &= (2 \times 3)^{3!}/2 - 4 \\ &= -4 + (2 \times 3)^{3!}/2. \end{aligned}$$

$$\begin{aligned} 23328 &= (2 \times 3^3)^2 \times 8 \\ &= (8 - 2)^{3+3}/2 \\ &= 2 \times 2 \times 3^{3!} \times 8 \\ &= 8 \times (3^3 \times 2)^2. \end{aligned}$$

$$\begin{aligned} 23334 &= 2 \times (3 + 3!^{3!}/4) \\ &= (4 \times 3 + 3!^{3!})/2. \end{aligned}$$

$$\begin{aligned} 23424 &= (2 \times 3!! + 4!) \times 2^4 \\ &= 4^2 \times (4! + 3!! \times 2) \\ &= (2 \times 2)! \times (3!! + 4^4) \\ &= (4^4 + 3!!) \times (2 + 2)!. \end{aligned}$$

$$\begin{aligned} 23694 &= (-2 + (\sqrt{36})!) \times (9 + 4!) \\ &= (4! + 9) \times ((6 - 3)!! - 2) \\ &= (2 - 3!!) \times (-4 \times 6 - 9) \\ &= (9 + 6 \times 4) \times (3!! - 2). \end{aligned}$$

$$\begin{aligned} 23755 &= -2 \times 3!! + 7! \times 5 - 5 \\ &= -5 + 5 \times 7! - 3!! \times 2 \\ &= -2 \times 3!! - 5 + 5 \times 7! \\ &= 7! \times 5 - 5 - 3!! \times 2. \end{aligned}$$

$$\begin{aligned} 24476 &= 2 \times (-\sqrt{4} + (4! - 7) \times 6!) \\ &= (6! \times (-7 + 4!) - \sqrt{4}) \times 2 \\ &= -2 \times (\sqrt{4} - 4! \times 6! + 7!) \\ &= (-7! + 6! \times 4! - \sqrt{4}) \times 2. \end{aligned}$$

$$\begin{aligned} 24594 &= 2 \times (-4! + (5! - 9)^{\sqrt{4}}) \\ &= (-4! + (9 - 5!)^{\sqrt{4}}) \times 2 \\ &= (\sqrt{2^4!} + \sqrt{4 + 5}) \times (\sqrt{9})! \\ &= (\sqrt{(9 - 5!)^4} - 4!) \times 2. \end{aligned}$$

$$\begin{aligned} 25167 &= 2 + 5 \times ((1 + 6)! - 7) \\ &= (7! - 6 - 1) \times 5 + 2 \\ &= -1 - 2 + 5 \times (-6 + 7!) \\ &= (7! - 6) \times 5 - 2 - 1. \end{aligned}$$

$$\begin{aligned} 25173 &= -2 + 5 \times (1 + 7! - 3!) \\ &= (-3! + 7! + 1) \times 5 - 2 \\ &= -(1 + 2)^3 + 5 \times 7! \\ &= 7! \times 5 - 3^{2+1}. \end{aligned}$$

$$\begin{aligned} 25174 &= -4! + 7! \times 1 \times 5 - 2 \\ &= -2 + 5 \times 1 \times 7! - 4! \\ &= -1 \times 2 - 4! + 5 \times 7! \\ &= 7! \times 5 - 4! - 2 \times 1. \end{aligned}$$

$$\begin{aligned} 25175 &= 25 \times (-1 + 7!/5) \\ &= 5 \times 7! - 1 \times 5^2 \\ &= -1 \times 25 + 5 \times 7! \\ &= (7! - 5) \times 5 \times (2 - 1). \end{aligned}$$

$$\begin{aligned} 25194 &= -2 + 5 \times (1 + (\sqrt{9})!!) - 4 \\ &= -4 + ((\sqrt{9})! + 1)! \times 5 - 2 \\ &= (1 + 2 + 4)! \times 5 - (\sqrt{9})! \\ &= -(\sqrt{9})! + 5 \times (4 + 2 + 1)!. \end{aligned}$$

$$\begin{aligned} 25195 &= ((2 + 5)! - 1^9) \times 5 \\ &= -5 + ((\sqrt{9})! - 1) \times (5 + 2)! \\ &= 1 + (2 + 5)! \times 5 - (\sqrt{9})! \\ &= -(\sqrt{9})! + 5 \times (5 + 2)! + 1. \end{aligned}$$

$$\begin{aligned} 25197 &= 2 - 5 \times (1^9 - 7!) \\ &= 7! \times ((\sqrt{9})! - 1) - 5 + 2 \\ &= -12 + 5 \times 7! + 9 \\ &= -9 + 7! \times 5 + (2 + 1)!. \end{aligned}$$

$$\begin{aligned} 25205 &= ((\sqrt{25} + 2)! + 0!) \times 5 \\ &= 5 \times (0! + (\sqrt{25} + 2)!) \\ &= ((0 \times 2)! + (2 + 5)!) \times 5 \\ &= 5 \times ((5 + 2)! + (2 \times 0)!). \end{aligned}$$

$$\begin{aligned} 25215 &= ((2 + 5)! + 2 + 1) \times 5 \\ &= 5 \times (1 + 2 + (5 + 2)!) \\ &= (1 + 2 + (2 + 5)!) \times 5 \\ &= 5 \times ((5 + 2)! + 2 + 1). \end{aligned}$$

$$\begin{aligned} 25375 &= (2^5 + 3 + 7!) \times 5 \\ &= 5 \times (7! + \sqrt{35^2}) \\ &= ((2 \times 3)! + 5) \times 5 \times 7 \\ &= 7 \times 5 \times (5 + (3 \times 2)!). \end{aligned}$$

$$\begin{aligned} 25758 &= -2 + 5 \times (7! + 5! - 8) \\ &= (-8 + 5! + 7!) \times 5 - 2 \\ &= -2 + 5 \times (5! + 7! - 8) \\ &= (-8 + 7! + 5!) \times 5 - 2. \end{aligned}$$

$$\begin{aligned} 25795 &= (2 + 5! + 7! - \sqrt{9}) \times 5 \\ &= 5 \times (-\sqrt{9} + 7! + 5! + 2) \\ &= -2 + 5 \times (5! + 7!) - \sqrt{9} \\ &= -\sqrt{9} + (7! + 5!) \times 5 - 2. \end{aligned}$$

$$\begin{aligned} 25798 &= -2 + (5! + 7!) \times (-\sqrt{9} + 8) \\ &= (8 - \sqrt{9}) \times (7! + 5!) - 2 \\ &= -2 + (5! + 7!) \times (8 - \sqrt{9}) \\ &= (-\sqrt{9} + 8) \times (7! + 5!) - 2. \end{aligned}$$

$$\begin{aligned} 25944 &= (2 + 5! \times 9) \times 4! - 4! \\ &= 4! + 4 \times 9 \times (5 - 2)!! \\ &= 24 + 4! \times 5! \times 9 \\ &= 9 \times 5! \times 4! + (\sqrt{4^2})!. \end{aligned}$$

$$\begin{aligned} 25968 &= (-2 + 5)! \times ((\sqrt{9})! \times 6! + 8) \\ &= (8 + 6 \times (\sqrt{9})!!) \times (5 - 2)! \\ &= ((2 + 5)! - 6! + 8) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (8 - 6! + (5 + 2)!). \end{aligned}$$

$$\begin{aligned} 25992 &= 2 \times (5! - 9 + \sqrt{9})^2 \\ &= 2 \times (\sqrt{9} - 9 + 5!)^2 \\ &= (2 \times 2)! \times (5! \times 9 + \sqrt{9}) \\ &= (\sqrt{9} + 9 \times 5!) \times (2 + 2)!. \end{aligned}$$

$$\begin{aligned} 25994 &= 2 + (5! \times 9 + \sqrt{9}) \times 4! \\ &= 4! \times (\sqrt{9} + 9 \times 5!) + 2 \\ &= 2 + 4! \times (5! \times 9 + \sqrt{9}) \\ &= (\sqrt{9} + 9 \times 5!) \times 4! + 2. \end{aligned}$$

$$\begin{aligned} 26496 &= (2+6)! - 4!^{9-6} \\ &= 69 \times (4! + 6!/2) \\ &= \sqrt{\sqrt{2^{4!}}} \times 6 \times 69 \\ &= (\sqrt{9})!! \times 6 \times 6 + 4!^2. \end{aligned}$$

$$\begin{aligned} 26892 &= 2 \times (\sqrt{9} + 8!/6) \times 2 \\ &= 2 \times 6 + 8!/\sqrt{9} \\ &= \sqrt{2 \times 2} \times (6 + 8!/\sqrt{9}) \\ &= (\sqrt{9} + 8!/6) \times (2+2). \end{aligned}$$

$$\begin{aligned} 26894 &= 2 + 6 \times (8!/9 + \sqrt{4}) \\ &= 4 \times (\sqrt{9} + 8!/6) + 2 \\ &= 2 + \sqrt{4} \times (6 + 8!/\sqrt{9}) \\ &= (\sqrt{9} + 8!/6) \times 4 + 2. \end{aligned}$$

$$\begin{aligned} 27648 &= 2^7 \times 6^{4!8} \\ &= \sqrt{8^4} \times 6 \times 72 \\ &= 2 \times \sqrt{4!^6} \times (-7+8) \\ &= 8! - (7! + 6^4) \times 2. \end{aligned}$$

$$\begin{aligned} 28896 &= (\sqrt{2^{(\sqrt{8+8})!}} + (\sqrt{9})!!) \times 6 \\ &= 6 \times ((\sqrt{9})!! + 8^{8/2}) \\ &= 2 \times (6! + \sqrt{8^8}) \times \sqrt{9} \\ &= (\sqrt{9})! \times (\sqrt{8^8} + (\sqrt{6^2})!). \end{aligned}$$

$$\begin{aligned} 29374 &= -2 - (\sqrt{9})!! + 3! \times (7! - 4!) \\ &= (-4! + 7!) \times 3! - (\sqrt{9})!! - 2 \\ &= -2 + 3! \times (-4! + 7!) - (\sqrt{9})!! \\ &= (\sqrt{9})! \times (7! - 4!) - 3!! - 2. \end{aligned}$$

$$\begin{aligned} 29376 &= -(-2 + (\sqrt{9})!!) \times 3! + 7! \times 6 \\ &= 6 \times (7! - (3+9)^2) \\ &= -(-2 + 3!)! \times 6 + 7! \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (7! - 6!/(3+2)). \end{aligned}$$

$$\begin{aligned} 30198 &= 3! \times (0! + (1 + (\sqrt{9})!!) - 8) \\ &= (-8 + ((\sqrt{9})! + 1)! + 0!) \times 3! \\ &= (0! + (1 + 3)!)! - 8) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (-8 + (3! + 1)! + 0!). \end{aligned}$$

$$\begin{aligned} 30234 &= 3! \times (0! - 2 + (3+4)!!) \\ &= ((4+3)! - (2 \times 0)!) \times 3! \\ &= -(0! + 2)! + 3! \times (3+4)! \\ &= (4+3)! \times 3! - (2+0)!. \end{aligned}$$

$$\begin{aligned} 30235 &= 3! \times (0! + 2 \times 3)! - 5 \\ &= -5 + 3 \times 2 \times (0! + 3)!! \\ &= (0! + 2 \times 3)! \times 3! - 5 \\ &= -5 + 3! \times (3 \times 2 + 0)!. \end{aligned}$$

$$\begin{aligned} 30237 &= 7! \times 3 \times 2 - 0 - 3 \\ &= -3 + 0 + 2 \times 3 \times 7! \\ &= 0 \times 2 - 3 + 3! \times 7! \\ &= 7! \times 3! - 3 + 2 \times 0. \end{aligned}$$

$$\begin{aligned} 30243 &= 3! \times (0! + 2 + 4)! + 3 \\ &= 3 + 42 \times (0 + 3)!! \\ &= (0! + 2) + 3! \times (3 + 4)! \\ &= (4 + 3)! \times 3! + 2 + 0!. \end{aligned}$$

$$\begin{aligned} 30264 &= 3! \times (((0/2)! + 6)! + 4) \\ &= (4 + (6 + (2 \times 0)!)!) \times 3! \\ &= ((0! + 2 \times 3)! + 4) \times 6 \\ &= 6 \times (4 + (3 \times 2 + 0)!). \end{aligned}$$

$$\begin{aligned} 30267 &= 3^{0!+2} + 6 \times 7! \\ &= 7! \times 6 + (2 + 0!)^3 \\ &= (0! + 2)^3 + 6 \times 7! \\ &= 7! \times 6 + 3^{2+0!}. \end{aligned}$$

$$\begin{aligned} 30273 &= 3! \times ((0! + 2)! + 7!) - 3 \\ &= ((3! + 7!) \times 2 - 0!) \times 3 \\ &= -0! - 2 + 3! \times (3! + 7!) \\ &= 7! \times 3! + 32 + 0!. \end{aligned}$$

$$\begin{aligned} 30276 &= (6 + 7!) \times 2 \times (0 + 3) \\ &= 3 \times (0 + 2) \times (7! + 6) \\ &= 02 \times 3 \times (6 + 7!) \\ &= (7! + 6) \times 3 \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 30279 &= 3 \times (0! + 2 \times (7! + (\sqrt{9})!!)) \\ &= (((\sqrt{9})! + 7!) \times 2) + 0!) \times 3 \\ &= (0! + 2)! \times (3! + 7!) + \sqrt{9} \\ &= \sqrt{9} + (7! + 3!) \times (2 + 0)!. \end{aligned}$$

$$\begin{aligned} 30297 &= 3 \times (0! + 2 \times (9 + 7)!!) \\ &= ((7! + 9) \times 2 + 0!) \times 3 \\ &= 0! + 2 + 3! \times (7! + 9) \\ &= (9 + 7!) \times 3! + 2 + 0!. \end{aligned}$$

$$\begin{aligned} 30355 &= 3! \times (0! + 3)! + 5! - 5 \\ &= 5! - 5 + 3! \times (0! + 3)! \\ &= (0! + 3)! \times 3! - 5 + 5! \\ &= 5! - 5 + 3! \times (3! + 0)!. \end{aligned}$$

$$\begin{aligned} 30366 &= (3! + 0!) \times (3 + 6!) \times 6 \\ &= 6 \times (6! + 3) \times (0! + 3!) \\ &= (0! + 3!) \times (3 + 6!) \times 6 \\ &= 6 \times (6! + 3) \times (3! + 0!). \end{aligned}$$

$$\begin{aligned} 30597 &= 3 \times (-0! + 5!) + (\sqrt{9})! \times 7! \\ &= 7! \times (\sqrt{9})! + (5! - 0!) \times 3 \\ &= -0! + 3!! + (-\sqrt{4} + 7!) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (7! - \sqrt{4}) + 3!! - 0!. \end{aligned}$$

$$\begin{aligned} 30957 &= -3 - 0 + (\sqrt{9})! \times (5! + 7!) \\ &= (7! + 5!) \times (\sqrt{9})! - 03 \\ &= -03 + (5! + 7!) \times (\sqrt{9})! \\ &= -\sqrt{9} + (7! + 5!) \times 3! \times 0!. \end{aligned}$$

$$\begin{aligned} 30960 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 0 \\ &= 0 + 6! + (\sqrt{9})! \times (0! + 3)!! \\ &= (0! + 03)!! \times 6 + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 6 \times (3! \times 0! + 0)!. \end{aligned}$$

$$\begin{aligned} 30961 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 1 \\ &= 1 + 6! + (\sqrt{9})! \times (0! + 3)!! \\ &= 0! + (1 + 3)!! \times 6 + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 6 \times (3! + 1)! + 0!. \end{aligned}$$

$$\begin{aligned} 30963 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 3 \\ &= 3 + 6! + (\sqrt{9})! \times (0! + 3)!! \\ &= (0! + 3)!! \times 3! + 6! + \sqrt{9} \\ &= \sqrt{9} + 6! + 3! \times (3! + 0)!. \end{aligned}$$

$$\begin{aligned} 30966 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 6 \\ &= 6 + 6! + (\sqrt{9})! \times (0! + 3)!! \\ &= (0! + 3)!! \times 6 + 6 + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 6 + 6 \times (3! + 0)!. \end{aligned}$$

$$\begin{aligned} 30967 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 7 \\ &= 7 + 6! + (\sqrt{9})! \times (0! + 3)!! \\ &= 0! + 3! + 6 \times 7! + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 7 + 6 \times (3! + 0)!. \end{aligned}$$

$$\begin{aligned} 30968 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 8 \\ &= 8 + 6! + (\sqrt{9})! \times (0! + 3!)! \\ &= (0! + 3!)! \times 6 + 8 + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 8 + 6 \times (3! + 0!)!. \end{aligned}$$

$$\begin{aligned} 30969 &= 3! \times (0! + (\sqrt{9})!)! + 6! + 9 \\ &= 9 + 6 \times ((\sqrt{9})! + 0!)! + 3!! \\ &= (0! + 3!)! \times 6 + 9 + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 9 + 6 \times (3! + 0!)!. \end{aligned}$$

$$\begin{aligned} 30979 &= 3!! + 0! + (\sqrt{9} + 7!) \times (\sqrt{9})! \\ &= ((\sqrt{9} + 7!) \times (\sqrt{9})! + 0!) + 3!! \\ &= 0! + (3 + 7!) \times (\sqrt{9})! + (\sqrt{9})!! \\ &= (\sqrt{9})!! + (\sqrt{9})! \times (7! + 3) + 0!. \end{aligned}$$

$$\begin{aligned} 30996 &= 3!! + ((0! + (\sqrt{9})!)! + (\sqrt{9})!) \times 6 \\ &= 6! + (\sqrt{9})! \times ((\sqrt{9})! + (0! + 3!)!) \\ &= ((0! + 3!)! + 6) \times (\sqrt{9})! + (\sqrt{9})!! \\ &= (\sqrt{9})!! + (\sqrt{9})! \times (6 + (3! + 0!)!). \end{aligned}$$

$$\begin{aligned} 30997 &= 3!! + 0! + (\sqrt{9})! \times ((\sqrt{9})! + 7!) \\ &= (7! + (\sqrt{9})!) \times (\sqrt{9})! + 0! + 3!! \\ &= 0! + (3! + 7!) \times (\sqrt{9})! + (\sqrt{9})!! \\ &= (\sqrt{9})!! + (\sqrt{9})! \times (7! + 3!) + 0!. \end{aligned}$$

$$\begin{aligned} 31668 &= -(3!! + 1) \times (6 + 6) + 8! \\ &= 8! - (6 + 6) \times (1 + 3!!) \\ &= -(1 + 3!!) \times (6 + 6) + 8! \\ &= 8! - (6 + 6) \times (3!! + 1). \end{aligned}$$

$$\begin{aligned} 31679 &= 3!! - 1 + 6! + 7! \times (\sqrt{9})! \\ &= (\sqrt{9})! \times 7! + 6! - 1 + 3!! \\ &= -1 + 3!! + 6 \times 7! + (\sqrt{9})!! \\ &= (\sqrt{9})! \times (7! + 6!/3) - 1. \end{aligned}$$

$$\begin{aligned} 31944 &= (3! + 1 \times (\sqrt{9})!!) \times 44 \\ &= 4! \times (\sqrt{4} + 9 \times 1)^3 \\ &= 1 \times 3 \times (-\sqrt{4} + 4!)^{\sqrt{9}} \\ &= \sqrt{9} \times (-\sqrt{4} + 4!)^3 \times 1. \end{aligned}$$

$$\begin{aligned} 32395 &= 3!! \times (2 + 3) \times 9 - 5 \\ &= 5 \times 9 \times 3!! - 2 - 3 \\ &= -2 - 3 + 3!! \times 5 \times 9 \\ &= 9 \times 5 \times 3!! - 3 - 2. \end{aligned}$$

$$\begin{aligned} 32748 &= -3! \times (2 + 7!/4) + 8! \\ &= 8! - (4 + 7!/2) \times 3 \\ &= 2 \times (-3! + 4^7) - 8 \\ &= (8 + 7)!/(5 + 3!)! - 2. \end{aligned}$$

$$\begin{aligned} 32768 &= (3 - 2 + 7)^6/8 \\ &= ((8 - 6)^{7-2})^3 \\ &= 2^{3!-6+7+8} \\ &= (8 \times (7 - 6))^{3+2}. \end{aligned}$$

$$\begin{aligned} 32774 &= (3 + 2^{7+7}) \times \sqrt{4} \\ &= 4^{\sqrt{7 \times 7}} \times 2 + 3! \\ &= 2 \times (3 + \sqrt{4^{7+7}}) \\ &= 7 \times (7! + (4 - 3!!)/2). \end{aligned}$$

$$\begin{aligned} 32784 &= ((3! - 2)^7 + 8) \times \sqrt{4} \\ &= 4! + 8! - 7!/2 \times 3 \\ &= \sqrt{-2 + 3!} \times (4^7 + 8) \\ &= 8!/7! \times (4^{3!} + 2). \end{aligned}$$

$$\begin{aligned} 33408 &= 3! \times (3!! - 4!) \times (0 + 8) \\ &= 8 \times (0 - 4! + 3!!) \times 3! \\ &= (-0! + 3)! + 3!! \times 48 \\ &= 8 \times (-4! + 3!!) \times 3! \times 0!. \end{aligned}$$

$$\begin{aligned} 33488 &= 3!! + (3! + \sqrt{4}) \times \sqrt{8^8} \\ &= 8 \times 8^4 + (3 + 3)!. \end{aligned}$$

$$33489 = (3 + 3!!/4)^{8-(\sqrt{9})!}$$

$$= (-9 + 8 \times 4!)^{3!^{1/3}}.$$

$$\begin{aligned} 33558 &= (3!! - 3!) \times (55 - 8) \\ &= (-8 + 55) \times (-3! + 3!!). \end{aligned}$$

$$\begin{aligned} 33648 &= -3!! + 3! \times (6! - 4) \times 8 \\ &= 8 \times (-4 + 6!) \times 3! - 3!! \\ &= -3!! + (3!! - 4) \times 6 \times 8 \\ &= 8 \times 6 \times (-4 + 3!!) - 3!!. \end{aligned}$$

$$\begin{aligned} 33696 &= (3!^3 + 6!) \times (\sqrt{9})! \times 6 \\ &= (6^{\sqrt{9}} + 6!) \times 3! \times 3! \\ &= 3!^{3!} - (6! + 6!) \times 9 \\ &= -9 \times (6! + 6!) + 3!^{3!}. \end{aligned}$$

$$\begin{aligned} 33768 &= 3!^3 \times \sqrt{7^6} - 8! \\ &= -8! + (6 \times 7)^{\sqrt{3 \times 3}} \\ &= -3!! + (-3^6 + 7!) \times 8 \\ &= -8! + (7 \times (6 - 3))!. \end{aligned}$$

$$\begin{aligned} 33798 &= -3!! + 3! \times (-7 + (\sqrt{9})!! \times 8) \\ &= (8 \times (\sqrt{9})!! - 7) \times 3! - 3!! \\ &= -3!! - 3! \times (7 - 8 \times (\sqrt{9})!!) \\ &= ((\sqrt{9})!! \times 8 - 7) \times 3! - 3!!.. \end{aligned}$$

$$\begin{aligned} 33835 &= 3!! \times 3! \times 8 - 3!! - 5 \\ &= -5 + 3!! \times 8 \times 3! - 3!! \\ &= -3 \times 3 \times 3!! - 5 + 8! \\ &= 8! - 5 - 3 \times 3 \times 3!!.. \end{aligned}$$

$$\begin{aligned} 33837 &= -3 - 3!! + 8! \times 3!/7 \\ &= (7! - 3!!) \times 8 - 3!! - 3 \\ &= -3!! - 3!! - 3 - 7! + 8! \\ &= 8! - 7! - 3 - 3!! - 3!!.. \end{aligned}$$

$$\begin{aligned} 33864 &= -3!! + 3! \times (8 \times 6! + 4) \\ &= (4 + 6! \times 8) \times 3! - 3!! \\ &= -3!! + 3! \times (4 + 6! \times 8) \\ &= (8 \times 6! + 4) \times 3! - 3!!.. \end{aligned}$$

$$\begin{aligned} 33984 &= 3! \times ((3!! - 9) \times 8 - 4!) \\ &= -48 \times (9 + 3 - 3!!) \\ &= (3 + 3!!) \times 48 - (\sqrt{9})!! \\ &= (9! - 8!)/4 - 3!^{3!}. \end{aligned}$$

$$\begin{aligned} 34266 &= -3! + 4! \times 2 \times (6! - 6) \\ &= (6! - 6) \times 2 \times 4! - 3! \\ &= 2 \times (-3 + 4! \times (-6 + 6!!)) \\ &= ((-6 + 6!) \times 4! - 3) \times 2!. \end{aligned}$$

$$\begin{aligned} 34295 &= (3 + 4^2)^{\sqrt{9}} \times 5 \\ &= 5 \times (\sqrt{9} + 2^4)^3 \\ &= (2 + 3) \times (4! - 5)^{\sqrt{9}} \\ &= 95 \times (\sqrt{4} + 3!!)/2.. \end{aligned}$$

$$\begin{aligned} 34368 &= (3!! - 4) \times \sqrt{36} \times 8 \\ &= 8 \times ((6 - 3)!! - 4) \times 3! \\ &= ((3 + 3)!! - 4) \times 6 \times 8 \\ &= 8 \times 6 \times (-4 + (3 + 3)!!).. \end{aligned}$$

$$\begin{aligned} 34386 &= (3 - (4 - 3!!) \times 8) \times 6 \\ &= 6 \times (8 \times (3!! - 4) + 3) \\ &= 3! \times (3 + (-4 + 6!) \times 8) \\ &= (8 \times (6! - 4) + 3) \times 3!. \end{aligned}$$

$$\begin{aligned} 34398 &= 3! \times (-4! - 3 + (\sqrt{9})!! \times 8) \\ &= (8 \times (\sqrt{9})!! - 3 - 4!) \times 3! \\ &= -3! \times (3 + 4! - 8 \times (\sqrt{9})!!) \\ &= ((\sqrt{9})!! \times 8 - 4! - 3) \times 3!. \end{aligned}$$

$$\begin{aligned} 34464 &= 3 \times 4 \times 4 \times (6! - \sqrt{4}) \\ &= 4 \times (6! - \sqrt{4}) \times 4 \times 3 \\ &= 3!! \times 4! + 4! \times (-4 + 6!) \\ &= (6! - 4) \times 4! + 4! \times 3!. \end{aligned}$$

$$\begin{aligned} 34488 &= -3^{4+\sqrt{4}} \times 8 + 8! \\ &= 8! - (-8 + 4! + \sqrt{4})^3. \end{aligned}$$

$$\begin{aligned} 34497 &= 3!! \times 4! \times \sqrt{4} - 9 \times 7 \\ &= -7 \times 9 + 4! \times \sqrt{4} \times 3!! \\ &= 3!! \times (4! + 4!) - 7 \times 9 \\ &= -9 \times 7 + (4! + 4!) \times 3!!. \end{aligned}$$

$$\begin{aligned} 34542 &= (3!! \times 4! - 5 - 4) \times 2 \\ &= 2 \times (-4 - 5 + 4! \times 3!!) \\ &= 2 \times (3!! \times 4! - 4 - 5) \\ &= (-5 - 4 + 4! \times 3!!) \times 2. \end{aligned}$$

$$\begin{aligned} 34545 &= 3 \times (4 \times 5! \times 4! - 5) \\ &= (-5 + 4 \times 5! \times 4!) \times 3 \\ &= 3 \times (4! \times 4 \times 5! - 5) \\ &= (-5 + 5! \times 4 \times 4!) \times 3. \end{aligned}$$

$$\begin{aligned} 34548 &= 3! \times (-\sqrt{4} + 5! \times 48) \\ &= (8! / (\sqrt{4} + 5) - \sqrt{4}) \times 3! \\ &= 3! \times (-\sqrt{4} + (\sqrt{4} + 5)!! \times 8) \\ &= (8 \times (\sqrt{5 + 4})!! - \sqrt{4}) \times 3!. \end{aligned}$$

$$\begin{aligned} 34554 &= (-3 + (4! + 5!) \times 5!) \times \sqrt{4} \\ &= \sqrt{4} \times (5! \times (5! + 4!) - 3) \\ &= -3! + \sqrt{4} \times (4! + 5!) \times 5! \\ &= 5! \times (5! + 4!) \times \sqrt{4} - 3!. \end{aligned}$$

$$\begin{aligned} 34555 &= 3!! \times (4! + 5!/5) - 5 \\ &= -5 + (5!/5 + 4!) \times 3!!. \end{aligned}$$

$$\begin{aligned} 34557 &= -3 + 4! \times 5! \times (5 + 7) \\ &= (7 + 5) \times 5! \times 4! - 3. \end{aligned}$$

$$\begin{aligned} 34572 &= 3! \times ((\sqrt{4 + 5})!! + 7! + 2) \\ &= (2 + 7! + (\sqrt{5 + 4})!!) \times 3! \\ &= 2 \times 3!! \times 4! + 5 + 7 \\ &= 7 + 5 + 4! \times 3!! \times 2. \end{aligned}$$

$$\begin{aligned} 34574 &= (3! \times 4! \times 5! + 7) \times \sqrt{4} \\ &= \sqrt{4} \times (7 + 5! \times 4! \times 3!) \\ &= -3!! + (\sqrt{4} + (\sqrt{4} + 5)!) \times 7 \\ &= 7 \times ((5 + \sqrt{4})! + \sqrt{4}) - 3!. \end{aligned}$$

$$\begin{aligned} 34584 &= 3!^{\sqrt{4}} \times 5! \times 8 + 4! \\ &= (48 \times 5! + 4) \times 3! \\ &= 3 \times (4! \times 4 \times 5! + 8) \\ &= (8 + 5! \times 4 \times 4!) \times 3. \end{aligned}$$

$$\begin{aligned} 34596 &= (3 + 4! \times 5!) \times ((\sqrt{9})! + 6) \\ &= (6 + (\sqrt{9})!) \times (5! \times 4! + 3) \\ &= (3 + 4! \times 5!) \times (6 + (\sqrt{9})!) \\ &= ((\sqrt{9})! + 6) \times (5! \times 4! + 3). \end{aligned}$$

$$\begin{aligned} 34608 &= 3 \times \sqrt{4} \times (6! + 0!) \times 8 \\ &= 8 \times (0! + 6!) \times \sqrt{4} \times 3 \\ &= (0! + 3!!) \times 4! \times (-6 + 8) \\ &= (8 - 6) \times 4! \times (3!! + 0!). \end{aligned}$$

$$\begin{aligned} 34614 &= (3 + 4! \times (6! + 1)) \times \sqrt{4} \\ &= \sqrt{4} \times ((1 + 6!) \times 4! + 3) \\ &= (1 + 3!!) \times (4! + 4!) + 6 \\ &= 6 + (4! + 4!) \times (3!! + 1). \end{aligned}$$

$$\begin{aligned} 34644 &= (-3! + 4! \times (6! + \sqrt{4})) \times \sqrt{4} \\ &= \sqrt{4} \times (4! \times (6! + \sqrt{4}) - 3!) \\ &= -3! + (4!/\sqrt{4})!/\sqrt{4!^6} \\ &= -6 + (4!/\sqrt{4})!/(4!)^3. \end{aligned}$$

$$\begin{aligned} 34668 &= (8 \times 6! - 6 + 4!) \times 3! \\ &= 3! \times (4! - 6 + 6! \times 8). \end{aligned}$$

$$\begin{aligned} 34688 &= (3! \times (4 + 6!) - 8) \times 8 \\ &= 8 \times (-8 + (6! + 4) \times 3!). \end{aligned}$$

$$\begin{aligned} 34692 &= (-3! + 4! \times (6! + \sqrt{9})) \times 2 \\ &= 2 \times ((\sqrt{9} + 6!) \times 4! - 3!) \\ &= 2 \times (-3! + 4! \times (6! + \sqrt{9})) \\ &= ((\sqrt{9} + 6!) \times 4! - 3!) \times 2. \end{aligned}$$

$$\begin{aligned} 34773 &= (-3 \times 4! + 7!) \times 7 - 3 \\ &= -3 + 7 \times (7! - 4! \times 3) \\ &= -3 + (-3 \times 4! + 7!) \times 7 \\ &= 7 \times (7! - 4! \times 3) - 3. \end{aligned}$$

$$\begin{aligned} 34777 &= -3!! + (4! + 7 + 7!) \times 7 \\ &= 7 \times (7! + 7 + 4!) - 3!! \end{aligned}$$

$$\begin{aligned} 34779 &= (-3 \times 4! + 7!) \times 7 + \sqrt{9} \\ &= \sqrt{9} + 7 \times (7! - 4! \times 3). \end{aligned}$$

$$\begin{aligned} 34836 &= 3! \times (-\sqrt{4} + 8 \times (3! + 6!)) \\ &= ((6 + 3!!) \times 8 - \sqrt{4}) \times 3! \\ &= (3 + 4 + 6!) \times 8 \times (\sqrt{9})! \\ &= (\sqrt{9})! \times 8 \times (6! + 4 + 3). \end{aligned}$$

$$\begin{aligned} 34986 &= 3!^{\sqrt{49}}/8 - 6 \\ &= (\sqrt{6^8} \times 9 - \sqrt{4}) \times 3 \\ &= (3 + 4!) \times \sqrt{6^8} - (\sqrt{9})! \\ &= 98 \times (6!/\sqrt{4} - 3). \end{aligned}$$

$$\begin{aligned} 34989 &= 3!^{\sqrt{49}}/8 - \sqrt{9} \\ &= \sqrt{(\sqrt{9})!^8} \times (\sqrt{9} + 4!) - 3 \\ &= -3 + 48 \times 9^{\sqrt{9}} \\ &= -\sqrt{9} + \sqrt{(\sqrt{9})!^8} \times (4! + 3). \end{aligned}$$

$$\begin{aligned} 34991 &= 3!^4 \times 9 \times \sqrt{9} - 1 \\ &= -1 + (9 + 9)^4/3 \\ &= -1 + 3!^4 \times 9 \times \sqrt{9} \\ &= (9 + 9)^4/3 - 1. \end{aligned}$$

$$\begin{aligned} 34992 &= 3 \times (4 \times 9 \times \sqrt{9})^2 \\ &= 2 \times (9 + 9)^4/3 \\ &= (2 \times 3)^4 \times 9 \times \sqrt{9} \\ &= 9 \times 9 \times 432. \end{aligned}$$

$$\begin{aligned} 34994 &= 3!^4 \times 9 \times \sqrt{9} + \sqrt{4} \\ &= \sqrt{4} + (9 + 9)^4 / 3 \\ &= ((3! - 4!)^4 + (\sqrt{9})!) / \sqrt{9} \\ &= ((\sqrt{9})! + (9 \times \sqrt{4})^4) / 3. \end{aligned}$$

$$\begin{aligned} 34998 &= 3 \times (\sqrt{4} + 9 \times \sqrt{(\sqrt{9})!^8}) \\ &= (8 + ((\sqrt{9})!^{(\sqrt{9})!})) / 4 \times 3 \\ &= 3! + 48 \times 9^{\sqrt{9}} \\ &= (\sqrt{9})! + \sqrt{(\sqrt{9})!^8} \times (4! + 3). \end{aligned}$$

$$\begin{aligned} 35077 &= (-3! \times 5 + 0! + 7!) \times 7 \\ &= 7 \times (7! + 0! - 5 \times 3!) \\ &= (-(0! + 3)! - 5 + 7!) \times 7 \\ &= 7 \times (7! - 5 - (3 + 0!)!). \end{aligned}$$

$$\begin{aligned} 35268 &= 3! \times (5! - 2 + 6! \times 8) \\ &= (8 \times 6! - 2 + 5!) \times 3! \\ &= (-2 - 3!! - 5!) \times 6 + 8! \\ &= 8! - (5 + \sqrt{4})! - 32. \end{aligned}$$

$$\begin{aligned} 35274 &= (3 + 5)! - 2 - 7! - 4 \\ &= -4 - 7! - 2 + (5 + 3)! \\ &= (2^3)! - (\sqrt{4 + 5})! - 7! \\ &= -7! - (\sqrt{5 + 4})! + (3! + 2)!. \end{aligned}$$

$$\begin{aligned} 35275 &= (-3 + 5 \times 2) \times 7! - 5 \\ &= -5 + 7 \times (2 \times 5 - 3)! \\ &= (2 + 3!!/5!)! - 5 - 7! \\ &= -7! - 5 + (5 + 3!/2)!. \end{aligned}$$

$$\begin{aligned} 35276 &= (3 + 5)! + 2 - 7! - 6 \\ &= -6 - 7! + 2 + (5 + 3)! \\ &= 2 + (3 + 5)! - 6 - 7! \\ &= -7! - 6 + (5 + 3)! + 2. \end{aligned}$$

$$\begin{aligned} 35277 &= 3! + 5 + (-2 + 7!) \times 7 \\ &= 7 \times (7! - 2) + 5 + 3! \\ &= -2^3 + 5 + 7 \times 7! \\ &= 7 \times (7! - 5) + 32. \end{aligned}$$

$$\begin{aligned} 35278 &= 3! + (5 + 2) \times 7! - 8 \\ &= 8! - 7! - \sqrt{25} + 3 \\ &= -2 + 3!! \times (57 - 8) \\ &= -8! + 7! \times 5 \times 3 - 2. \end{aligned}$$

$$\begin{aligned} 35279 &= (3 + 5)! + 2 - 7! - \sqrt{9} \\ &= (\sqrt{9})!! \times 7^2 + 5 - 3! \\ &= 2 + (3 + 5)! - 7! - \sqrt{9} \\ &= -\sqrt{9} - 7! + (5 + 3)! + 2. \end{aligned}$$

$$\begin{aligned} 35280 &= -(\sqrt{-3 + 52})! + 8! + 0 \\ &= 0 + 8! - (2 \times 5 - 3)! \\ &= -(0! - 2 + 3 + 5)! + 8! \\ &= 8! - (5 + 3 - 2 + 0!)!. \end{aligned}$$

$$\begin{aligned} 35281 &= -(\sqrt{-3 + 52})! + 8! + 1 \\ &= 1 + 8! - (2 \times 5 - 3)! \\ &= 1 - (2 \times 3! - 5)! + 8! \\ &= 8! - (-5 + 3! \times 2)! + 1. \end{aligned}$$

$$\begin{aligned} 35282 &= -(\sqrt{-3 + 52})! + 8! + 2 \\ &= 2 + 8! - (2 \times 5 - 3)! \\ &= 2 - (2 \times 3! - 5)! + 8! \\ &= 8! - (-5 + 3! \times 2)! + 2. \end{aligned}$$

$$\begin{aligned} 35284 &= -(\sqrt{-3 + 52})! + 8! + 4 \\ &= 4 + 8! - (2 \times 5 - 3)! \\ &= -2 + 3! - (\sqrt{4 + 5})! + 8! \\ &= 8! - (5 + \sqrt{4})! + 3! - 2. \end{aligned}$$

$$\begin{aligned} 35477 &= -3! + (5 + 4! + 7!) \times 7 \\ &= 7 \times (7! + 4! + 5) - 3! \\ &= -3! + (4! + 5 + 7!) \times 7 \\ &= 7 \times (7! + 5 + 4!) - 3!. \end{aligned}$$

$$\begin{aligned} 35488 &= (-3!! + 5! - 4) \times 8 + 8! \\ &= 8! + 8 \times (-4 + 5! - 3!!) \\ &= (-3!! - 4 + 5!) \times 8 + 8! \\ &= 8! + 8 \times (5! - 4 - 3!!). \end{aligned}$$

$$\begin{aligned} 35707 &= (\sqrt{3!! \times 5} + 7! + 0!) \times 7 \\ &= 7 \times (0! + 7! + \sqrt{5 \times 3!!}) \\ &= (0! + \sqrt{3!! \times 5} + 7!) \times 7 \\ &= 7 \times (7! + \sqrt{5 \times 3!!} + 0!). \end{aligned}$$

$$\begin{aligned} 35777 &= (\sqrt{3! - 5 + 7!} + 7!) \times 7 \\ &= 7 \times (7! + \sqrt{7! - 5 + 3!}). \end{aligned}$$

$$\begin{aligned} 35875 &= 3!! - 5! + 8! - 7! - 5 \\ &= -5 - 7! + 8! - 5! + 3!! \\ &= -35 \times (5! + 7) + 8! \\ &= 8! - 7! - 5 - 5! + 3!!. \end{aligned}$$

$$\begin{aligned} 35994 &= -3! + 5 \times (\sqrt{9})!! \times ((\sqrt{9})! + 4) \\ &= (4 + (\sqrt{9})!) \times (\sqrt{9})!! \times 5 - 3! \\ &= (3! + 4) \times 5 \times (\sqrt{9})!! - (\sqrt{9})! \\ &= ((\sqrt{9})!! + (\sqrt{9})!!) \times \sqrt{5^4} - 3!. \end{aligned}$$

$$\begin{aligned} 35995 &= 3!! \times (59 - 9) - 5 \\ &= -5 + (\sqrt{9})!! \times (-\sqrt{9} + 53) \\ &= (3 + 5)! - 5 - (\sqrt{9})! \times (\sqrt{9})!! \\ &= -(\sqrt{9})!! \times (\sqrt{9})! - 5 + (5 + 3)!. \end{aligned}$$

$$\begin{aligned} 35997 &= -3 + 5 \times (\sqrt{9})!! \times (\sqrt{9} + 7) \\ &= (7 + \sqrt{9}) \times (\sqrt{9})!! \times 5 - 3 \\ &= (3 + 5)! - 7! - \sqrt{9} + (\sqrt{9})!! \\ &= (\sqrt{9})!! - \sqrt{9} - 7! + (5 + 3)!. \end{aligned}$$

$$\begin{aligned} 35998 &= 3 - 5 - (\sqrt{9})! \times (\sqrt{9})!! + 8! \\ &= 8! - (\sqrt{9})! \times (\sqrt{9})!! - 5 + 3 \\ &= 3 - 5 + 8! - (\sqrt{9})! \times (\sqrt{9})!! \\ &= -(\sqrt{9})!! \times (\sqrt{9})! + 8! - 5 + 3. \end{aligned}$$

$$\begin{aligned} 36288 &= (3 + 6)! / (2 + \sqrt{8 \times 8}) \\ &= 8! - 8^2 \times 63 \\ &= -2 \times (3!! + \sqrt{6^8}) + 8! \\ &= 8! - 8! / (6 + 3! - 2). \end{aligned}$$

$$\begin{aligned} 36477 &= (3 + (4! + 6!) \times 7) \times 7 \\ &= 7 \times (7 \times (6! + 4!) + 3) \\ &= (3 + (6! + 4!)) \times 7 \times 7 \\ &= 7 \times (7 \times (4! + 6!) + 3). \end{aligned}$$

$$\begin{aligned} 36678 &= 3!! - 6 \times (6! + 7) + 8! \\ &= 8! - (7 + 6!) \times 6 + 3!!.. \end{aligned}$$

$$\begin{aligned} 36748 &= -3!! - (6! - 7) \times 4 + 8! \\ &= 8! - 4 \times (-7 + 6!) - 3!! \\ &= -3!! - 4 \times (6! - 7) + 8! \\ &= 8! + (7 - 6!) \times 4 - 3!!.. \end{aligned}$$

$$\begin{aligned} 36758 &= 3 - (6! - 7) \times 5 + 8! \\ &= 8! - 5 \times (-7 + 6!) + 3 \\ &= 3 - 5 \times (6! - 7) + 8! \\ &= 8! + (7 - 6!) \times 5 + 3. \end{aligned}$$

$$\begin{aligned} 36864 &= 36 \times \sqrt{8^6 \times 4} \\ &= (4 \times 6 \times 8)^{6/3} \\ &= 3! \times (4! \times 6 - 6!) + 8! \\ &= 8! - (6 + 6)^4 / 3!. \end{aligned}$$

$$\begin{aligned} 37434 &= -3! + 7! \times 4 + 3!! \times 4! \\ &= 4! \times 3!! + 4 \times 7! - 3! \\ &= -3! + 3!! \times (4! + 4 \times 7) \\ &= (7 \times 4 + 4!) \times 3!! - 3!. \end{aligned}$$

$$\begin{aligned} 37438 &= -\sqrt{-3+7} - 4 \times 3!! + 8! \\ &= 8! - 3!! \times 4 - \sqrt{7-3} \\ &= 3 \times 3!! - \sqrt{4} - 7! + 8! \\ &= 8! - 7! - \sqrt{4} + 3 \times 3!!. \end{aligned}$$

$$\begin{aligned} 37444 &= 3!! \times (7 \times 4 + 4!) + 4 \\ &= 4 + (4! + 4 \times 7) \times 3!! \\ &= 3!! \times 4! + 4 + 4 \times 7! \\ &= 7! \times 4 + 4 + 4! \times 3!!.. \end{aligned}$$

$$\begin{aligned} 37446 &= 3!! \times (7 \times 4 + 4!) + 6 \\ &= 6 + (4! + 4 \times 7) \times 3!! \\ &= (3!!/4)^{\sqrt{4}} + 6 + 7! \\ &= 7! + (6!/4)^{\sqrt{4}} + 3!. \end{aligned}$$

$$\begin{aligned} 37464 &= ((3 + 7!) \times \sqrt{4} - 6!) \times 4 \\ &= 4! + 6! \times 4 \times (7 + 3!) \\ &= 3!! \times 4! + 4 \times (6 + 7!) \\ &= (7! + 6) \times 4 + 4! \times 3!!.. \end{aligned}$$

$$\begin{aligned} 37468 &= (3!! - 7) \times (\sqrt{4} - 6) + 8! \\ &= 8! + (6 - \sqrt{4}) \times (7 - 3!!) \\ &= (-3! + \sqrt{4}) \times (6! - 7) + 8! \\ &= 8! + (7 - 6!) \times 4!/3!. \end{aligned}$$

$$\begin{aligned} 37789 &= (3!! - 7) \times (7 \times 8 - \sqrt{9}) \\ &= (\sqrt{9} - 8 \times 7) \times (7 - 3!!) \\ &= (3!! - 7) \times (7 \times 8 - \sqrt{9}) \\ &= (-\sqrt{9} + 8 \times 7) \times (-7 + 3!!).. \end{aligned}$$

$$\begin{aligned} 37805 &= -3 + 7! + 8^{05} \\ &= 5 \times (0! + (8! + 7!)/3!) \\ &= 0 \times 3 + 5^7 - 8! \\ &= -8 \times 7! + 5^{3!+0!}. \end{aligned}$$

$$\begin{aligned} 37895 &= (3!! - 5) \times (7 \times 8 - \sqrt{9}) \\ &= (-\sqrt{9} + 8 \times 7) \times (-5 + 3!!) \\ &= (-3 + 7 \times 8) \times ((\sqrt{9})!! - 5) \\ &= (-5 + (\sqrt{9})!!) \times (8 \times 7 - 3). \end{aligned}$$

$$\begin{aligned} 38397 &= -3 - 8!/3 + 9!/7 \\ &= (7! - (\sqrt{9})!!/3) \times 8 - 3 \\ &= (-3!!/3 + 7!) \times 8 - \sqrt{9} \\ &= -\sqrt{9} + 8 \times (7! - 3!!/3). \end{aligned}$$

$$\begin{aligned} 38664 &= (3! + 8 \times 6) \times (6! - 4) \\ &= (-4 + 6!) \times (6 \times 8 + 3!) \\ &= -3! \times 46 \times 6 + 8! \\ &= (8 \times 6 + 6) \times (-4 + 3!!). \end{aligned}$$

$$\begin{aligned} 38736 &= -(3 + 8)!/7! + 3!^6 \\ &= 6! + 3!^7 - 8! \times 3! \\ &= (-33 \times 6 + 7!) \times 8 \\ &= 8 \times (7! - 6 \times 33). \end{aligned}$$

$$\begin{aligned} 38753 &= -3!! + 8! - 7 - 5! - 3!! \\ &= -3!! - 5! - 7 + 8! - 3!! \\ &= -3!! - 3!! - 5! - 7 + 8! \\ &= 8! - 7 - 5! - 3!! - 3!!.. \end{aligned}$$

$$\begin{aligned} 38755 &= -3!! + 8! - 7 \times 5! - 5 \\ &= -5 - 5! \times 7 + 8! - 3!! \\ &= -3!! - 5! - 5! \times 7 + 8! \\ &= 8! - 7 \times 5! - 5 - 3!!.. \end{aligned}$$

$$\begin{aligned} 38799 &= -3^8 + 7! + 9!/9 \\ &= -9 + 9 \times (7! - 8 - 3!!) \\ &= (-3!! + 7! - 8) \times 9 - 9 \\ &= -9 + 9 \times (-8 + 7! - 3!!).. \end{aligned}$$

$$\begin{aligned} 38832 &= -2 \times 3!! + 8! - 8 \times 3! \\ &= -3! \times 8 + 8! - 3!! \times 2 \\ &= -2 \times (3!! + 3 \times 8) + 8! \\ &= 8! - (8 \times 3 + 3!!) \times 2. \end{aligned}$$

$$\begin{aligned} 38864 &= -3!! + 8! + 8 - 6! - 4! \\ &= -4! - 6! + 8 + 8! - 3!! \\ &= -3!! - 4! - 6! + 8 + 8! \\ &= 8! + (8 + 6!) \times (4 - 3!). \end{aligned}$$

$$\begin{aligned} 38866 &= -3!! + 8! - 8 - 6! - 6 \\ &= -6! - 6! - 8 + 8! - 3! \\ &= -3!! - 6! - 6 - 8 + 8! \\ &= 8! - 8 - 6 - 6! - 3!!.. \end{aligned}$$

$$\begin{aligned} 38869 &= -3!! + 8! - 8 - 6! - \sqrt{9} \\ &= -(\sqrt{9})!! - 6! - 8 + 8! - 3 \\ &= -3!! - 6! - 8 + 8! - \sqrt{9} \\ &= -(\sqrt{9})!! + 8! - 8 - 6! - 3. \end{aligned}$$

$$\begin{aligned} 38872 &= -3!! - 8 + 8! - (\sqrt{7+2})!! \\ &= -(\sqrt{2+7})!! - 8 + 8! - 3!! \\ &= -2 \times 3!! + 7! \times 8 - 8 \\ &= -8 + 8 \times 7! - 3!! \times 2. \end{aligned}$$

$$\begin{aligned} 38873 &= -3!! + (\sqrt{8 \times 8})! - 7 - 3!! \\ &= -3!! - 7 + (\sqrt{8 \times 8})! - 3!! \\ &= -3!! - 3!! - 7 + (\sqrt{8 \times 8})! \\ &= (\sqrt{8 \times 8})! - 7 - 3!! - 3!!.. \end{aligned}$$

$$\begin{aligned} 38879 &= -3!! - 8 + 8! + 7 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 7 - 8 + 8! - 3!! \\ &= -3!! + 7 - 8 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - 8 + 7 - 3!!.. \end{aligned}$$

$$\begin{aligned} 38880 &= -3!! \times \sqrt{\sqrt{8+8}} + 8! \times 0! \\ &= 08! - \sqrt{\sqrt{8+8} \times 3!!} \\ &= -03!! \times \sqrt{\sqrt{8+8} + 8!} \\ &= 8! - \sqrt{\sqrt{8+8} \times 3!! \times 0!}. \end{aligned}$$

$$\begin{aligned} 38881 &= -3!! \times \sqrt{\sqrt{8+8} + 8!} + 1 \\ &= 1 + 8! - \sqrt{\sqrt{8+8} \times 3!!} \\ &= 1 - 3!! \times \sqrt{\sqrt{8+8} + 8!} \\ &= 8! - \sqrt{\sqrt{8+8} \times 3!!} + 1. \end{aligned}$$

$$\begin{aligned} 38882 &= -3!! \times \sqrt{\sqrt{8+8} + 8!} + 2 \\ &= 2 + 8! - \sqrt{\sqrt{8+8} \times 3!!} \\ &= -2 \times (3!! - 8/8) + 8! \\ &= 8! - (-8/8 + 3!!) \times 2. \end{aligned}$$

$$\begin{aligned} 38883 &= -3!! \times \sqrt{\sqrt{8+8} + 8!} + 3 \\ &= 3 + 8! - \sqrt{\sqrt{8+8} \times 3!!} \\ &= 3 - 3!! \times \sqrt{\sqrt{8+8} + 8!} \\ &= 8! - \sqrt{\sqrt{8+8} \times 3!!} + 3. \end{aligned}$$

$$\begin{aligned} 38884 &= -3!! \times \sqrt{\sqrt{8+8} + 8!} + 4 \\ &= 4 + 8! - \sqrt{\sqrt{8+8} \times 3!!} \\ &= -3!! \times \sqrt{4} + \sqrt{8+8} + 8! \\ &= \sqrt{8+8} + 8! - \sqrt{4} \times 3!. \end{aligned}$$

$$\begin{aligned} 38886 &= -3!! \times \sqrt{\sqrt{8+8} + 8!} + 6 \\ &= 6 + 8! - \sqrt{\sqrt{8+8} \times 3!!} \\ &= (3 - 6!) \times \sqrt{\sqrt{8+8} + 8!} \\ &= 8! - \sqrt{\sqrt{8+8} \times (6! - 3)}. \end{aligned}$$

$$\begin{aligned} 38888 &= -3!! \times \sqrt{\sqrt{8+8} + 8!} + 8 \\ &= 8 + 8! - \sqrt{\sqrt{8+8} \times 3!!}. \end{aligned}$$

$$\begin{aligned} 38889 &= (-3!! + (8 + 8!)/8) \times 9 \\ &= 9 \times ((8 + 8!)/8 - 3!!). \end{aligned}$$

$$\begin{aligned} 38894 &= 3! + 8 + 8! - (\sqrt{9})!! \times \sqrt{4} \\ &= -\sqrt{4} \times (\sqrt{9})!! + 8 + 8! + 3! \\ &= -3!! \times \sqrt{4} + 8 + 8! + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 8 + 8! - \sqrt{4} \times 3!!. \end{aligned}$$

$$\begin{aligned} 38904 &= -3!! + 8! - (\sqrt{9})!! - 0 + 4! \\ &= 4! + 0 - (\sqrt{9})!! + 8! - 3!! \\ &= -03!! + 4! + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 4! - 3!! \times 0!. \end{aligned}$$

$$\begin{aligned} 38928 &= 3! \times (8 + 9 \times (-2 + 8)!) \\ &= 8! - 29 \times 8 \times 3! \\ &= -2 \times 3!! + 8! + 8 \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times 8 + 8! - 3!! \times 2. \end{aligned}$$

$$\begin{aligned} 38944 &= -3!! + 8! - (\sqrt{9})!! + \sqrt{\sqrt{\sqrt{4^{4!}}}} \\ &= \sqrt{\sqrt{\sqrt{4^{4!}}}} - (\sqrt{9})!! + 8! - 3!! \\ &= (3! + 3! \times (4!/8)!!) \times 9 \\ &= (\sqrt{9^8} - 4! \times 3) \times 3!. \end{aligned}$$

$$\begin{aligned} 38979 &= (3 + 8 - (\sqrt{9})!! + 7!) \times 9 \\ &= 9 \times (7! - ((\sqrt{9})!! - 8 - 3)) \\ &= (3 + 7! + 8 - (\sqrt{9})!!) \times 9 \\ &= 9 \times (-(\sqrt{9})!! + 8 + 7! + 3). \end{aligned}$$

$$\begin{aligned} 39096 &= (3!! + \sqrt{9} + 0!) \times 9 \times 6 \\ &= (6! + \sqrt{9} + 0!) \times 9 \times 3! \\ &= (0! + (3 + 6!)) \times 9 \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times 9 \times (6! + 3 + 0!). \end{aligned}$$

$$\begin{aligned} 39339 &= (3! \times 9^3 - 3) \times 9 \\ &= -9 \times (3 - 3! \times 9^3) \\ &= (-3 + 3! \times (3!! + 9)) \times 9 \\ &= 9 \times (9^3 \times 3! - 3). \end{aligned}$$

$$\begin{aligned} 39348 &= -(3 + 9) \times 3^4 + 8! \\ &= 8! - 4 \times \sqrt{3^9 \times 3} \\ &= (-3 + \sqrt{\sqrt{3^{4 \times 8}}}) \times (\sqrt{9})!! \\ &= (9^{8-4} - 3) \times 3!. \end{aligned}$$

$$\begin{aligned} 39363 &= 3^6 \times 3! \times 9 - 3 \\ &= 3^9 / 3 \times 6 - 3 \\ &= -3 + 3! \times 3^6 \times 9 \\ &= 9 \times 6 \times 3^{3!} - 3. \end{aligned}$$

$$\begin{aligned} 39366 &= 3^9 \times (3 - 6/6) \\ &= 6 \times (6 - 3)^9 / 3 \\ &= 3! \times (3 - 6)^6 \times 9 \\ &= 9 \times 6 \times (6 - 3)^{3!}. \end{aligned}$$

$$\begin{aligned} 39369 &= 3 + 9^3 \times 6 \times 9 \\ &= (9 + 6 \times 3^9) / 3 \\ &= 3 + 3! \times (6! + 9) \times 9 \\ &= 9 \times (9 + 6!) \times 3! + 3. \end{aligned}$$

$$\begin{aligned} 39382 &= ((3 \times 9)^3 + 8) \times 2 \\ &= 2 \times (8 + (3 \times 9)^3) \\ &= -2 + (3 + 3^8) \times (\sqrt{9})!! \\ &= (\sqrt{9^8} + 3) \times 3! - 2. \end{aligned}$$

$$\begin{aligned} 39384 &= 3 \times (\sqrt{9} + 3^8) \times \sqrt{4} \\ &= 4! + 8! - 3!! - (\sqrt{9})!! / 3 \\ &= -3 \times 3 \times 4! + 8! - (\sqrt{9})!! \\ &= (9^{8-4} + 3) \times 3!. \end{aligned}$$

$$\begin{aligned} 39438 &= 3! \times (\sqrt{9} \times 4 + 3^8) \\ &= 8! - 3! \times 49 \times 3 \\ &= -3!! \times (3 + 4!) + 8! - (\sqrt{9})!! \\ &= (\sqrt{9^8} + 4 \times 3) \times 3!. \end{aligned}$$

$$\begin{aligned} 39456 &= (3!! \times 9 - 4! + 5!) \times 6 \\ &= 6 \times (5! - 4! + 9 \times 3!!) \\ &= 3! \times (-4! + 5! + 6! \times 9) \\ &= (9 \times 6! + 5! - 4!) \times 3!. \end{aligned}$$

$$\begin{aligned} 39478 &= 3! - (\sqrt{9})!! - \sqrt{4^7} + 8! \\ &= 8! - (7! + 4 \times \sqrt{9}) / 3! \\ &= 3! - \sqrt{4^7} + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - (7! - 4!) / 3!. \end{aligned}$$

$$\begin{aligned} 39480 &= -3!! - (9 - 4)! + 8! + 0 \\ &= 0 + 8! - (\sqrt{49})! / 3! \\ &= -((0 \times 3)! + 4)! + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - 4 \times 30. \end{aligned}$$

$$\begin{aligned} 39481 &= -3!! - (9 - 4)! + 8! + 1 \\ &= 1 + 8! - (\sqrt{49})! / 3! \\ &= 1 - (3 + \sqrt{4})! + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - (\sqrt{4} + 3)! + 1. \end{aligned}$$

$$\begin{aligned} 39482 &= -3!! - (9 - 4)! + 8! + 2 \\ &= 2 + 8! - (\sqrt{49})! / 3! \\ &= -(2 + 3)! + \sqrt{4} + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + \sqrt{4} - (3 + 2)!. \end{aligned}$$

$$\begin{aligned} 39483 &= -3!! - (9 - 4)! + 8! + 3 \\ &= 3 + 8! - (\sqrt{49})! / 3! \\ &= 3 - (3 + \sqrt{4})! + 8! - (\sqrt{9})!! \\ &= \sqrt{9} + 8! - (4 + 3)! / 3!. \end{aligned}$$

$$\begin{aligned} 39484 &= -3!! - (9 - 4)! + 8! + 4 \\ &= 4 + 8! - (\sqrt{49})! / 3! \\ &= -(3 + \sqrt{4})! + 4 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 4 - (\sqrt{4} + 3)!. \end{aligned}$$

$$\begin{aligned} 39485 &= -3!! - (9 - 4)! + 8! + 5 \\ &= 5 + 8! - (\sqrt{49})!/3! \\ &= -3!! - 4 - 5! + 8! + 9 \\ &= 9 + 8! - 5! - 4 - 3!! \end{aligned}$$

$$\begin{aligned} 39486 &= -3!! - (9 - 4)! + 8! + 6 \\ &= 6 + 8! - (\sqrt{49})!/3! \\ &= -(3 + 4)!/6 + 8! + (\sqrt{9})! \\ &= \sqrt{9^8} \times 6 + (\sqrt{4} + 3)!. \end{aligned}$$

$$\begin{aligned} 39487 &= -3!! - (9 - 4)! + 8! + 7 \\ &= 7 + 8! - (\sqrt{49})!/3! \\ &= -(3 + \sqrt{4})! + 7 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 7 - (\sqrt{4} + 3)!. \end{aligned}$$

$$\begin{aligned} 39488 &= -3!! - (9 - 4)! + 8! + 8 \\ &= 8 + 8! - (\sqrt{49})!/3! \\ &= (3 \times 4^8 + 8!)/(\sqrt{9})! \\ &= -(\sqrt{9})!! + 8 + 8! - (\sqrt{4} + 3)!. \end{aligned}$$

$$\begin{aligned} 39489 &= -3!! - (9 - 4)! + 8! + 9 \\ &= 9 + 8! - (\sqrt{49})!/3! \\ &= -(3 + \sqrt{4})! + 8! + 9 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 9 + 8! - (\sqrt{4} + 3)!. \end{aligned}$$

$$\begin{aligned} 39555 &= (3!! - \sqrt{9}) \times 55 + 5! \\ &= 5! + 55 \times ((\sqrt{9})!! - 3) \\ &= 3!! \times 55 - 5 \times 9 \\ &= -9 \times 5 + 55 \times 3!!.. \end{aligned}$$

$$\begin{aligned} 39564 &= -3!! + (\sqrt{9} + 5)! - \sqrt{6^4} \\ &= (\sqrt{4} + 6)! - (5! + (\sqrt{9})!) \times 3! \\ &= (3! + \sqrt{4})! - (5! + 6) \times (\sqrt{9})! \\ &= -(\sqrt{9})! \times (6 + 5!) + (\sqrt{4^3})!. \end{aligned}$$

$$\begin{aligned} 39578 &= -3!! - \sqrt{9} \times 5 - 7 + 8! \\ &= 8! - 7 - 5 \times \sqrt{9} - 3!! \\ &= -3 \times 5 - 7 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - 7 - 5 \times 3. \end{aligned}$$

$$\begin{aligned} 39579 &= -3!! + (\sqrt{9} + 5)! - 7 \times \sqrt{9} \\ &= -\sqrt{9} \times 7 + (5 + \sqrt{9})! - 3!! \\ &= (3 + 5)! - 7 \times \sqrt{9} - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - \sqrt{9} \times 7 + (5 + 3)!. \end{aligned}$$

$$\begin{aligned} 39581 &= -1 + 8! - (5! + \sqrt{9}) \times 3! \\ &= -3! \times (\sqrt{9} + 5!) + 8! - 1 \\ &= -(1 + 3)! + 5 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 5 - (3 + 1)!. \end{aligned}$$

$$\begin{aligned} 39582 &= -3! \times (\sqrt{9} + 5!) + (\sqrt{8^2})! \\ &= 2 + 8! - 5! / (\sqrt{9})! - 3!! \\ &= -23 + 5 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - 5! / 3! + 2. \end{aligned}$$

$$\begin{aligned} 39583 &= -3^{(\sqrt{9})!} - 5 + 8! - 3 \\ &= -3 + 8! - 5 - 9^3 \\ &= -3!! + (3 + 5)! - 8 - 9 \\ &= -9 - 8 + (5 + 3)! - 3!!.. \end{aligned}$$

$$\begin{aligned} 39584 &= 3 - (\sqrt{9})!! + (5 + 8!) - 4! \\ &= -\sqrt{4} + 8! - 5 - 9^3 \\ &= -3!! / 45 + 8! - (\sqrt{9})!! \\ &= 9 + 8! - \sqrt{5^4} - 3!!.. \end{aligned}$$

$$\begin{aligned} 39586 &= -3 \times \sqrt{9} - 5 + 8! - 6! \\ &= -6! + 8! - 5 - \sqrt{9} \times 3 \\ &= (3 + 5)! - 6 - 8 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - 8 - 6 + (5 + 3)!. \end{aligned}$$

$$\begin{aligned} 39587 &= -3! - (\sqrt{9})! \times 5! + 8! - 7 \\ &= -7 + 8! - 5! \times (\sqrt{9})! - 3! \\ &= -3! \times 5! - 7 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 7 - 5! / 3!. \end{aligned}$$

$$\begin{aligned} 39588 &= -3 - 9^{-5+8} + 8! \\ &= 8! - 8 + 5 - 9^3 \\ &= -3!! + (5 - 8 + 8! - 9) \\ &= -9 - 8 + 8! + 5 - 3!!.. \end{aligned}$$

$$\begin{aligned} 39589 &= 3 - (\sqrt{9})!! - 5 + 8! - 9 \\ &= \sqrt{9} + 8! - 5 - 9^3 \\ &= 3 - 5 + 8! - 9 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - 9 + 8! - 5 + 3. \end{aligned}$$

$$\begin{aligned} 39591 &= -3 \times \sqrt{9^5} + (9 - 1)! \\ &= 1 \times (\sqrt{9} + 5)! - 9^3 \\ &= (13 - 5)! - 9 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - 9 + (5 + 3)! \times 1. \end{aligned}$$

$$\begin{aligned} 39592 &= -3! + (\sqrt{9} + 5)! - (\sqrt{9})!! - 2 \\ &= (2^{\sqrt{9}})! - 5 - (\sqrt{9})!! - 3 \\ &= -2 + (3 + 5)! - (\sqrt{9})! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - (\sqrt{9})! + (5 + 3)! - 2. \end{aligned}$$

$$\begin{aligned} 39594 &= (3^9 + 5! - (\sqrt{9})!) \times \sqrt{4} \\ &= (4 + 9 - 5)! - (\sqrt{9})!! - 3! \\ &= 3!! \times (-4 + 59) - (\sqrt{9})! \\ &= -(\sqrt{9})!! + (9 - 5 + 4)! - 3!. \end{aligned}$$

$$\begin{aligned} 39595 &= -(-3 + 9)! + (5 + \sqrt{9})! - 5 \\ &= (5 + \sqrt{9})! - 5 - (9 - 3)! \\ &= -3! \times 5! - 5 + 9!/9 \\ &= 9!/9 - 5 - 5! \times 3!. \end{aligned}$$

$$\begin{aligned} 39597 &= -3 - (\sqrt{9})!! + (5 + \sqrt{9}) \times 7! \\ &= 7! \times (\sqrt{9} + 5) - (\sqrt{9})!! - 3 \\ &= (3 \times 5 - 7)! - \sqrt{9} - (\sqrt{9})!! \\ &= -(\sqrt{9})!! - \sqrt{9} + ((7 - 5)^3)!. \end{aligned}$$

$$\begin{aligned} 39598 &= -(-3 + 9)! - 5 + \sqrt{9} + 8! \\ &= 8! + \sqrt{9} - 5 - (9 - 3)! \\ &= 3 - 5 + 8! - (\sqrt{\sqrt{9} \times 9})!! \\ &= -(\sqrt{\sqrt{9} \times 9})!! + 8! - 5 + 3. \end{aligned}$$

$$\begin{aligned} 39599 &= -3!! + (\sqrt{9} + 5)! - 9/9 \\ &= 9!/9 + 5 - (\sqrt{9})!! - 3! \\ &= -3! \times 5! + (-9 + 9!)/9 \\ &= (9! - 9)/9 - 5! \times 3!. \end{aligned}$$

$$\begin{aligned} 39600 &= 3!! \times (9 \times 6 + 0!) + 0 \\ &= 0 + (0! + 6 \times 9) \times 3!! \\ &= (0! + 0! + 3!)! - (-6 + 9)!! \\ &= -(9 - 6)!! + (3! + 0! + 0!)!. \end{aligned}$$

$$\begin{aligned} 39601 &= 3!! \times (9 \times 6 + 0!) + 1 \\ &= 1 + (0! + 6 \times 9) \times 3!! \\ &= 0! + (\sqrt{(-1 + 3)^6})! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (\sqrt{63 + 1})! + 0!. \end{aligned}$$

$$\begin{aligned} 39602 &= 3!! \times (9 \times 6 + 0!) + 2 \\ &= 2 + (0! + 6 \times 9) \times 3!! \\ &= -0! + (2^3)! - 6! + \sqrt{9} \\ &= \sqrt{9} - 6! + (3! + 2)! - 0!. \end{aligned}$$

$$\begin{aligned} 39603 &= 3!! \times (9 \times 6 + 0!) + 3 \\ &= 3 + (0! + 6 \times 9) \times 3!! \\ &= (-0! + 3 \times 3)! - 6! + \sqrt{9} \\ &= \sqrt{9} - 6! + (3 \times 3 - 0!)!. \end{aligned}$$

$$\begin{aligned} 39604 &= 3!! \times (9 \times 6 + 0!) + 4 \\ &= 4 + (0! + 6 \times 9) \times 3!! \\ &= 0! + 3 + (\sqrt{\sqrt{4^6}})! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (\sqrt{64})! + 3 + 0!. \end{aligned}$$

$$\begin{aligned} 39605 &= 3!! \times (9 \times 6 + 0!) + 5 \\ &= 5 + (0! + 6 \times 9) \times 3!! \\ &= -0! + (3 + 5)! + 6 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 6 + (5 + 3)! - 0!. \end{aligned}$$

$$\begin{aligned} 39606 &= 3!! \times (9 \times 6 + 0!) + 6 \\ &= 6 + (0! + 6 \times 9) \times 3!! \\ &= (-0! + 3 + 6)! + 6 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 6 + (\sqrt{63 + 0!})!. \end{aligned}$$

$$\begin{aligned} 39607 &= 3!! \times (9 \times 6 + 0!) + 7 \\ &= 7 + (0! + 6 \times 9) \times 3!! \\ &= (-0! + 3 + 6)! + 7 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 7 + (\sqrt{63 + 0!})!. \end{aligned}$$

$$\begin{aligned} 39608 &= 3!! \times (9 \times 6 + 0!) + 8 \\ &= 8 + (0! + 6 \times 9) \times 3!! \\ &= -0! - (-3 + 6)!! + 8! + 9 \\ &= 9 + 8! - (6 - 3)!! - 0!. \end{aligned}$$

$$\begin{aligned} 39609 &= 3!! \times (9 \times 6 + 0!) + 9 \\ &= 9 + (0! + 6 \times 9) \times 3!! \\ &= (-0! + 3 + 6)! + 9 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 9 + (\sqrt{63 + 0!})!. \end{aligned}$$

$$\begin{aligned} 39618 &= 3 \times (\sqrt{9})! - 6! + 1 \times 8! \\ &= 8! - 1 \times 6! + \sqrt{9} \times 3! \\ &= 1 \times 3 \times 6 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 6 \times 3 \times 1. \end{aligned}$$

$$\begin{aligned} 39624 &= -(-3 + 9)! + (6 + 2)! + 4! \\ &= 4! + (2 + 6)! - (9 - 3)! \\ &= (2^3)! + 4! - (-6 + 9)!! \\ &= -(9 - 6)!! + 4! + (3! + 2)!. \end{aligned}$$

$$\begin{aligned} 39636 &= 3!! + (9 \times 6! + 3!) \times 6 \\ &= 6 \times (3! + 6! \times 9) + 3!! \\ &= 3!! + 3! \times (6 + 6! \times 9) \\ &= (9 \times 6! + 6) \times 3! + 3!!. \end{aligned}$$

$$\begin{aligned} 39648 &= -3!! + 96/\sqrt{4} + 8! \\ &= 8! - 4! - (6^{\sqrt{9}}) \times 3 \\ &= (-3 \times 4 + 6!) \times 8! / (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8 \times 6 + (\sqrt{4^3})!. \end{aligned}$$

$$\begin{aligned} 39678 &= -3!! + (\sqrt{9})! \times (6 + 7) + 8! \\ &= 8! + (7 + 6) \times (\sqrt{9})! - 3!! \\ &= 3! \times (6 + 7) + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + (7 + 6) \times 3!. \end{aligned}$$

$$\begin{aligned} 39744 &= (3! + 9 \times 7) \times 4! \times 4! \\ &= 4! \times 4! \times (7 \times 9 + 3!) \\ &= (-3!! + 4 \times 4! + 7!) \times 9 \\ &= 9 \times (7! + 4 \times 4! - 3!!). \end{aligned}$$

$$\begin{aligned} 39754 &= -3! + (9! - 7!)/(5 + 4) \\ &= ((4 + 5)! - 7!)/9 - 3! \\ &= -3! + ((4 + 5)! - 7!)/9 \\ &= (9! - 7!)/(5 + 4) - 3!. \end{aligned}$$

$$\begin{aligned} 39763 &= ((3 + 6)! - 7!)/9 + 3 \\ &= 3 + (9! - 7!)/(6 + 3) \\ &= 3 + ((3 + 6)! - 7!)/9 \\ &= (9! - 7!)/(6 + 3) + 3. \end{aligned}$$

$$\begin{aligned} 39768 &= ((3!! - 9) \times 7 - 6) \times 8 \\ &= 8 \times (-6 + 7 \times (-9 + 3!!)) \\ &= (3 + 6!) \times 7 \times 8 - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8 \times 7 \times (6! + 3). \end{aligned}$$

$$\begin{aligned} 39816 &= (3!! - 9) \times 8 \times (1 + 6) \\ &= (6 + 1) \times 8 \times (-9 + 3!!) \\ &= 1 \times \sqrt{3!^6} + 8! - (\sqrt{9})!! \\ &= (-9! + 8! \times 6!)/3!! \times 1. \end{aligned}$$

$$\begin{aligned} 39834 &= (-3^9 + 8! - 3!!) \times \sqrt{4} \\ &= 4! - 3! + 8! - 9!/3!! \\ &= -3! \times (3^4 - 8! / (\sqrt{9})!!) \\ &= -(\sqrt{9})! + 8! - 4 \times 3!!/3!. \end{aligned}$$

$$\begin{aligned} 39835 &= 3!!/3 - 5 + 8! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! - 5 + 3!!/3 \\ &= 3!!/\sqrt{9} + 8! - 3!! - 5 \\ &= -5 - 3!! + 8! + (\sqrt{9})!!/3. \end{aligned}$$

$$\begin{aligned} 39878 &= 3! + ((\sqrt{9})!! - 8) \times 7 \times 8 \\ &= 8 \times 7 \times (-8 + (\sqrt{9})!!) + 3! \\ &= 3! + 7 \times 8 \times (-8 + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! - 8) \times 8 \times 7 + 3!. \end{aligned}$$

$$\begin{aligned} 39888 &= -3 \times 9 \times (8 + 8) + 8! \\ &= 8! - (8 + 8) \times 9 \times 3 \\ &= \sqrt{\sqrt{3!^8}} \times 8 + 8! - (\sqrt{9})!! \\ &= \sqrt{\sqrt{(\sqrt{9})!^8}} \times 8 + 8! - 3!!.. \end{aligned}$$

$$\begin{aligned} 39957 &= -3 + 9 \times (-(\sqrt{9})!! + 5! + 7!) \\ &= (7! + 5! - (\sqrt{9})!!) \times 9 - 3 \\ &= (-3!! + 5! + 7!) \times 9 - \sqrt{9} \\ &= -\sqrt{9} + 9 \times (7! + 5! - 3!!). \end{aligned}$$

$$\begin{aligned} 39958 &= -3!/\sqrt{9} - \sqrt{9} \times 5! + 8! \\ &= 8! - (5! \times 9 + (\sqrt{9})!)/3 \\ &= -3 \times 5! + 8! - (\sqrt{9})!/\sqrt{9} \\ &= -((\sqrt{9})!/\sqrt{9})! + 8! - 5! \times 3. \end{aligned}$$

$$\begin{aligned} 39978 &= 3! \times ((\sqrt{9})! - 9 \times 7) + 8! \\ &= 8! - 7^{\sqrt{9}} + \sqrt{9}/3 \\ &= -3! - 7 \times 8 \times ((\sqrt{9})! - (\sqrt{9})!!) \\ &= (-9 + 9)! + 8! - 7^3. \end{aligned}$$

$$\begin{aligned} 39983 &= (-3!! + (-(\sqrt{9})! + (\sqrt{9})!!) \times 8!)/3!! \\ &= (-3!! + 8! \times (-(\sqrt{9})! + (\sqrt{9})!!))/3!! \\ &= ((-3! + 3!!) \times 8! - (\sqrt{9})!!)/(\sqrt{9})!! \\ &= ((-(\sqrt{9})! + (\sqrt{9})!!) \times 8! - 3!!)/3!!.. \end{aligned}$$

$$\begin{aligned} 39984 &= (3!! - (\sqrt{9})!) \times ((\sqrt{9})! + 8) \times 4 \\ &= 4 \times (8 + (\sqrt{9})!) \times ((\sqrt{9})!! - 3!) \\ &= (3 + 4) \times 8 \times ((\sqrt{9})!! - (\sqrt{9})!) \\ &= ((\sqrt{9})!! - (\sqrt{9})!) \times 8 \times (4 + 3). \end{aligned}$$

$$\begin{aligned} 39987 &= 3 + ((\sqrt{9})!! - (\sqrt{9})!) \times 8 \times 7 \\ &= 7 \times 8 \times ((\sqrt{9})!! - (\sqrt{9})!) + 3 \\ &= (-37 + 8!/9) \times 9 \\ &= (-(\sqrt{9})! + (\sqrt{9})!!) \times 8 \times 7 + 3. \end{aligned}$$

$$\begin{aligned} 40284 &= -\sqrt{40^2} + 8! + 4 \\ &= 4 + 8! - 20 \times \sqrt{4} \\ &= (-0! - 2 \times 4) \times 4 + 8! \\ &= 8! - 4 \times 4 - 20. \end{aligned}$$

$$\begin{aligned} 40298 &= -40 + 2 \times 9 + 8! \\ &= 8! - 9 \times 2 + 0 - 4 \\ &= -02^4 + 8! - (\sqrt{9})! \\ &= -9 + 8! - 4!/2 - 0!. \end{aligned}$$

$$\begin{aligned} 40128 &= (-4! + (0! + (1+2)!)!) \times 8 \\ &= 8! + (2-10) \times 4! \\ &= ((0! + (1+2)!)! - 4!) \times 8 \\ &= 8! + 4! \times (2-10). \end{aligned}$$

$$\begin{aligned} 40285 &= -\sqrt{40^2} + 8! + 5 \\ &= 5 + 8! - 20 \times \sqrt{4} \\ &= (0! - 2 \times 4) \times 5 + 8! \\ &= 8! + 5 \times (-4 \times 2 + 0!). \end{aligned}$$

$$\begin{aligned} 40299 &= -4! + 0! + 2 + 9!/9 \\ &= 9!/9 + 2 + 0! - 4! \\ &= 0! + 2 - 4! + 9!/9 \\ &= 9!/9 - 4! + 2 + 0!. \end{aligned}$$

$$\begin{aligned} 40198 &= (-(4+0!)! + 1 - \sqrt{9}) + 8! \\ &= 8! - \sqrt{9} + 1 - (0! + 4)! \\ &= 0! - (1+4)! + 8! - \sqrt{9} \\ &= -\sqrt{9} + 8! - (4+1)! - 0!. \end{aligned}$$

$$\begin{aligned} 40287 &= -\sqrt{40^2} + 8! + 7 \\ &= 7 + 8! - 20 \times \sqrt{4} \\ &= -02 - 4! - 7 + 8! \\ &= 8! - 7 - 4! - 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 40308 &= 4 \times (0-3) - 0 + 8! \\ &= 8! + 0 + 3 \times (0-4) \\ &= -003 \times 4 + 8! \\ &= 8! - 4 \times 3 \times 0! \times 0!. \end{aligned}$$

$$\begin{aligned} 40199 &= -(4+0!)! - 1 + 9!/9 \\ &= 9!/9 - 1 - (0! + 4)! \\ &= -0! - (1+4)! + 9!/9 \\ &= 9!/9 - (4+1)! - 0!. \end{aligned}$$

$$\begin{aligned} 40288 &= -\sqrt{40^2} + 8! + 8 \\ &= 8 + 8! - 20 \times \sqrt{4} \\ &= -024 - 8 + 8! \\ &= 8! - 8 - 4 - 20. \end{aligned}$$

$$\begin{aligned} 40309 &= -\sqrt{4} + (0! + 3! + 0!)! - 9 \\ &= (9-0!)! - 3! - 0! - 4 \\ &= (0! + 0! + 3!)! - \sqrt{4} - 9 \\ &= -9 + (4!/3)! - 0! - 0!. \end{aligned}$$

$$\begin{aligned} 40228 &= -4 \times (0! + 22) + 8! \\ &= 8! - (22+0!) \times 4 \\ &= -(0! + 22) \times 4 + 8! \\ &= 8! - 4 \times (22+0!). \end{aligned}$$

$$\begin{aligned} 40289 &= -\sqrt{40^2} + 8! + 9 \\ &= 9 + 8! - 20 \times \sqrt{4} \\ &= 02 - 4! + 8! - 9 \\ &= -9 + 8! - 4! + 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 40313 &= (\sqrt{4^{03}})! - 1 - 3! \\ &= -3 + (1+3!+0!)! - 4 \\ &= (0!+1+3!)! - 3 - 4 \\ &= (4!/3)! + 3 - 10. \end{aligned}$$

$$\begin{aligned} 40248 &= -(4-0!) \times 24 + 8! \\ &= 8! + (\sqrt{4}-20) \times 4 \\ &= -02 \times 4! - 4! + 8! \\ &= 8! - 4! \times (4-2^0). \end{aligned}$$

$$\begin{aligned} 40293 &= (4 \times (0+2))! - 9 \times 3 \\ &= -3 \times 9 + (2 \times (0+4))! \\ &= (02^3)! - 4! - \sqrt{9} \\ &= -\sqrt{9} - 4! + (3!+2-0)!. \end{aligned}$$

$$\begin{aligned} 40314 &= -(4-0!)! + (3+1+4)! \\ &= -(4-1)! + (3+0!+4)! \\ &= -01 \times 3! + (4+4)! \\ &= (4+4)! - (3-1+0!)!. \end{aligned}$$

$$\begin{aligned} 40278 &= -40 - 2 + 7! \times 8 \\ &= 8! - 7 \times (2+0+4) \\ &= -(02+4) \times 7 + 8! \\ &= 8 \times 7! - 42 \times 0!. \end{aligned}$$

$$\begin{aligned} 40294 &= -\sqrt{4} - 0 + (2^{\sqrt{9}})! - 4! \\ &= (\sqrt{4^{\sqrt{9}}})! - 2 + 0 - 4! \\ &= -02 - 4! + (\sqrt{4^{\sqrt{9}}})! \\ &= -(\sqrt{9})! + (4+4)! - 20. \end{aligned}$$

$$\begin{aligned} 40315 &= (40/(3!-1))! - 5 \\ &= -5 + (13-0!-4)! \\ &= (-0!+13-4)! - 5 \\ &= -5 + (4 \times (3-1))! \times 0!. \end{aligned}$$

$$\begin{aligned} 40282 &= -\sqrt{40^2} + 8! + 2 \\ &= 2 + 8! - 20 \times \sqrt{4} \\ &= -\sqrt{(0!+2)!! \times 2+4} + 8! \\ &= 8! + \sqrt{4} - 2 \times 20. \end{aligned}$$

$$\begin{aligned} 40295 &= -4! - 0! + (2 \times (9-5))! \\ &= (5+\sqrt{9})! - 2 + 0! - 4! \\ &= -0! + (2 \times 4)! - (-5+9)! \\ &= -(9-5)! + (4 \times 2)! - 0!. \end{aligned}$$

$$\begin{aligned} 40316 &= -4 + 0 + (3-1+6)! \\ &= (\sqrt{61+3})! + 0 - 4 \\ &= (0!+1+3!)! - 4!/6 \\ &= 6 + (4!/3)! - 10. \end{aligned}$$

$$\begin{aligned} 40283 &= -\sqrt{40^2} + 8! + 3 \\ &= 3 + 8! - 20 \times \sqrt{4} \\ &= -0! - 2 - 34 + 8! \\ &= 8! - 4 - 32 - 0!. \end{aligned}$$

$$\begin{aligned} 40297 &= -4! + 0! + (2 \times \sqrt{9+7})! \\ &= ((7+9)/2)! + 0! - 4! \\ &= 0! + (2 \times 4)! - (\sqrt{7+9})! \\ &= -(\sqrt{9+7})! + (4 \times 2)! + 0!. \end{aligned}$$

$$\begin{aligned} 40317 &= 4 \times 0 - 3 + (1+7)! \\ &= (7+1)! - 3 + 0/4 \\ &= (0!+1+3!)! + 4 - 7 \\ &= 7 + (4!/3)! - 10. \end{aligned}$$

$$\begin{aligned} 40318 &= 4 \times 0 - 3 + 1 + 8! \\ &= 8! - 1 + 3 + 0 - 4 \\ &= -0! - 1^3 4 + 8! \\ &= 8! - 4 \times 3 + 10. \end{aligned}$$

$$\begin{aligned} 40319 &= (\sqrt{4^{03}})! - 1^9 \\ &= (9 - 1)! + 3 + 0 - 4 \\ &= -0! + (13 + 4 - 9)! \\ &= 9 + (4!/3)! - 10. \end{aligned}$$

$$\begin{aligned} 40320 &= (40 - 32)! + 0 \\ &= 0 + ((2 + 30)/4)! \\ &= ((0! + (0 \times 23))! \times 4)! \\ &= (4!/3)! + 20 \times 0. \end{aligned}$$

$$\begin{aligned} 40321 &= (40 - 32)! + 1 \\ &= 1 + ((2 + 30)/4)! \\ &= ((0! + (0 \times 23))! \times 4)! \\ &= (4!/3)! + 20 \times 0 \\ &= 0! + (12/3 + 4)! \\ &= 4 - 3 + (-2 + 10)!. \end{aligned}$$

$$\begin{aligned} 40322 &= (40 - 32)! + 2 \\ &= 2 + ((2 + 30)/4)! \\ &= -02 + (2^3)! + 4 \\ &= (-4! + 32)! + 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 40323 &= (40 - 32)! + 3 \\ &= 3 + ((2 + 30)/4)! \\ &= -0! + (2 + 3 + 3)! + 4 \\ &= (4!/3)! + 3 + 2 \times 0. \end{aligned}$$

$$\begin{aligned} 40332 &= 4 \times (0 + 3) + (3! + 2)! \\ &= (2^3)! + 3 \times (0 + 4) \\ &= (02^3)! + 3 \times 4 \\ &= 4 \times 3 + (3! + 2 \times 0!)!. \end{aligned}$$

$$\begin{aligned} 40337 &= 4! + (-0! + 3 \times 3)! - 7 \\ &= -7 + (3 \times 3 - 0!)! + 4! \\ &= (-0! + 3 \times 3)! + 4! - 7 \\ &= -7 + 4! + (3 \times 3 - 0!)!. \end{aligned}$$

$$\begin{aligned} 40338 &= -03 - 3 + 4! + 8! \\ &= 8! - 4 \times 3 + 30 \\ &= (4 + 0!) \times 3 + (3 + 8!) \\ &= 8! + 3 + 30/\sqrt{4}. \end{aligned}$$

$$\begin{aligned} 40342 &= (\sqrt{4^{03}})! + 4! - 2 \\ &= (2 \times 4)! - 3 + 0! + 4! \\ &= -0! + 23 + (4 + 4)! \\ &= 4! + (4!/3)! - 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 40343 &= 4! - (0 \times 3)! + (\sqrt{4^3})! \\ &= (3 + \sqrt{4} + 3)! - 0! + 4! \\ &= -0! + (3! + 3! - 4)! + 4! \\ &= 4! + (4!/3)! - (3 \times 0)!.. \end{aligned}$$

$$\begin{aligned} 40344 &= 4! - 0/3 + (4 + 4)! \\ &= (4 + 4)! + 3! \times (0 + 4) \\ &= (03 \times 4 - 4)! + 4! \\ &= (4 + 4)! + 4 \times 3! \times 0!. \end{aligned}$$

$$\begin{aligned} 40346 &= 4! - 0! + 3 + (\sqrt{4} + 6)! \\ &= (\sqrt{64})! + 30 - 4 \\ &= -0! + 3 + 4! + (\sqrt{\sqrt{4^6}})! \\ &= (\sqrt{64})! - 4 + 30. \end{aligned}$$

$$\begin{aligned} 40358 &= 40 + 3 - 5 + 8! \\ &= 8! + 5!/3 + 0 - \sqrt{4} \\ &= -0! + 34 + 5 + 8! \\ &= 8! - 5 + 43 \times 0!. \end{aligned}$$

$$\begin{aligned} 40368 &= ((4 - 0 + 3)! + 6) \times 8 \\ &= 8 \times (6 + (3 + 0 + 4)!) \\ &= -0! + 3 + 46 + 8! \\ &= 8! + 6 + 43 - 0!. \end{aligned}$$

$$\begin{aligned} 40380 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 0 \\ &= 0 + 8! + 30 \times \sqrt{4} \\ &= (0! + 0!)^{3!} - 4 + 8! \\ &= 8! + 4! + 3!^{0!+0!}. \end{aligned}$$

$$\begin{aligned} 40381 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 1 \\ &= 1 + 8! + 30 \times \sqrt{4} \\ &= 0! + (-1 + 3)!/\sqrt{4} + 8! \\ &= 8! + \sqrt{4} \times 31 - 0!. \end{aligned}$$

$$\begin{aligned} 40382 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 2 \\ &= 2 + 8! + 30 \times \sqrt{4} \\ &= 02^{3!} - \sqrt{4} + 8! \\ &= 8! + 4^3 - 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 40383 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 3 \\ &= 3 + 8! + 30 \times \sqrt{4} \\ &= 03 \times (-3 + 4!) + 8! \\ &= 8! + 4^3 - (3 \times 0)!. \end{aligned}$$

$$\begin{aligned} 40384 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 4 \\ &= 4 + 8! + 30 \times \sqrt{4} \\ &= (0! + 3) \times 4 \times 4 + 8! \\ &= 8! + 4^{4-3^0}. \end{aligned}$$

$$\begin{aligned} 40385 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 5 \\ &= 5 + 8! + 30 \times \sqrt{4} \\ &= (0! + 3 \times 4) \times 5 + 8! \\ &= 8! + 5 \times (4 \times 3 + 0!). \end{aligned}$$

$$\begin{aligned} 40386 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 6 \\ &= 6 + 8! + 30 \times \sqrt{4} \\ &= 03 \times 4! - 6 + 8! \\ &= 8! + 64 + 3 - 0!. \end{aligned}$$

$$\begin{aligned} 40387 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 7 \\ &= 7 + 8! + 30 \times \sqrt{4} \\ &= 0! + 3! \times (4 + 7) + 8! \\ &= 8! + 74 - 3! - 0!. \end{aligned}$$

$$\begin{aligned} 40388 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 8 \\ &= 8 + 8! + 30 \times \sqrt{4} \\ &= (-0! + 3)!/\sqrt{4} + 8 + 8! \\ &= 8 + 8! + \sqrt{4} \times 30. \end{aligned}$$

$$\begin{aligned} 40389 &= \sqrt{(4 + 0!) \times 3!!} + 8! + 9 \\ &= 9 + 8! + 30 \times \sqrt{4} \\ &= 03 \times 4! + 8! - \sqrt{9} \\ &= 9 + 8! + \sqrt{4} \times 30. \end{aligned}$$

$$\begin{aligned} 40392 &= 4 \times ((0! + 3)! + 9) \times 2 \\ &= 2 \times (9 + (3! + 0!)!) \times 4 \\ &= (02^3)! + 4! \times \sqrt{9} \\ &= \sqrt{9} \times 4! + (3! + 2 - 0)!.. \end{aligned}$$

$$\begin{aligned} 40398 &= \sqrt{4} \times (0 + 39) + 8! \\ &= 8! + \sqrt{9} \times (30 - 4) \\ &= 03^4 + 8! - \sqrt{9} \\ &= (\sqrt{9})! + 8! + 4! \times 3 \times 0!. \end{aligned}$$

$$\begin{aligned} 40408 &= 4 \times (-0! + 4! - 0!) + 8! \\ &= 8! + (-0! + 4! - 0!) \times 4 \\ &= (0! + 0!) \times 44 + 8! \\ &= 8! + 44 \times (0! + 0!). \end{aligned}$$

$$\begin{aligned} 40428 &= (4 \times (0! + (4! + 2))) + 8! \\ &= 8! + (2 + 4! + 0!) \times 4 \\ &= (0! + 2 + 4!) \times 4 + 8! \\ &= 8! + 4 \times (4! + 2 + 0!). \end{aligned}$$

$$\begin{aligned} 40435 &= (4 + 0!)! + (\sqrt{4^3})! - 5 \\ &= 5! + (3! + \sqrt{4})! - 0! - 4 \\ &= (-0! + 3!)! + (4 + 4)! - 5 \\ &= -5 + (4 + 4)! + (3! - 0!)!. \end{aligned}$$

$$\begin{aligned} 40438 &= (4 + 0!)! + 4 - 3! + 8! \\ &= (8! + (3 \times 40)) - \sqrt{4} \\ &= ((0 \times 3)! + 4)! - \sqrt{4} + 8! \\ &= 8! - \sqrt{4} + 4 \times 30. \end{aligned}$$

$$\begin{aligned} 40440 &= (4 + 0 + 4)! + (4 + 0!)! \\ &= 0 + (4 + 4)! + (0! + 4)! \\ &= ((0 \times 0)! + 4)! + (4 + 4)! \\ &= (4 + 4)! + (4 \times 0! + 0!)!. \end{aligned}$$

$$\begin{aligned} 40441 &= (4 + 0!)! + (4 + 4)! + 1 \\ &= 1 + (4 + 4)! + (0! + 4)! \\ &= 0! + (1 + 4)! + (4 + 4)! \\ &= (4 + 4)! + (4 + 1)! + 0!. \end{aligned}$$

$$\begin{aligned} 40444 &= (4 + 0!)! + (4 + 4)! + 4 \\ &= 4 + (4 + 4)! + (0! + 4)! \\ &= (0! + 4)! + 4 + (4 + 4)! \\ &= 4 + (4 + 4)! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40445 &= (4 + 0!)! + (4 + 4)! + 5 \\ &= 5 + (4 + 4)! + (0! + 4)! \\ &= 0! + 4 + (4 + 4)! + 5! \\ &= 5 + (4 + 4)! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40446 &= (4 + 0!)! + (4 + 4)! + 6 \\ &= 6 + (4 + 4)! + (0! + 4)! \\ &= (0! + 4)! + (4 + 4)! + 6 \\ &= 6 + (4 + 4)! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40447 &= (4 + 0!)! + (4 + 4)! + 7 \\ &= 7 + (4 + 4)! + (0! + 4)! \\ &= (0! + 4)! + (4 + 4)! + 7 \\ &= 7 + (4 + 4)! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40448 &= (4 + 0!)! + (4 + 4)! + 8 \\ &= 8 + (4 + 4)! + (0! + 4)! \\ &= (0! + 4)! + 4 + 4 + 8! \\ &= 8 + (4 + 4)! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40449 &= (4 + 0!)! + (4 + 4)! + 9 \\ &= 9 + (4 + 4)! + (0! + 4)! \\ &= (0! + 4)! + (4 + 4)! + 9 \\ &= 9 + (4 + 4)! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40458 &= (4! - 0!) \times (\sqrt{4 + 5})! + 8! \\ &= 8! + 5! - (4 - 0!)! + 4! \\ &= -(-0! + 4)! + 4! + 5! + 8! \\ &= 8! + 5! + 4! - (4 - 0!)!. \end{aligned}$$

$$\begin{aligned} 40464 &= (4 - 0 + 4)! + 6 \times 4! \\ &= 4! \times 6 + (4 + 04)! \\ &= (04 + 4)! + 4! \times 6 \\ &= 6 \times 4! + (4 + 4 - 0)!. \end{aligned}$$

$$\begin{aligned} 40468 &= 4 - 0 + 4! \times 6 + 8! \\ &= 8! + 6 \times 4! + 04 \\ &= 04 + 4! \times 6 + 8! \\ &= 8! + 6 \times 4! + 4 \times 0!. \end{aligned}$$

$$\begin{aligned} 40558 &= (4 - 0!)^5 - 5 + 8! \\ &= 8! + 5! + 5! + 0 - \sqrt{4} \\ &= (-0! + 4)^5 - 5 + 8! \\ &= 8! + 5! + 5! - \sqrt{4} \times 0!. \end{aligned}$$

$$\begin{aligned} 40584 &= \sqrt{4} \times (0 + 5)! + 8! + 4! \\ &= 4! + 8! + 5! \times (0 + \sqrt{4}) \\ &= (0! + 4)! + 4! + 5! + 8! \\ &= 8! + 5! + 4! + (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 40585 &= 4! + 0! + 5! + 8! + 5! \\ &= 5! + 8! + 5! + 0! + 4! \\ &= 0! + 4! + 5! + 5! + 8! \\ &= 8! + 5 \times (54 - 0!). \end{aligned}$$

$$\begin{aligned} 40668 &= \sqrt{4! \times ((0! + 6)! + 6)} + 8! \\ &= 8! + 6 \times (60 - \sqrt{4}) \\ &= (0! + 0!) \times 4! \times 6 + 8! \\ &= 8! + 6 \times 4! \times (0! + 0!). \end{aligned}$$

$$\begin{aligned} 40832 &= (2^3)! + 8^{0!+\sqrt{4}} \\ &= \sqrt{4^{0!+8}} + (3! + 2)! \\ &= 02^{\sqrt{3^4}} + 8! \\ &= 8! + (4!/3)^{2+0!}. \end{aligned}$$

$$\begin{aligned} 40848 &= (4 - 0!)!! + 8! - 4! \times 8 \\ &= 8! - 4! \times 8 + (0! + \sqrt{4})!! \\ &= (-0! + 4)!! - 4! \times 8 + 8! \\ &= 8! - 8 \times 4! + (4 - 0!)!!. \end{aligned}$$

$$\begin{aligned} 40895 &= -4! - 0! + 8! + (\sqrt{9})!! - 5! \\ &= -5! + (\sqrt{9})!! + 8! - 0! - 4! \\ &= -0! - 4! - 5! + 8! + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 8! - 5! - 4! - 0!. \end{aligned}$$

$$\begin{aligned} 40896 &= -(4 - 0!)!! \times 8 + (\sqrt{9})!^6 \\ &= 6^{(\sqrt{9})!} - 8 \times (0! + \sqrt{4})!! \\ &= -04! \times 6 + 8! + (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 8! + 6^4 \times 0!. \end{aligned}$$

$$\begin{aligned} 40968 &= 4! \times (0 - \sqrt{9}) + 6! + 8! \\ &= 8! + \sqrt{6^{9-0!}/4} \\ &= (0! + 4)^4 + 8! + \sqrt{9} \\ &= (\sqrt{9})!! + 8! - 4 \times (4! - 0!). \end{aligned}$$

$$\begin{aligned} 41036 &= -4 + ((1 + 0!)^3)! + 6! \\ &= 6! + (3! + 0! + 1)! - 4 \\ &= (0! + 1 + 3!)! - 4 + 6! \\ &= 6! - 4 + (3! + 1 + 0!)!. \end{aligned}$$

$$\begin{aligned} 41038 &= (4 - 1)!! + 0! - 3 + 8! \\ &= 8! + 3!! + 0! + 1 - 4 \\ &= 0! + 1 + 3!! - 4 + 8! \\ &= 8! - 4 + 3!! + 1 + 0!. \end{aligned}$$

$$\begin{aligned} 41064 &= (-\sqrt{4} + 10)! + 6! + 4! \\ &= 4! + 6! + ((0! + 1) \times 4)! \\ &= ((0! + 1) \times 4)! + 4! + 6! \\ &= 6! + 4! + (4 \times (1 + 0!)!). \end{aligned}$$

$$\begin{aligned} 41448 &= -4! + 1 \times 4!^4 / 8 \\ &= 8! + 4! \times (4! - 1 + 4!) \\ &= -1 \times 4! + 4!^4 / 8 \\ &= 8! + 4! \times (4! + 4! - 1). \end{aligned}$$

$$\begin{aligned} 41472 &= 4! \times 1 \times 4! \times 72 \\ &= 2 \times (7 + 4 + 1)^4 \\ &= (1 + 2) \times 4!^{-4+7} \\ &= (7 - 4) \times 4!^{2+1}. \end{aligned}$$

$$\begin{aligned} 41499 &= (4 - 1) \times (4!^{\sqrt{9}} + 9) \\ &= \sqrt{9} \times (9 + 4!^{-1+4}) \\ &= (-1 + 4) \times (4!^{\sqrt{9}} + 9) \\ &= \sqrt{9} \times (9 + 4!^{4-1}). \end{aligned}$$

$$\begin{aligned} 41616 &= (4 - 1)!^6 - (1 + 6)! \\ &= -(6 + 1)! + 6^{-1+4}! \\ &= -(11 - 4)! + 6^6 \\ &= 6^6 - (-4 + 11)!. \end{aligned}$$

$$\begin{aligned} 41617 &= (4 - 1)!^6 + 1 - 7! \\ &= -7! + 1 + 6^{-1+4}! \\ &= 1 + (-1 + 4)!^6 - 7! \\ &= -7! + 6^{4-1}! + 1. \end{aligned}$$

$$\begin{aligned} 42048 &= 4!^2 \times (-0! + 4) + 8! \\ &= 8! + 4! \times (0! + 2) \times 4! \\ &= (0! + 2) \times 4! \times 4! + 8! \\ &= 8! + 4! \times 4! \times (2 + 0!). \end{aligned}$$

$$\begin{aligned} 42336 &= (4 + 2)^{3!} - 3! \times 6! \\ &= 63 \times (3!! - 2 \times 4!) \\ &= (2^3)! + 3!^4 + 6! \\ &= 6^4 + 3!! + (3! + 2)!. \end{aligned}$$

$$\begin{aligned} 42368 &= 4 \times 2^{3+6} + 8! \\ &= 8! + \sqrt{(6/3)^{-2+4}} \\ &= 2^{3+\sqrt{\sqrt{4^6}}} + 8! \\ &= 8! + 64 \times 32. \end{aligned}$$

$$\begin{aligned} 43188 &= (4 \times (3!! - 1) + 8!) - 8 \\ &= 8! - 8 + (-1 + 3!!) \times 4 \\ &= (-1 + 3!!) \times 4 - 8 + 8! \\ &= 8! - 8 + 4 \times (3!! - 1). \end{aligned}$$

$$\begin{aligned} 43195 &= 4 \times 3!! + (-1 + 9)! - 5 \\ &= -5 + (9 - 1)! + 3!! \times 4 \\ &= 1 + 3!!/\sqrt{4} \times 5! - (\sqrt{9})! \\ &= \sqrt{9} \times \sqrt{5!^4} - 3! + 1. \end{aligned}$$

$$\begin{aligned} 43198 &= 4 \times 3!! + 1 - \sqrt{9} + 8! \\ &= 8! - \sqrt{9} + 1 + 3!! \times 4 \\ &= (1 + 3!!) \times 4 + 8! - (\sqrt{9})! \\ &= -(\sqrt{9})! + 8! + 4 \times (3!! + 1). \end{aligned}$$

$$\begin{aligned} 43199 &= 4 \times 3!! - 1 + 9!/9 \\ &= 9!/9 - 1 + 3!! \times 4 \\ &= -1 + 3!! \times 4 + 9!/9 \\ &= 9!/9 + 4 \times 3!! - 1. \end{aligned}$$

$$\begin{aligned} 43208 &= 4 \times (3!! + 2) - 0 + 8! \\ &= 8! + (0 + 2 + 3!!) \times 4 \\ &= (02 + 3!!) \times 4 + 8! \\ &= 8! + 4 \times (3!! + 2 \times 0!). \end{aligned}$$

$$\begin{aligned} 43248 &= 4 \times 3!! + 2 \times 4! + 8! \\ &= 8! + 4! \times 2 + 3!! \times 4 \\ &= ((2 + 3)! + \sqrt{4}) \times 4! + 8! \\ &= 8! + 4! \times (\sqrt{4} + (3 + 2)!). \end{aligned}$$

$$\begin{aligned} 43264 &= 4^3 \times \sqrt{26^4} \\ &= (4! \times 6 + 2^{3!})^{\sqrt{4}} \\ &= 2^{3!} \times (-44 + 6!) \\ &= (6! - (4 + 4)^3)^2. \end{aligned}$$

$$\begin{aligned} 43584 &= ((4! + 3) \times 5! + 8!) + 4! \\ &= 4! + 8! + 5! \times (3 + 4!) \\ &= 34 \times (-4! + 5!) + 8! \\ &= 8! + 544 \times 3!. \end{aligned}$$

$$\begin{aligned} 43688 &= 4^{3!} - 6! + 8! - 8 \\ &= (8 + 8^6)/3! - 4 \\ &= -3!! + 4^6 - 8 + 8! \\ &= (8 + 8^6 - 4!)/3!. \end{aligned}$$

$$\begin{aligned} 43896 &= -4! - 3!! + 8! + (\sqrt{9})! \times 6! \\ &= (69 - 8) \times 3!! - 4! \\ &= (3!! + 4!) \times (68 - 9) \\ &= 9!/8 - 6! - 4! - 3!!. \end{aligned}$$

$$\begin{aligned} 43965 &= (\sqrt{4^3})! + \sqrt{9^6} \times 5 \\ &= 5 \times (6! + 9) + (3! + \sqrt{4})! \\ &= (3! + \sqrt{4})! + 5 \times (6! + 9) \\ &= (9 + 6!) \times 5 + (4!/3).. \end{aligned}$$

$$\begin{aligned} 44416 &= (4 + 4)! + 4^{1 \times 6} \\ &= (-6 + 14)! + \sqrt{\sqrt{4^{4!}}} \\ &= 1 \times (4 + 4)! + 4^6 \\ &= (\sqrt{64})! + 4^{4-1}!. \end{aligned}$$

$$\begin{aligned} 44496 &= (4 + 4)! + (-4! + 6!) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (6! - 4!) + (4 + 4)! \\ &= (4 + 4)! + (-4! + (\sqrt{9})!!) \times 6 \\ &= 6 \times ((\sqrt{9})!! - 4!) + (4 + 4)!. \end{aligned}$$

$$\begin{aligned} 44628 &= (4 + \sqrt{4}) \times (6! - 2) + 8! \\ &= 8! + (-2 + 6!) \times (4 + \sqrt{4}) \\ &= (-2 + (4!/4)!) \times 6 + 8! \\ &= 8! + 6 \times ((4!/4)! - 2). \end{aligned}$$

$$\begin{aligned} 44636 &= -4 + (\sqrt{4} + 6)! + 3! \times 6! \\ &= 6 \times 3!! + (\sqrt{64})! - 4 \\ &= (3! + \sqrt{4})! - 4 + 6 \times 6! \\ &= 6 \times 6! - 4 + (4!/3)!. \end{aligned}$$

$$\begin{aligned} 44637 &= (4 + 4)! - 6! - 3 + 7! \\ &= 7! - 3 - 6! + (4 + 4)! \\ &= -3 + (4 + 4)! - 6! + 7! \\ &= 7! - 6! + (4 + 4)! - 3. \end{aligned}$$

$$\begin{aligned} 44638 &= \sqrt{4} - 4 + 6 \times 3!! + 8! \\ &= 8! + 3! \times 6! + \sqrt{4} - 4 \\ &= (3 + 4)! - \sqrt{4} - 6! + 8! \\ &= 8! - 6! - \sqrt{4} + (4 + 3)!. \end{aligned}$$

$$\begin{aligned} 44664 &= (4 + 4)! + 6 \times (6! + 4) \\ &= (4 + 6!) \times 6 + (4 + 4)! \\ &= 4! + (4 + 4)! + 6 \times 6! \\ &= 6 \times (6! + 4) + (4 + 4)!. \end{aligned}$$

$$\begin{aligned} 44668 &= 4! + 4 + 6 \times 6! + 8! \\ &= 8! + 6 \times 6! + 4 + 4!. \end{aligned}$$

$$\begin{aligned} 44688 &= 4!/4 \times (6! + 8) + 8! \\ &= 8! + (8 + 6!) \times 4!/4. \end{aligned}$$

$$\begin{aligned} 44782 &= -4!^{\sqrt{4}} + 7! + 8! - 2 \\ &= (-2 + 8! + 7!) - 4!^{\sqrt{4}} \\ &= -2! - 4! \times 4! + 7! + 8! \\ &= 8! + 7! - 4! \times 4! - 2. \end{aligned}$$

$$\begin{aligned} 44784 &= -4! \times (4! - (7! + 8!)/4!) \\ &= 4! \times ((8! + 7!)/4! - 4!) \\ &= -\sqrt{4!^{1/\sqrt{4}}} + 7! + 8! \\ &= 8! + (7!/4! - 4!) \times 4!. \end{aligned}$$

$$\begin{aligned} 44928 &= 4^4 \times 9 \times 2 + 8! \\ &= 8! + 2 \times 9 \times 4^4 \\ &= (2 + 4!) \times 4! \times 8 \times 9 \\ &= 9 \times 8 \times 4! \times (4! + 2). \end{aligned}$$

$$\begin{aligned} 45279 &= -(4 + 5)^2 + 7! \times 9 \\ &= 9 \times 7! - (-2 + 5)^4 \\ &= (\sqrt{2^4} + 5) \times (7! - 9) \\ &= 9 \times 7! - (5 + 4)^2. \end{aligned}$$

$$\begin{aligned} 45297 &= (4 + 5) \times (2 - 9 + 7!) \\ &= (7! - 9 + 2) \times (5 + 4) \\ &= (2 - 4 - 5 + 7!) \times 9 \\ &= 9 \times (7! - 5 - 4 + 2). \end{aligned}$$

$$\begin{aligned} 45333 &= ((\sqrt{4} + 5)! - 3) \times 3 \times 3 \\ &= 3 \times 3 \times (-3 + (5 + \sqrt{4})!) \\ &= 3 \times 3 \times (-3 + (\sqrt{4} + 5)!) \\ &= ((5 + \sqrt{4})! - 3) \times 3 \times 3. \end{aligned}$$

$$\begin{aligned} 45339 &= (\sqrt{4} + 5) \times (-3 + 3!! \times 9) \\ &= (9 \times 3!! - 3) \times (5 + \sqrt{4}) \\ &= 3! + (-3 + (\sqrt{4} + 5)!) \times 9 \\ &= (9! - 5!)/(4!/3) - 3!. \end{aligned}$$

$$\begin{aligned} 45342 &= (4 + 5) \times ((3 + 4)! - 2) \\ &= (-2 + (4 + 3)!) \times (5 + 4) \\ &= (-2 + (3 + 4)!) \times (4 + 5) \\ &= (5 + 4) \times ((4 + 3)! - 2). \end{aligned}$$

$$\begin{aligned} 45348 &= (\sqrt{4} + 5)! - 3 \times 4 + 8! \\ &= 8! - 4 \times 3 + (5 + \sqrt{4})! \\ &= -3 \times 4 + (4 + 5)!/8 \\ &= 8! - \sqrt{5! + 4!} + (4 + 3)!. \end{aligned}$$

$$\begin{aligned} 45357 &= -\sqrt{4}^{5 \times 3} + 5^7 \\ &= 7! - 5 + (3 + 5)! + \sqrt{4} \\ &= -3 + 45/5 \times 7! \\ &= 7 \times 5! \times 54 - 3. \end{aligned}$$

$$\begin{aligned} 45358 &= (\sqrt{4} + 5)! + 3 - 5 + 8! \\ &= 8! - 5 + 3 + (5 + \sqrt{4})! \\ &= 3 + (\sqrt{4} + 5)! - 5 + 8! \\ &= 8! - 5 + (5 + \sqrt{4})! + 3. \end{aligned}$$

$$\begin{aligned} 45378 &= (4 + 5) \times (-3! + 7! + 8) \\ &= (8 + 7! - 3!) \times (5 + 4) \\ &= 3 \times (\sqrt{4 + 5})! + 7! + 8! \\ &= 8! + 7! + 54/3. \end{aligned}$$

$$\begin{aligned} 45379 &= 4 + 5 \times 3 + 7! \times 9 \\ &= 9 \times 7! + 3 \times 5 + 4 \\ &= 3! \times 4 - 5 + 7! \times 9 \\ &= 9 \times (7! - 5) + 4^3. \end{aligned}$$

$$\begin{aligned} 45384 &= (4! - 5 \times 3)!/8 + 4! \\ &= 4! + 8! + (3! + 5 - 4)! \\ &= 3! \times 4 + (4 + 5)!/8 \\ &= (85 - 4!) \times (4! + 3!!). \end{aligned}$$

$$\begin{aligned} 45387 &= (4 + 5) \times 3 + 8! + 7! \\ &= 7! + 8! + 3 \times (5 + 4) \\ &= 3 \times (4 + 5) + 7! + 8! \\ &= 8! + 7! + (5 + 4) \times 3. \end{aligned}$$

$$\begin{aligned} 45393 &= ((\sqrt{4} + 5)! + 3) \times 9 + 3! \\ &= 3! + 9 \times (3 + (5 + \sqrt{4})!) \\ &= 33 + (\sqrt{4} + 5)! \times 9 \\ &= 9 \times (5 + \sqrt{4})! + 33. \end{aligned}$$

$$\begin{aligned} 45397 &= \sqrt{4} + (5 + 3!! \times 9) \times 7 \\ &= 7! \times 9 + 35 + \sqrt{4} \\ &= -3! - \sqrt{4} + (5 + 7!) \times 9 \\ &= 9 \times (7! + 5) - 4!/3. \end{aligned}$$

$$\begin{aligned} 45679 &= 4 + (5 + 6!) \times 7 \times 9 \\ &= 9 \times 7 \times (6! + 5) + 4. \end{aligned}$$

$$\begin{aligned} 45837 &= 4 \times 5! + 8! - 3 + 7! \\ &= 7! - 3 + 8! + 5! \times 4 \\ &= -3 + 4 \times 5! + 7! + 8! \\ &= 8! + 7! + 5! \times 4 - 3. \end{aligned}$$

$$\begin{aligned} 45888 &= 4! \times (5! \times (8 + 8) - 8) \\ &= (-8 + (8 + 8) \times 5!) \times 4!. \end{aligned}$$

$$\begin{aligned} 45933 &= \sqrt{4} - 5 - (\sqrt{9})!! + 3!^{3!} \\ &= 3!^{3!} - (\sqrt{9})!! - 5 + \sqrt{4} \\ &= 3!^{3!} - \sqrt{4 + 5} - (\sqrt{9})!! \\ &= (\sqrt{9})!^{(\sqrt{5+4})!} - 3 - 3!!.. \end{aligned}$$

$$\begin{aligned} 45934 &= (\sqrt{4 + 5})!^{(\sqrt{9})!} - 3!! - \sqrt{4} \\ &= -\sqrt{4} - 3!! + (\sqrt{9})!^{(\sqrt{5+4})!} \\ &= -3!! - \sqrt{4} + (\sqrt{4 + 5})!^{(\sqrt{9})!} \\ &= (\sqrt{9})!^{(\sqrt{5+4})!} - \sqrt{4} - 3!!.. \end{aligned}$$

$$\begin{aligned} 45936 &= (45 - 9)^3 - 6! \\ &= 6^{3!} - (9 - \sqrt{5 + 4})! \\ &= (3!! - 4!) \times (5! - 6 \times 9) \\ &= (-9 \times 6 + 5!) \times (-4! + 3!!). \end{aligned}$$

$$\begin{aligned} 45939 &= (\sqrt{4 + 5})!^{(\sqrt{9})!} - 3!! + \sqrt{9} \\ &= (\sqrt{9})!^{3!} - (\sqrt{9})!! + 5 - \sqrt{4} \\ &= 3 - (\sqrt{4 + 5})!! + (\sqrt{9})!^{(\sqrt{9})!} \\ &= (\sqrt{9})!^{(\sqrt{9})!} + \sqrt{5 + 4} - 3!!.. \end{aligned}$$

$$\begin{aligned} 46078 &= -\sqrt{4} + (6! + 0 + 7!) \times 8 \\ &= 8 \times (7! + 0 + 6!) - \sqrt{4} \\ &= -\sqrt{04} + 6! + 7! + 8! \\ &= 8 \times (7! + 6!) - \sqrt{4} \times 0!. \end{aligned}$$

$$\begin{aligned} 46079 &= -\sqrt{4} + 6! + 0! + 7! \times 9 \\ &= 9 \times 7! + 0! + 6! - \sqrt{4} \\ &= -0!^4 + 6! + 7! \times 9 \\ &= 9 \times 7! + 6! - 4^0. \end{aligned}$$

$$\begin{aligned} 46080 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 0 \\ &= 0 + (\sqrt{8 + 0!})!! \times 64 \\ &= (00! + 4)! \times 6! - 8! \\ &= -8! + 6! \times (4 + 00!)!. \end{aligned}$$

$$\begin{aligned} 46081 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 1 \\ &= 1 + (\sqrt{8 + 0!})!! \times 64 \\ &= 0! + (1 + 4)! \times 6! - 8! \\ &= -8! + 6! \times (4 + 1!) + 0!. \end{aligned}$$

$$\begin{aligned} 46085 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 5 \\ &= 5 + (\sqrt{8 + 0!})!! \times 64 \\ &= 0! + 4 + 5! \times 6! - 8! \\ &= -8! + 6! \times 5! + 4 + 0!. \end{aligned}$$

$$\begin{aligned} 46086 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 6 \\ &= 6 + (\sqrt{8 + 0!})!! \times 64 \\ &= (0! + 4)! \times 6! + 6 - 8! \\ &= -8! + 6 + 6! \times (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 46087 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 7 \\ &= 7 + (\sqrt{8 + 0!})!! \times 64 \\ &= (0! + 4)! \times 6! + 7 - 8! \\ &= -8! + 7 + 6! \times (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 46088 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 8 \\ &= 8 + (\sqrt{8 + 0!})!! \times 64 \\ &= (0!^4 + 6! \times 8) \times 8 \\ &= 8 \times (8 \times 6! + 4^0). \end{aligned}$$

$$\begin{aligned} 46089 &= \sqrt{4^6} \times (\sqrt{0! + 8})!! + 9 \\ &= 9 + (\sqrt{8 + 0!})!! \times 64 \\ &= (0! + 4)! \times 6! - 8! + 9 \\ &= 9 - 8! + 6! \times (4 + 0!)!. \end{aligned}$$

$$\begin{aligned} 46137 &= \sqrt{4^6} \times (1 + 3!!) - 7 \\ &= -7 + (3!! + 1) \times 64 \\ &= (1 + 3!!) \times \sqrt{4^6} - 7 \\ &= -7 + 64 \times (3!! + 1). \end{aligned}$$

$$\begin{aligned} 46144 &= 4 \times (6! + 1) \times 4 \times 4 \\ &= 4 \times 4 \times (1 + 6!) \times 4 \\ &= (1 + (4!/4)!) \times \sqrt{4^6} \\ &= 64 \times ((4!/4)! + 1). \end{aligned}$$

$$\begin{aligned} 46288 &= (4! + 6! + 2) \times 8 + 8! \\ &= 8! + 8 \times (2 + 6! + 4!) \\ &= (2 + 4! + 6! \times 8) \times 8 \\ &= 8! + 8 \times (6! + 4! + 2). \end{aligned}$$

$$\begin{aligned} 46466 &= \sqrt{4} + 64 \times (6 + 6!) \\ &= (6 + 6!) \times \sqrt{4^6} + \sqrt{4} \\ &= \sqrt{4} + \sqrt{4^6} \times (6 + 6!) \\ &= (6 + 6!) \times 64 + \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 46536 &= -4 \times 6 \times 5 + 3!^6 \\ &= 6^{3!} - 5 \times 6 \times 4 \\ &= (3 - 4) \times 5! + 6^6 \\ &= 6^6 - (-5 + 4 + 3!)!. \end{aligned}$$

$$\begin{aligned} 46558 &= \sqrt{4} \times (-6 + 5^5 + 8!) \\ &= 8! + (5^5 - 6) \times \sqrt{4} \\ &= \sqrt{4} \times (5^5 - 6) + 8! \\ &= 8! + (-6 + 5^5) \times \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 46566 &= (-4! + 6) \times 5 + 6^6 \\ &= 6^6 + 5 \times (6 - 4!) \\ &= 4! - 5! + 6 + 6^6 \\ &= 6^6 + 6 - 5! + 4!. \end{aligned}$$

$$\begin{aligned} 46596 &= (-4 + 6^5 - (\sqrt{9})!) \times 6 \\ &= 6^{(\sqrt{9})!} - 56 - 4 \\ &= -4 - 56 + 6^{(\sqrt{9})!} \\ &= -(\sqrt{9})! + 6^6 - 54. \end{aligned}$$

$$\begin{aligned} 46624 &= -4! + 6^6 - 2 \times 4 \\ &= -4 \times 2 + 6^6 - 4! \\ &= -2 \times 4 \times 4 + 6^6 \\ &= 6^6 - 4 \times 4 \times 2. \end{aligned}$$

$$\begin{aligned} 46625 &= -4! + 6^6 - 2 - 5 \\ &= -5 - 2 + 6^6 - 4! \\ &= -2 - 4! - 5 + 6^6 \\ &= 6^6 - 5 - 4! - 2. \end{aligned}$$

$$\begin{aligned} 46626 &= -4 + 6^6 - 26 \\ &= \sqrt{6^2}^6 - 6 - 4! \\ &= -24 - 6 + 6^6 \\ &= 6^6 - 6 - (\sqrt{4^2})!. \end{aligned}$$

$$\begin{aligned} 46627 &= -\sqrt{4} + 6^6 - 27 \\ &= -7 + 2 + 6^6 - 4! \\ &= 2 - 4! + 6^6 - 7 \\ &= -7 + 6^6 - 4! + 2. \end{aligned}$$

$$\begin{aligned} 46629 &= \sqrt{4} + 6^6 - 29 \\ &= -\sqrt{\sqrt{9^2}} + 6^6 - 4! \\ &= -24 + 6^6 - \sqrt{9} \\ &= -\sqrt{\sqrt{9^6}} + 6^{4+2}. \end{aligned}$$

$$\begin{aligned} 46631 &= -4! + (6 \times 6)^3 - 1 \\ &= -1 + \sqrt{36^6} - 4! \\ &= -1^3 - 4! + 6^6 \\ &= 6^6 - 4 \times 3! - 1. \end{aligned}$$

$$\begin{aligned} 46632 &= -4 \times 6 + 6^{3 \times 2} \\ &= (2 \times 3)^6 - 6 \times 4 \\ &= (2 - 3) \times 4! + 6^6 \\ &= 6^6 - 4! \times (3 - 2). \end{aligned}$$

$$\begin{aligned} 46633 &= 4 + 6^6 - 3^3 \\ &= 3/3 + 6^6 - 4! \\ &= (-3 + 3)! - 4! + 6^6 \\ &= 6^6 - 4! + (-3 + 3)!. \end{aligned}$$

$$\begin{aligned} 46634 &= \sqrt{4} + 6^6 - 3! \times 4 \\ &= \sqrt{4} + \sqrt{36^6} - 4! \\ &= -3! - 4 \times 4 + 6^6 \\ &= 6^6 - 4 \times 4 - 3!. \end{aligned}$$

$$\begin{aligned} 46637 &= \sqrt{4} + 6^6 - 3 \times 7 \\ &= -7 \times 3 + 6^6 + \sqrt{4} \\ &= -3 \times 4 + 6^6 - 7 \\ &= -7 + 6^6 - 4 \times 3. \end{aligned}$$

$$\begin{aligned} 46638 &= -4 - 6 + 6^{3!} - 8 \\ &= -8 - 3! + 6^6 - 4 \\ &= -3! - 4 + 6^6 - 8 \\ &= -8 + 6^6 - 4 - 3!. \end{aligned}$$

$$\begin{aligned} 46639 &= -\sqrt{4} - 6 + 6^{3!} - 9 \\ &= -9 + 3!^6 - \sqrt{64} \\ &= -3! - \sqrt{4} + 6^6 - 9 \\ &= -9 + 6^6 - 4!/3. \end{aligned}$$

$$\begin{aligned} 46642 &= -2^4 + 6^6 + \sqrt{4} \\ &= \sqrt{4} + 6^6 - 4^2 \\ &= 2 - 4 \times 4 + 6^6 \\ &= 6^6 - 4 \times 4 + 2. \end{aligned}$$

$$\begin{aligned} 46644 &= -4 \times 4 + 6^6 + 4 \\ &= 4 + 6^6 - 4 \times 4 \\ &= -4 \times 4 + 4 + 6^6 \\ &= 6^6 - 4 \times 4 + 4. \end{aligned}$$

$$\begin{aligned} 46645 &= -4 + 6^6 - \sqrt{4} - 5 \\ &= -5 - \sqrt{4} + 6^6 - 4 \\ &= -4 \times 4 + 5 + 6^6 \\ &= 6^6 + 5 - 4 \times 4. \end{aligned}$$

$$\begin{aligned} 46646 &= \sqrt{4} + 6^6 - \sqrt{4} \times 6 \\ &= (\sqrt{\sqrt{6^4}})^6 - 6 - 4 \\ &= -4 \times 4 + 6 + 6^6 \\ &= 6 + 6^6 - 4 \times 4. \end{aligned}$$

$$\begin{aligned} 46647 &= \sqrt{4} + 6^6 - 4 - 7 \\ &= -7 + \sqrt{4} + 6^6 - 4 \\ &= -4 \times 4 + 6^6 + 7 \\ &= 7 + 6^6 - 4 \times 4. \end{aligned}$$

$$\begin{aligned} 46648 &= 4 \times 6^6 / 4 - 8 \\ &= -8 + 4 + 6^6 - 4 \\ &= 4 - 4 + 6^6 - 8 \\ &= 8 + 6^6 - 4 \times 4. \end{aligned}$$

$$\begin{aligned} 46649 &= 4 + 6^6 - \sqrt{4} - 9 \\ &= -9 - \sqrt{4} + 6^6 + 4 \\ &= -4 \times 4 + 6^6 + 9 \\ &= 9 + 6^6 - 4 \times 4. \end{aligned}$$

$$\begin{aligned} 46651 &= -4 + 6 \times 6^5 - 1 \\ &= -1^5 + 6^6 - 4 \\ &= 1^4 \times (5 + 6^6) \\ &= 6 \times 6^5 - 4 - 1. \end{aligned}$$

$$\begin{aligned} 46652 &= -4 + (6 \times 6)^{5-2} \\ &= (2 - 5 + 6)!^6 - 4 \\ &= 2 - (\sqrt{4 + 5})! + 6^6 \\ &= 6^6 - (\sqrt{5 + 4})! + 2. \end{aligned}$$

$$\begin{aligned} 46653 &= -4 + 6^6 - 5 + 3! \\ &= 3! - 5 + 6^6 - 4 \\ &= 3 \times (4 - 5) + 6^6 \\ &= 6^6 \times (5 - 4) - 3. \end{aligned}$$

$$\begin{aligned} 46654 &= \sqrt{4} + 6 \times 6^5 - 4 \\ &= ((-4 + 5) \times 6)^6 - \sqrt{4} \\ &= -\sqrt{-4/4 + 5} + 6^6 \\ &= 6^6 \times (5 - 4) - \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 46655 &= 4 + 6 \times 6^5 - 5 \\ &= 5/5 + 6^6 - \sqrt{4} \\ &= (4 - 5)^5 + 6^6 \\ &= 6 \times 6^5 - 5 + 4. \end{aligned}$$

$$\begin{aligned} 46656 &= ((4 \times 6 + 6)/5)^6 \\ &= 6^{5 \times 6 - 6 \times 4} \\ &= (-4 + 5)^6 \times 6^6 \\ &= 6^6 \times (6 - 5)^4. \end{aligned}$$

$$\begin{aligned} 46658 &= \sqrt{4} + 6^{(6+5-8)!} \\ &= (8 - 5)! + 6^6 - 4 \\ &= (\sqrt{4 + 5})!^6 - 6 + 8 \\ &= 8 - 6 + 6^{(\sqrt{5+4})!}. \end{aligned}$$

$$\begin{aligned} 46659 &= 4 + 6^6 + 5 - (\sqrt{9})! \\ &= (\sqrt{9})!^5 \times 6 + 6/\sqrt{4} \\ &= (-4 + 5) \times 6^6 + \sqrt{9} \\ &= (9 - 6)!^6 + \sqrt{5 + 4}. \end{aligned}$$

$$\begin{aligned} 46660 &= 4!/6 + 6^6 + 0 \\ &= 0 + 6 + 6^6 - \sqrt{4} \\ &= 04!/6 + 6^6 \\ &= 6 + 6^6 - \sqrt{4} \times 0!. \end{aligned}$$

$$\begin{aligned} 46661 &= 4!/6 + 6^6 + 1 \\ &= 1 + 6 + 6^6 - \sqrt{4} \\ &= -1^4 + 6 + 6^6 \\ &= 6^{\sqrt{6 \times 6}} + 4 + 1. \end{aligned}$$

$$\begin{aligned} 46662 &= 4!/6 + 6^6 + 2 \\ &= 2 + 6 + 6^6 - \sqrt{4} \\ &= 2 + 4!/6 + 6^6 \\ &= 6^6 + (6/(4 - 2))!. \end{aligned}$$

$$\begin{aligned} 46663 &= 4!/6 + 6^6 + 3 \\ &= 3 + 6 + 6^6 - \sqrt{4} \\ &= (3 + 4)!/6! + 6^6 \\ &= 6^6 + 6 + 4 - 3. \end{aligned}$$

$$\begin{aligned} 46664 &= 4!/6 + 6^6 + 4 \\ &= 4 + 6 + 6^6 - \sqrt{4} \\ &= 4 \times (-4 + 6) + 6^6 \\ &= 6^6 + (6 - 4) \times 4. \end{aligned}$$

$$\begin{aligned} 46665 &= 4!/6 + 6^6 + 5 \\ &= 5 + 6 + 6^6 - \sqrt{4} \\ &= -\sqrt{4} + 5 + 6 + 6^6 \\ &= 6 + 6^6 + \sqrt{5 + 4}. \end{aligned}$$

$$\begin{aligned} 46666 &= 4!/6 + 6 + 6^6 \\ &= 6^{\sqrt{6 \times 6}} + 6 + 4. \end{aligned}$$

$$\begin{aligned} 46667 &= 4! + 6^6 - 6 - 7 \\ &= -7 - 6 + 6^6 + 4!. \end{aligned}$$

$$\begin{aligned} 46668 &= 4!/6 + 6^6 + 8 \\ &= 8 + 6 + 6^6 - \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 46669 &= 4!/6 + 6^6 + 9 \\ &= \sqrt{9} + 6^6 + 6 + 4. \end{aligned}$$

$$\begin{aligned} 46673 &= 4 + 6^6 + 7 + 3! \\ &= 3 \times 7 + 6^6 - 4 \\ &= 3! + 4 + 6^6 + 7 \\ &= 7 + 6^6 + 4 + 3!. \end{aligned}$$

$$\begin{aligned} 46679 &= \sqrt{4} + 6^6 + 7 \times \sqrt{9} \\ &= \sqrt{9} \times 7 + 6^6 + \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 46692 &= 4! + 6^6 + (\sqrt{9})! \times 2 \\ &= (2 \times \sqrt{9})^6 + \sqrt{6^4} \\ &= (2 + 4) \times 6 + 6^{(\sqrt{9})!} \\ &= -(\sqrt{9})! + 6^6 + 42. \end{aligned}$$

$$\begin{aligned} 46694 &= \sqrt{4} + 6^6 + 9 \times 4 \\ &= 4 \times 9 + 6^6 + \sqrt{4} \\ &= 44 + 6^6 - (\sqrt{9})! \\ &= -(\sqrt{9})! + 6^6 + 44. \end{aligned}$$

$$\begin{aligned} 46695 &= 4! + 6^6 + \sqrt{9} \times 5 \\ &= 5 \times \sqrt{9} + 6^6 + 4! \\ &= 45 + 6^6 - (\sqrt{9})! \\ &= 9 + 6^6 + 5!/4. \end{aligned}$$

$$\begin{aligned} 46696 &= 46 + 6^{(\sqrt{9})!} - 6 \\ &= 6^{(\sqrt{9})!} + 6 \times 6 + 4 \\ &= 46 + 6^6 - (\sqrt{9})! \\ &= (\sqrt{9})!^6 + 6 \times 6 + 4. \end{aligned}$$

$$\begin{aligned} 46793 &= 4! \times 6 - 7 + (\sqrt{9})!^{3!} \\ &= 3!! \times 9 - 7 + (\sqrt{64})! \\ &= 3!! \times \sqrt{4^6} - 7 + (\sqrt{9})!! \\ &= (\sqrt{9})!! - 7 + 6! \times 4^3. \end{aligned}$$

$$\begin{aligned} 46796 &= -4 + 6! + 7! \times 9 + 6! \\ &= 6! + 9 \times 7! + 6! - 4 \\ &= -4 + 6! + 6! + 7! \times 9 \\ &= 9 \times 7! + 6! + 6! - 4. \end{aligned}$$

$$\begin{aligned} 46798 &= -\sqrt{4} + 6! \times (-7 + 9 \times 8) \\ &= (8 \times 9 - 7) \times 6! - \sqrt{4} \\ &= -\sqrt{4} + 6! \times (7 \times 8 + 9) \\ &= (9 \times 8 - 7) \times 6! - \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 46848 &= 4! \times 68 \times 4 + 8! \\ &= \sqrt{8^4} \times (8 + 6! + 4) \\ &= 4! \times 4 \times 68 + 8! \\ &= 8! + 8 \times (6! + 4 \times 4!). \end{aligned}$$

$$\begin{aligned} 47376 &= (-4 + 7)!! + 3!^7/6 \\ &= 6^7/3! + (7 - 4)!! \\ &= (\sqrt{(3 \times 4)^6} + 7!) \times 7 \\ &= 7!/7 + \sqrt{6^{4 \times 3}}. \end{aligned}$$

$$\begin{aligned} 47393 &= 4! - 7 + 3!! + (\sqrt{9})!^{3!} \\ &= 3!^{(\sqrt{9})!} + 3!! - 7 + 4! \\ &= 3!^{3!} + 4! - 7 + (\sqrt{9})!! \\ &= (\sqrt{9})!! - 7 + 4! + 3!^{3!}. \end{aligned}$$

$$\begin{aligned} 47496 &= 4 \times 7!/4! + (\sqrt{9})!^6 \\ &= 6 \times ((\sqrt{9})!! \times (4 + 7) - 4) \\ &= -4! + (4! + 6 \times 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 \times 6 + 4!) - 4!. \end{aligned}$$

$$\begin{aligned} 48864 &= (-4! + \sqrt{8^8}) \times 6 \times \sqrt{4} \\ &= \sqrt{4} \times 6 \times (\sqrt{8^8} - 4!) \\ &= 4!/\sqrt{4} \times (6! - 8) + 8! \\ &= 8! - (8 - 6!) \times 4!/\sqrt{4}. \end{aligned}$$

$$\begin{aligned} 48956 &= -4 + (8 + \sqrt{(\sqrt{9})!! \times 5}) \times 6! \\ &= 6! \times 5 + 9!/8 - 4 \\ &= -4 + 5! \times 68 \times (\sqrt{9})! \\ &= 9!/8 + 6! \times 5 - 4. \end{aligned}$$

$$\begin{aligned} 48966 &= 4 \times (8 + 9) \times 6! + 6 \\ &= 6 + 6! \times (9 \times 8 - 4) \\ &= \sqrt{4} \times 6 \times 6! + 8! + (\sqrt{9})! \\ &= (\sqrt{9})! + 8! + 6! \times \sqrt{6 \times 4!}. \end{aligned}$$

$$\begin{aligned} 48969 &= 4 \times (8 + 9) \times 6! + 9 \\ &= 9 + 6! \times (9 \times 8 - 4) \\ &= 4 \times 6! \times (8 + 9) + 9 \\ &= 9 + (9 + 8) \times 6! \times 4. \end{aligned}$$

$$\begin{aligned} 49152 &= 4! \times (\sqrt{9} + 1)^5 \times 2 \\ &= \sqrt{2^{(5-1)!} \times 9} \times 4 \\ &= 12 \times \sqrt{\sqrt{4^{(-5+9)!}}} \\ &= \sqrt{(\sqrt{9})!!/5} \times 4^{2+1!}. \end{aligned}$$

$$\begin{aligned} 49164 &= (4^{(\sqrt{9})!} + 1) \times 6 \times \sqrt{4} \\ &= (4^6 + 1) \times \sqrt{9} \times 4 \\ &= (1 + \sqrt{\sqrt{4^{4!}}}) \times (6 + (\sqrt{9})!!) \\ &= ((\sqrt{9})! + 6) \times (\sqrt{\sqrt{4^{4!}}} + 1). \end{aligned}$$

$$\begin{aligned} 49248 &= 4 \times \sqrt{9} \times (\sqrt{2^{4!}} + 8) \\ &= 8! + 4!/2 \times ((\sqrt{9})!! + 4!) \\ &= 2 \times (\sqrt{\sqrt{4^{4!}}} + 8) \times (\sqrt{9})! \\ &= \sqrt{(\sqrt{9})!^8} \times (-4 + 42). \end{aligned}$$

$$\begin{aligned} 49335 &= (-4! + 93) \times (3!! - 5) \\ &= (-5 + 3!!) \times (-3 + \sqrt{9} \times 4!) \\ &= (3 - 3 \times 4!) \times (5 - (\sqrt{9})!!) \\ &= ((\sqrt{9})!! - 5) \times (4! \times 3 - 3). \end{aligned}$$

$$\begin{aligned} 49536 &= 4 \times (\sqrt{9})! \times 5! + 3!^6 \\ &= 6^{3!} + 5! \times (\sqrt{9})! \times 4 \\ &= 3! \times (-4! + 5! \times 69) \\ &= (\sqrt{9})! \times 6^5 + 4 \times 3!!. \end{aligned}$$

$$\begin{aligned} 49678 &= -\sqrt{4} + (\sqrt{9})!! \times (6 + 7) + 8! \\ &= 8! + (7 + 6) \times (\sqrt{9})!! - \sqrt{4} \\ &= -\sqrt{4} + 6! \times (78 - 9) \\ &= 9!/8 + 7! - 6! - \sqrt{4}. \end{aligned}$$

$$\begin{aligned} 49680 &= (4 + 9) \times 6! + 8! + 0 \\ &= 0 + 8! + 6! \times (9 + 4) \\ &= (0!^4 + 68) \times (\sqrt{9})!! \\ &= 9!/8 + 6 \times (4 - 0!)!!. \end{aligned}$$

$$\begin{aligned} 50394 &= (5 \times (0! + 3)!)! - \sqrt{9} \times \sqrt{4} \\ &= \sqrt{4} \times (-\sqrt{9} + (3! + 0!)! \times 5) \\ &= (0! + 3)!! \times \sqrt{4} \times 5 - (\sqrt{9})! \\ &= -(\sqrt{9})! + 5 \times \sqrt{4} \times (3! + 0)!!. \end{aligned}$$

$$\begin{aligned} 50688 &= ((5 + 0!)^6 - 8!) \times 8 \\ &= 8 \times (-8! + 6^{0!+5}) \\ &= ((0! + 5)^6 - 8!) \times 8 \\ &= 8 \times (-8! + 6^{(5+0)!}). \end{aligned}$$

$$\begin{aligned} 50769 &= (-5! + 0! + 7! + 6!) \times 9 \\ &= 9 \times (6! + 7! + 0! - 5!) \\ &= (0! - 5! + 6! + 7!) \times 9 \\ &= 9 \times (7! + 6! - 5! + 0!). \end{aligned}$$

$$\begin{aligned} 50976 &= (5 + 0!)^{(\sqrt{9})!} + 7! - 6! \\ &= -6! + 7! + (\sqrt{9})!^{0!+5} \\ &= (0! + 5)^6 + 7! - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + 7! + 6^{(5+0)!}. \end{aligned}$$

$$\begin{aligned} 51696 &= (5 - 1)! \times (6! \times \sqrt{9} - 6) \\ &= 6^{(\sqrt{9})!} + (6 + 1^5)! \\ &= (1^5 + 6)! + 6^{(\sqrt{9})!} \\ &= 86 \times (6! - 5! + 1). \end{aligned}$$

$$\begin{aligned} 53658 &= (5! - 3) \times (-6 + 5!) + 8! \\ &= 8! + (5! - 6) \times (-3 + 5!) \\ &= (-3 + 5!) \times (5! - 6) + 8! \\ &= 8! - (6 - 5!) \times (5! - 3). \end{aligned}$$

$$\begin{aligned} 55296 &= (5!/5)^2 \times 96 \\ &= 6 \times 9 \times 2^{5+5} \\ &= 2^{5+5} \times 6 \times 9 \\ &= 96 \times (5!/5)^2. \end{aligned}$$

$$\begin{aligned} 55379 &= 5 + (5 + 3!) \times (7! - (\sqrt{9})!) \\ &= -(\sqrt{9})! + 7! \times (3! + 5) + 5 \\ &= (3! + 5) \times (-5 + 7!) - (\sqrt{9})! \\ &= -(\sqrt{9})! + (7! - 5) \times (5 + 3!). \end{aligned}$$

$$\begin{aligned} 55438 &= 5! \times 5! - \sqrt{4} + 3!! + 8! \\ &= 8! + 3!! - \sqrt{4} + 5! \times 5! \\ &= 3!! - \sqrt{4} + 5! \times 5! + 8! \\ &= 8! + 5! \times 5! - \sqrt{4} + 3!. \end{aligned}$$

$$\begin{aligned} 55495 &= (5 + (5 + \sqrt{4})!) \times ((\sqrt{9})! + 5) \\ &= (5 + (\sqrt{9})!) \times ((\sqrt{4} + 5)! + 5) \\ &= ((\sqrt{4} + 5)! + 5) \times (5 + (\sqrt{9})!) \\ &= ((\sqrt{9})! + 5) \times (5 + (5 + \sqrt{4})!). \end{aligned}$$

$$\begin{aligned} 55715 &= (5 \times 5 + 7!) \times \sqrt{1 + 5!} \\ &= \sqrt{5! + 1} \times (7! + 5 \times 5) \\ &= \sqrt{1 + 5!} \times (5 \times 5 + 7!) \\ &= (7! + 5 \times 5) \times \sqrt{5! + 1}. \end{aligned}$$

$$\begin{aligned} 56448 &= (5! + 6) \times 448 \\ &= 8! \times (4/4 + 6)/5 \\ &= ((4!/4)^5 - 6!) \times 8 \\ &= 8 \times (6^5 - (4!/4)!). \end{aligned}$$

$$\begin{aligned} 56544 &= (5! - 6) \times (5! + 4) \times 4 \\ &= 4 \times (4 + 5!) \times (-6 + 5!) \\ &= 4 \times (4 + 5!) \times (5! - 6) \\ &= (-6 + 5!) \times (5! + 4) \times 4. \end{aligned}$$

$$\begin{aligned} 57595 &= (5 + 75) \times (\sqrt{9})!! - 5 \\ &= -5 + (\sqrt{9})!! \times (5 + 75) \\ &= -5 + (5 + 5)!/(7 \times 9) \\ &= (\sqrt{9})!! \times (75 + 5) - 5. \end{aligned}$$

$$\begin{aligned} 57648 &= (-5 + 7 + 6!) \times 4! + 8! \\ &= 8! + 4! \times (6! + 7 - 5) \\ &= 4! \times (-5 + 6! + 7) + 8! \\ &= 8! + (7 + 6! - 5) \times 4!. \end{aligned}$$

$$\begin{aligned} 59049 &= (5 + \sqrt{9} + 0!)^4 \times 9 \\ &= (94 \times 0 + 9)^5 \\ &= (04 + 5)^{(\sqrt{9})!}/9 \\ &= 9^{9 \times 5 - 40}. \end{aligned}$$

$$\begin{aligned} 59319 &= (5 + \sqrt{9} + 31)^{\sqrt{9}} \\ &= 9 \times ((-1 + 3!!) \times 9 + 5!) \\ &= (1 + 35 + \sqrt{9})^{\sqrt{9}} \\ &= (-9 \times 9 + 5!)^3 \times 1. \end{aligned}$$

$$\begin{aligned} 59535 &= (5^{\sqrt{9}} + 5!) \times 3^5 \\ &= (5^3 + 5!) \times \sqrt{9^5} \\ &= 3^5 \times (5! + 5^{\sqrt{9}}) \\ &= \sqrt{9^5} \times (5! + 5^3). \end{aligned}$$

$$\begin{aligned} 59639 &= -5! + (9! - 6)/3! - (\sqrt{9})!! \\ &= (9! - 3!)/6 - (\sqrt{9})!! - 5! \\ &= -3!! - 5! + (-6 + 9!)/(\sqrt{9})! \\ &= (9! - (\sqrt{9})!)/6 - 5! - 3!. \end{aligned}$$

$$\begin{aligned} 59755 &= -5 + 9 \times 7! + 5! \times 5! \\ &= 5! \times 5! + 7! \times 9 - 5 \\ &= 5! \times 5! - 5 + 7! \times 9 \\ &= 9 \times 7! - 5 + 5! \times 5!. \end{aligned}$$

$$\begin{aligned} 59760 &= 5! + (9! - 7!)/6 + 0 \\ &= 0 - 6! + 7! \times \sqrt{(\sqrt{9})!!/5} \\ &= (0! + 5 + 6) \times 7! - (\sqrt{9})!! \\ &= (9! - 7!)/6 + 5! + 0. \end{aligned}$$

$$\begin{aligned} 59984 &= 5 + \sqrt{9^9} + 8! - 4! \\ &= -4! + 8! + \sqrt{9^9} + 5 \\ &= -4! + 5 + 8! + \sqrt{9^9} \\ &= \sqrt{9^9} + 8! + 5 - 4!. \end{aligned}$$

$$\begin{aligned} 59989 &= -9 + 8! + \sqrt{9^9} - 5 \\ &= -5 + \sqrt{9^9} + 8! - 9 \\ &= -5 + 8! - 9 + \sqrt{9^9} \\ &= \sqrt{9^9} - 9 + 8! + 5. \end{aligned}$$

$$\begin{aligned} 59998 &= -5 + (9/\sqrt{9})^9 + 8! \\ &= 8! + (9/\sqrt{9})^9 - 5 \\ &= -5 + 8! + \sqrt{\sqrt{9^{9+9}}} \\ &= \sqrt{\sqrt{9^{9+9}}} + 8! - 5. \end{aligned}$$

$$\begin{aligned} 60472 &= 6 \times (-0! + \sqrt{4} \times 7!) - 2 \\ &= -2 + (7! \times \sqrt{4} - 0!) \times 6 \\ &= 02 \times (-4 + 6 \times 7!) \\ &= (7! \times 6 - 4) \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 60473 &= -6 - 0! + 4 \times 7! \times 3 \\ &= 3 \times 7! \times 4 - 0! - 6 \\ &= (\sqrt{03^4})!/6 - 7 \\ &= 7 \times (6! \times 4 \times 3 - 0!). \end{aligned}$$

$$\begin{aligned} 60474 &= -6 + (-0! + 4) \times 7! \times 4 \\ &= 4 \times 7! \times (4 - 0!) - 6 \\ &= -(-0! + 4)! + \sqrt{4} \times 6 \times 7! \\ &= 7! \times \sqrt{6 \times 4!} - (4 - 0!). \end{aligned}$$

$$\begin{aligned} 60479 &= -(6 \times 0)! + 4 \times 7! \times \sqrt{9} \\ &= (9! - (7 - 4)!)/(0 + 6) \\ &= -0! + (-4 + 6 + 7)!/(\sqrt{9})! \\ &= 9!/(-7 + 6 + 4)! - 0!. \end{aligned}$$

$$\begin{aligned} 60487 &= (6 + 0!)! \times (4 + 8) + 7 \\ &= 7 + 84 \times (0 + 6!) \\ &= (0! + 4 \times 6!) \times 7 + 8! \\ &= 8! + 7 \times (6! \times 4 + 0!). \end{aligned}$$

$$\begin{aligned} 60499 &= (-6 + (0! + 4)! + 9!)/(\sqrt{9})! \\ &= 9!/(\sqrt{9})! + 4! + 0! - 6 \\ &= ((0! + 4)! - 6 + 9!)/(\sqrt{9})! \\ &= 9!/(\sqrt{9})! - 6 + 4! + 0!. \end{aligned}$$

$$\begin{aligned} 60599 &= (6! - 0! - 5 + 9!)/(\sqrt{9})! \\ &= (9! - (\sqrt{9})! + (5 + 0!)!)/6 \\ &= (05! - 6 + 9!)/(\sqrt{9})! \\ &= 9!/(9 - 6)! + 5! - 0!. \end{aligned}$$

$$\begin{aligned} 61199 &= 6! - 1 + 1 \times 9!/(\sqrt{9})! \\ &= 9!/(\sqrt{9})! - 1 + 1 \times 6! \\ &= -1 + 1 \times 6! + 9!/(\sqrt{9})! \\ &= (\sqrt{9})!! + 9!/6 - (-1 + 1)!.. \end{aligned}$$

$$\begin{aligned} 62496 &= 62 \times \sqrt{4} \times 9!/6! \\ &= 6^{(\sqrt{9})!} + (4! - 2) \times 6! \\ &= (-2 + 4!) \times 6! + 6^{(\sqrt{9})!} \\ &= (\sqrt{9})!^6 + 6! \times (4! - 2). \end{aligned}$$

$$\begin{aligned} 64776 &= (6! - 4 + 7! + 7!) \times 6 \\ &= (6! + 7! + 7! - 4) \times 6 \\ &= -4! - 6! + (6 + 7) \times 7! \\ &= 7! \times (7 + 6) - 6! - 4!. \end{aligned}$$

$$\begin{aligned} 65544 &= 6! \times (5! - 5 - 4!) + 4! \\ &= 4! + (-4! - 5 + 5!) \times 6! \\ &= 4! - (4! + 5 - 5!) \times 6! \\ &= 6! \times (5! - 5 - 4!) + 4!. \end{aligned}$$

$$\begin{aligned} 65664 &= 6! \times 5! - (6 + 6)^4 \\ &= (-4! \times 6 + 6!) \times (5! - 6) \\ &= (-4! + 5!) \times (-6 \times 6 + 6!) \\ &= (-6 \times 6 + 6!) \times (5! - 4!). \end{aligned}$$

$$\begin{aligned} 66339 &= (6 \times 6)^3 + 3^9 \\ &= (9 \times 3)^3 + 6^6 \\ &= 3^{3+6} + 6^{(\sqrt{9})!} \\ &= \sqrt{\sqrt{\sqrt{9^{6 \times 6}}} + 3!^{3!}}. \end{aligned}$$

$$\begin{aligned} 66784 &= 6^6 + (7! - 8) \times 4 \\ &= 4 \times (-8 + 7!) + 6^6 \\ &= (3!! + 4) \times 6 \times 6 + 8! \\ &= 8! + 6 \times 6 \times (4 + 3!!). \end{aligned}$$

$$\begin{aligned} 67199 &= (-6 + (7 + 1)! + 9!)/(\sqrt{9})! \\ &= (9! - (\sqrt{9})! + (1 + 7)!)!/6 \\ &= ((-1 + 6)! \times 7! - 9)/9 \\ &= (\sqrt{9})!!/9 \times 7!/6 - 1. \end{aligned}$$

$$\begin{aligned} 68644 &= (6 + \sqrt{8^6/4})^{\sqrt{4}} \\ &= (4^4 + 6)^{8-6} \\ &= (4^4 + 6)^{-6+8} \\ &= 8! + \sqrt{(6!/5 + 4!)^4}. \end{aligned}$$

$$\begin{aligned} 69144 &= 6! \times (\sqrt{9} + 1) \times 4! + 4! \\ &= 4! + (4 - 1)!! \times 96 \\ &= 1 \times 4 \times (4! \times 6! + (\sqrt{9})!) \\ &= ((\sqrt{9})! + 6! \times 4!) \times 4 \times 1. \end{aligned}$$

$$\begin{aligned} 69168 &= 6 \times ((\sqrt{9})!! \times 16 + 8) \\ &= 8 \times (6! + 1 + (\sqrt{9})!!) \times 6 \\ &= (16 \times 6! + 8) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times 8 \times (6! + 6! + 1). \end{aligned}$$

$$\begin{aligned} 69264 &= (6 + (\sqrt{9})!! \times (-2 + 6)) \times 4! \\ &= 4! \times ((6 - 2) \times (\sqrt{9})!! + 6) \\ &= 2^4 \times (6 \times 6! + 9) \\ &= (9 + 6 \times 6!) \times 4^2. \end{aligned}$$

$$\begin{aligned} 69777 &= -6! + (-9 + 7! + 7!) \times 7 \\ &= 7 \times (7! + 7! - 9) - 6! \\ &= -6! + 7 \times (7! + 7! - 9) \\ &= (-9 + 7! + 7!) \times 7 - 6!. \end{aligned}$$

$$\begin{aligned} 69837 &= 6! \times (\sqrt{9})!!/8 - 3 + 7! \\ &= 7! \times (3! + 8) - \sqrt{9} - 6! \\ &= -3!! + 6 \times 7! + 8! - \sqrt{9} \\ &= ((\sqrt{9})! + 8) \times 7! - 6! - 3. \end{aligned}$$

$$\begin{aligned} 69888 &= 6 \times ((\sqrt{9})!! + 8) \times (8 + 8) \\ &= (8 + 8) \times (8 + (\sqrt{9})!!) \times 6 \\ &= 6 \times (8 + 8) \times (8 + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! + 8) \times (8 + 8) \times 6. \end{aligned}$$

$$\begin{aligned} 69966 &= -6! + 99 \times (6! - 6) \\ &= (6! - 6) \times 99 - 6! \\ &= -6! + (-6 + 6!) \times 99 \\ &= 99 \times (6! - 6) - 6!. \end{aligned}$$

$$\begin{aligned} 69984 &= 6^9/(9 \times 8 \times \sqrt{4}) \\ &= (4 + 8) \times \sqrt{(9 + 9)^6} \\ &= 4! \times \sqrt{\sqrt{6^8} \times 9 \times 9} \\ &= 9 \times 9 \times 864. \end{aligned}$$

$$\begin{aligned} 69993 &= (6 + (\sqrt{9})!^{(\sqrt{9})!}) \times 9/3! \\ &= (3! + (\sqrt{9})!^{(\sqrt{9})!}) \times 9/6 \\ &= \sqrt{3! \times 6^9} \times 9 + 9 \\ &= 9 + 9 \times (\sqrt{9})!^6/3!. \end{aligned}$$

$$\begin{aligned} 70476 &= 7 \times \sqrt{04} \times (7! - 6) \\ &= (-6 + 7!) \times \sqrt{4} \times (0 + 7) \\ &= \sqrt{04} \times (-6 + 7!) \times 7 \\ &= 7 \times (7! - 6) \times \sqrt{4} \times 0!. \end{aligned}$$

$$\begin{aligned} 70574 &= 7 \times ((0/5)! + 7!) \times \sqrt{4} \\ &= \sqrt{4} \times (7! + (5 \times 0)!) \times 7 \\ &= (0! + (\sqrt{4} + 5)!) \times (7 + 7) \\ &= (7 + 7) \times ((5 + \sqrt{4})! + 0!). \end{aligned}$$

$$\begin{aligned} 73389 &= (7! - 3 - 3!!) \times (8 + 9) \\ &= -(9 + 8) \times (3!! + 3 - 7!!) \\ &= (-3!! - 3 + 7!) \times (8 + 9) \\ &= (9 + 8) \times (7! - 3 - 3!!). \end{aligned}$$

$$\begin{aligned} 73464 &= (-7! + 3!! \times 4!) \times 6 + 4! \\ &= 4! + 6 \times (4! \times 3!! - 7!) \\ &= 3! \times (4 + 4! \times 6! - 7!) \\ &= (-7! + 6! \times 4! + 4) \times 3!. \end{aligned}$$

$$\begin{aligned} 74431 &= 7^{\sqrt{4 \times 4}} \times 31 \\ &= (1 + 3!)^4 \times (4! + 7). \end{aligned}$$

$$\begin{aligned} 74688 &= (7! - 4! - 6!) \times 8 + 8! \\ &= 8! - 8 \times (6! + 4! - 7!) \\ &= (-4! - 6! + 7!) \times 8 + 8! \\ &= 8! + 8 \times (7! - 6! - 4!). \end{aligned}$$

$$\begin{aligned} 75480 &= -7! - 5! + \sqrt{4} \times 8! + 0 \\ &= 0 + 8! \times \sqrt{4} - 5! - 7! \\ &= (-0! + 4) \times 5 \times (7! - 8) \\ &= (-8 + 7!) \times 5 \times (4 - 0!). \end{aligned}$$

$$\begin{aligned} 75525 &= (7! - 5) \times (5 - 2) \times 5 \\ &= 5 \times (-2 + 5) \times (-5 + 7!!) \\ &= (-2 + 5) \times 5 \times (-5 + 7!!) \\ &= (7! - 5) \times 5 \times (5 - 2). \end{aligned}$$

$$\begin{aligned} 75543 &= (7! \times 5 + 5 - 4!) \times 3 \\ &= 3 \times (-4! + 5 + 5 \times 7!). \end{aligned}$$

$$\begin{aligned} 75565 &= (-7 + 5! \times (5! + 6)) \times 5 \\ &= 5 \times ((6 + 5!) \times 5! - 7) \\ &= 5 \times (5! \times 5! + 6! - 7) \\ &= (-7 + (6 + 5!) \times 5!) \times 5. \end{aligned}$$

$$\begin{aligned} 75579 &= (7! \times \sqrt{5 \times 5} - 7) \times \sqrt{9} \\ &= \sqrt{9} \times (7! \times \sqrt{5 \times 5} - 7) \\ &= (\sqrt{5 \times 5} \times 7! - 7) \times \sqrt{9} \\ &= \sqrt{9} \times (-7 + 7! \times \sqrt{5 \times 5}). \end{aligned}$$

$$\begin{aligned} 75595 &= 7! \times \sqrt{5 \times 5 \times 9} - 5 \\ &= -5 + (-9 + 5!/5) \times 7! \\ &= -\sqrt{5 \times 5} + 5 \times 7! \times \sqrt{9} \\ &= \sqrt{9} \times 7! \times 5 - \sqrt{5 \times 5}. \end{aligned}$$

$$\begin{aligned} 76356 &= -7! + (6! - 3!) \times (5! - 6) \\ &= (-6 + 5!) \times (-3! + 6!) - 7! \\ &= (-3! + 5!) \times (-6 + 6!) - 7! \\ &= -7! + (-6 + 6!) \times (5! - 3!). \end{aligned}$$

$$\begin{aligned} 76896 &= (7! + 6^{8-\sqrt{9}}) \times 6 \\ &= 6 \times (\sqrt{(\sqrt{9})^8} \times 6 + 7!) \\ &= 6^6 + (\sqrt{\sqrt{\sqrt{7^8}}!} \times (\sqrt{9})!) \\ &= (\sqrt{\sqrt{\sqrt{9^8}}!} \times 7! + 6^6). \end{aligned}$$

$$\begin{aligned} 77634 &= (-7 + 7! - 6!) \times (-3! + 4!) \\ &= (4! - 3!) \times (-6! - 7 + 7!) \\ &= (-3! + 4!) \times (-6! - 7 + 7!) \\ &= (7! - 7 - 6!) \times (4! - 3!). \end{aligned}$$

$$\begin{aligned} 80399 &= -((8! + 0!)) - (((3!)! - 9!)/\sqrt{9}) \\ &= (9! - (\sqrt{9})!!)/3 - 0! - 8! \\ &= -0! + (3! \times 8! - (\sqrt{9})!!)/\sqrt{9} \\ &= -(\sqrt{9})!! + (\sqrt{9})! \times 8!)/3 - 0!. \end{aligned}$$

$$\begin{aligned} 80518 &= 8! - 0! - 5! - 1 + 8! \\ &= (8! - 1 - (5! + 0!)) + 8! \\ &= -0! - 1 - 5! + 8! + 8! \\ &= 8! + 8! - 5! - 1 - 0!. \end{aligned}$$

$$\begin{aligned} 80622 &= (8! - 0! - 6 - 2) \times 2 \\ &= 2 \times ((2 + 6)! - 0! - 8) \\ &= -(0! + 2)! + 2 \times (-6 + 8!) \\ &= (8! - 6) \times 2 - (2 + 0!). \end{aligned}$$

$$\begin{aligned} 80623 &= (8! - 0! - 6) \times 2 - 3 \\ &= -3 + 2 \times (-6 - 0! + 8!) \\ &= 0! + 2 \times (-3 - 6 + 8!) \\ &= (8! - 6 - 3) \times 2 + 0!. \end{aligned}$$

$$\begin{aligned} 80624 &= (8! + 0 - 6) \times 2 - 4 \\ &= -4 + 2 \times (-6 + 0 + 8!) \\ &= 02 \times (-\sqrt{\sqrt{4^6}} + 8!) \\ &= (-8 + (\sqrt{64})!) \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 80628 &= 8! + 0 - 6 \times 2 + 8! \\ &= 8! - 2 \times 6 - 0 + 8! \\ &= -02 \times 6 + 8! + 8! \\ &= 8! + 8! - 6 \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 80629 &= (8! - (0/6)!) \times 2 - 9 \\ &= \sqrt{9} + 2 \times (-6 - 0! + 8!) \\ &= 0! + \sqrt{-2 + 6} \times (8! - (\sqrt{9})!) \\ &= (-(\sqrt{9})! + 8!) \times \sqrt{6 - 2} + 0!. \end{aligned}$$

$$\begin{aligned} 80634 &= (8! + 0 - 6 + 3) \times \sqrt{4} \\ &= \sqrt{4} \times (3 - 6 + 0 + 8!) \\ &= -03! + (-4 + 6) \times 8! \\ &= 8! \times (6 - 4) - 3! \times 0!. \end{aligned}$$

$$\begin{aligned} 80635 &= (5 + 3)! - 6 + 0! + 8! \\ &= 8! \times (0 + 6/3) - 5 \\ &= 0! + (3 + 5)! - 6 + 8! \\ &= 8! - 6 + (5 + 3)! + 0!. \end{aligned}$$

$$\begin{aligned} 80638 &= 8! + 0 - 6/3 + 8! \\ &= 8! + 3 - 6 + 0! + 8! \\ &= 0! + 3 - 6 + 8! + 8! \\ &= 8! + 8! - 6/3 \times 0!. \end{aligned}$$

$$\begin{aligned} 80639 &= (8! \times (0 + 6) - 3)/\sqrt{9} \\ &= 9!/(3 + 6) - 0! + 8! \\ &= -0! + 3 \times 6 \times 8!/9 \\ &= 9! \times 8/(6 \times 3!) - 0!. \end{aligned}$$

$$\begin{aligned} 80646 &= 8! \times (0 + 6 - 4) + 6 \\ &= 6 + (-4 + 6) \times (0 + 8!) \\ &= (\sqrt{\sqrt{04^6}}!) + 6 + 8! \\ &= 8! + 6 + (\sqrt{64})! \times 0!. \end{aligned}$$

$$\begin{aligned} 80647 &= 8! \times (0 + 6 - 4) + 7 \\ &= 7 + (-4 + 6) \times (0 + 8!) \\ &= (0! + 4! \times 6!) \times 7 - 8! \\ &= -8! + 7 \times (6! \times 4! + 0!). \end{aligned}$$

$$\begin{aligned} 80652 &= (8! + (0/6)! + 5) \times 2 \\ &= 2 \times (5 + (6 \times 0)! + 8!) \\ &= (-0! - 2 + 5) \times (6 + 8!) \\ &= (8! + 6) \times ((5 - 2) - 0!). \end{aligned}$$

$$\begin{aligned} 80664 &= (8! - 0 + 6 + 6) \times \sqrt{4} \\ &= \sqrt{4} \times (6!/60 + 8!) \\ &= \sqrt{04} \times (6 + 6 + 8!) \\ &= (8! + 6 + 6) \times \sqrt{4} \times 0!. \end{aligned}$$

$$\begin{aligned} 80688 &= 8! + 8 \times 6 + 0 + 8! \\ &= 8 \times (0 + 6) + (8! + 8!) \\ &= 06 \times 8 + 8! + 8! \\ &= 8! + 8! + 8 \times 6 \times 0!. \end{aligned}$$

$$\begin{aligned} 81359 &= 8! - 1 + 3!! + (5 + \sqrt{9})! \\ &= (\sqrt{9} + 5)! + 3!! - 1 + 8! \\ &= -1 + (-3 + 5) \times 8! + (\sqrt{9})!! \\ &= (9! + 8!)/5 + 3!! - 1. \end{aligned}$$

$$\begin{aligned} 81360 &= 8! \times (-1 + 3) + 6! + 0 \\ &= 0 + 6! + (3 - 1) \times 8! \\ &= (0! + 1 + 3!)! + 6! + 8! \\ &= 8! + 6! + (3! + 1 + 0!)!. \end{aligned}$$

$$\begin{aligned} 81384 &= 8! + (1 \times 3)!! + 8! + 4! \\ &= 4! + 8! + 3!! + 1 \times 8! \\ &= 1 \times 3!! + 4! + 8! + 8! \\ &= 8! + 8! + 4! \times 31. \end{aligned}$$

$$\begin{aligned} 82944 &= 8/2 \times (\sqrt{9} \times 4)^4 \\ &= 4^4 \times 9 + 2 \times 8! \\ &= 2 \times 4! \times 4! \times 8 \times 9 \\ &= (9 \times 8 \times 4)^{4/2}. \end{aligned}$$

$$\begin{aligned} 83157 &= -8 + (3! + 1)! + 5^7 \\ &= 7! + 5^{1+3!} - 8 \\ &= (1 + 3!)! + 5^7 - 8 \\ &= -8 + 7! + 5^{3!+1}. \end{aligned}$$

$$\begin{aligned} 83232 &= 2 \times (\sqrt{3!^{2^3}} + 8!) \\ &= (8! + \sqrt{3!^{2^3}}) \times 2 \\ &= 2 \times ((2^3)! + \sqrt{3!^8}) \\ &= (8! + 3!^{3!-2}) \times 2. \end{aligned}$$

$$\begin{aligned} 83424 &= (8! + (3!! - 4!) \times 2) \times \sqrt{4} \\ &= (\sqrt{4}) \times (2 \times (-4! + 3!!) + 8!) \\ &= 2 \times ((3!! - 4!) \times \sqrt{4} + 8!) \\ &= (8! - \sqrt{4} \times (4! - 3!!)) \times 2. \end{aligned}$$

$$\begin{aligned} 83534 &= (-4! + 3!!) \times 5! + 3! + 8 \\ &= 8 + 3! + 5! \times (3!! - 4!) \\ &= 3! + 3!! \times (-4 + 5!) + 8 \\ &= 8 + (5! - 4) \times 3!! + 3!. \end{aligned}$$

$$\begin{aligned} 84960 &= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 0 \\ &= 0 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8! \\ &= ((0! + 4)! + 6 - 8) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (-8 + 6 + (4 + 0!)!). \end{aligned}$$

$$\begin{aligned} 84965 &= 8! \times \sqrt{4} + (\sqrt{9})! \times 6! + 5 \\ &= 5 + 6 \times (\sqrt{9})!! + \sqrt{4} \times 8! \\ &= (-\sqrt{4} + 5!) \times 6! + 8 - \sqrt{9} \\ &= -\sqrt{9} + 8 + 6! \times (5! - \sqrt{4}). \end{aligned}$$

$$\begin{aligned} 85568 &= 8 + 5! + 5! \times (6! - 8) \\ &= (-8 + 6!) \times 5! + 5! + 8 \\ &= 5! + 5! \times (6! - 8) + 8 \\ &= 8 + (-8 + 6!) \times 5! + 5!. \end{aligned}$$

$$\begin{aligned} 85664 &= 8 + 5! \times (6! - 6) - 4! \\ &= -4! + (6! - 6) \times 5! + 8 \\ &= -4! + 5! \times (-6 + 6!) + 8 \\ &= 8 + (-6 + 6!) \times 5! - 4!. \end{aligned}$$

$$\begin{aligned} 85666 &= -8 + 5! \times (6! - 6) - 6 \\ &= -6 + (6! - 6) \times 5! - 8 \\ &= 5! \times (-6 + 6!) - 6 - 8 \\ &= -8 - 6 + (-6 + 6!) \times 5!. \end{aligned}$$

$$\begin{aligned} 85669 &= -8 + 5! \times (6! - 6) - \sqrt{9} \\ &= -\sqrt{9} + (6! - 6) \times 5! - 8 \\ &= 5! \times (-6 + 6!) - 8 - \sqrt{9} \\ &= -\sqrt{9} - 8 + (-6 + 6!) \times 5!. \end{aligned}$$

$$\begin{aligned} 85679 &= 8! + 5 - 6 + 7! \times 9 \\ &= 9 \times 7! - 6 + 5 + 8! \\ &= 5 - 6 + 7! \times (8 + 9) \\ &= (9 + 8) \times 7! - 6 + 5. \end{aligned}$$

$$\begin{aligned} 85795 &= 8! + 5! + 7! \times 9 - 5 \\ &= 5! + 9 \times 7! - 5 + 8! \\ &= 5! - 5 + 7! \times (8 + 9) \\ &= (9 + 8) \times 7! - 5 + 5!. \end{aligned}$$

$$\begin{aligned} 86151 &= (-8 + 6!) \times (1 + 5!) - 1 \\ &= -1 + (5! + 1) \times (6! - 8) \\ &= -1 + (1 + 5!) \times (6! - 8) \\ &= (-8 + 6!) \times (5! + 1) - 1. \end{aligned}$$

$$\begin{aligned} 86152 &= (-8 + 6!) \times (-1 + 5! + 2) \\ &= ((\sqrt{25})! + 1) \times (6! - 8) \\ &= (-1 + 2 + 5!) \times (6! - 8) \\ &= (-8 + 6!) \times (5! + 2 - 1). \end{aligned}$$

$$\begin{aligned} 86256 &= 8! - 6! + (-2 + 5!)^6 \\ &= 6^{5-2}! - 6! + 8! \\ &= -(-2 + 5)!! + 6^6 + 8! \\ &= 8! + 6^6 - (5 - 2)!!. \end{aligned}$$

$$\begin{aligned} 86351 &= -8 \times 6 + 3!! \times 5! - 1 \\ &= -1 + 5! \times 3!! - 6 \times 8 \\ &= -1 + 3!! \times 5! - 6 \times 8 \\ &= -8 \times 6 + 5! \times 3!! - 1. \end{aligned}$$

$$\begin{aligned} 86352 &= -8 \times 6 + 3! \times 5!^2 \\ &= (\sqrt{25})! \times 3!! - 6 \times 8 \\ &= (2 \times 3)! \times 5! - 6 \times 8 \\ &= -8 \times 6 + 5! \times (3 \times 2)!. \end{aligned}$$

$$\begin{aligned} 86356 &= -8 - 6 \times 3! + 5! \times 6! \\ &= 6! \times 5! - 36 - 8 \\ &= 3!! \times 5! - 6 \times 6 - 8 \\ &= -8 - 6 \times 6 + 5! \times 3!!.. \end{aligned}$$

$$\begin{aligned} 86384 &= 8 + 6! \times (-3 + 8)! - 4! \\ &= -4! + (8 - 3)! \times 6! + 8 \\ &= (3 + \sqrt{4})! \times 6! - 8 - 8 \\ &= -8 - 8 + 6! \times (\sqrt{4} + 3)!. \end{aligned}$$

$$\begin{aligned} 86391 &= -8 + 6!/3! \times (\sqrt{9})!! - 1 \\ &= -1 + (\sqrt{9})!!/3! \times 6! - 8 \\ &= (-1 + 3)!! \times (\sqrt{\sqrt{68}})!! - 9 \\ &= -9!/8! + 6! \times (3! - 1)!. \end{aligned}$$

$$\begin{aligned} 86392 &= -8 + 6! \times (\sqrt{3 \times 9 - 2})! \\ &= (2 + 9/3)! \times 6! - 8 \\ &= -2^3 + 6! \times (8 - \sqrt{9})! \\ &= (-\sqrt{9} + 8)! \times 6! - 3! - 2. \end{aligned}$$

$$\begin{aligned} 86394 &= -8 + 6!/3! \times (\sqrt{9})!! + \sqrt{4} \\ &= 4^{\sqrt{9}} \times 3!! - 6 + 8! \\ &= (3 + \sqrt{4})! \times (\sqrt{\sqrt{\sqrt{68}}})! - (\sqrt{9})! \\ &= -(\sqrt{9})! + 8! + 6! \times 4^3. \end{aligned}$$

$$\begin{aligned} 86395 &= 8 \times 6! \times (3! + 9) - 5 \\ &= -5 + (9 + 3!) \times 6! \times 8 \\ &= 3!! \times 5! - 6 - 8 + 9 \\ &= 9 - 8 - 6 + 5! \times 3!!.. \end{aligned}$$

$$\begin{aligned} 86397 &= 8! + 6! - 3 + 9 \times 7! \\ &= 7! \times 9 + (-3 + 6!) + 8! \\ &= -3 + 6! + 7! \times (8 + 9) \\ &= (9 + 8) \times 7! + 6! - 3. \end{aligned}$$

$$\begin{aligned} 86399 &= 8 + 6!/3! \times (\sqrt{9})!! - 9 \\ &= -9 + (\sqrt{9})!!/3! \times 6! + 8 \\ &= (3!!^{-6+8} - (\sqrt{9})!)/(\sqrt{9})! \\ &= -(\sqrt{9})! + (\sqrt{9})!!^{8-6}/3!. \end{aligned}$$

$$\begin{aligned} 86544 &= (8 + 6! \times 5 - \sqrt{4}) \times 4! \\ &= 4! \times (-\sqrt{4} + 5 \times 6! + 8). \end{aligned}$$

$$\begin{aligned} 86584 &= -8 + (6! \times 5 + 8) \times 4! \\ &= 4! \times (8 + 5 \times 6!) - 8 \\ &= 4! \times (5 \times 6! + 8) - 8 \\ &= -8 + (8 + 6! \times 5) \times 4!. \end{aligned}$$

$$\begin{aligned} 86632 &= -8 + 6!/6 \times (3!! + 2) \\ &= (2 + 3!!) \times 6!/6 - 8. \end{aligned}$$

$$\begin{aligned} 86946 &= 8! + 6^{(\sqrt{9})!} - 4! - 6 \\ &= -6 - 4! + (\sqrt{9})!^6 + 8! \\ &= -4! + 6^6 + 8! - (\sqrt{9})! \\ &= -(\sqrt{9})! + 8! + 6^6 - 4!. \end{aligned}$$

$$\begin{aligned} 86965 &= 8! - 6 + (\sqrt{9})!^6 - 5 \\ &= -5 - 6 + (\sqrt{9})!^6 + 8! \\ &= -5 + 6^6 + 8! - (\sqrt{9})! \\ &= -(\sqrt{9})! + 8! + 6^6 - 5. \end{aligned}$$

$$\begin{aligned} 86976 &= 8! + \sqrt{(6^{9-7})^6} \\ &= 6^7/(9 - 6)! + 8! \\ &= 6^6 + (7 - 8 + 9)! \\ &= (9 - 8 + 7)! + 6^6. \end{aligned}$$

$$\begin{aligned} 86994 &= 8! + 6^{(\sqrt{9})!} + 9 \times \sqrt{4} \\ &= \sqrt{4} \times 9 + (\sqrt{9})!^6 + 8! \\ &= 4! - 6 + 8! + (\sqrt{9})!^{(\sqrt{9})!} \\ &= (\sqrt{9})!^{(\sqrt{9})!} + 8! - 6 + 4!. \end{aligned}$$

$$\begin{aligned} 87696 &= 8 \times 7! + 6! + (\sqrt{9})!^6 \\ &= 6! + (\sqrt{9})!^6 + 7! \times 8 \\ &= 6^6 + 7! \times 8 + (\sqrt{9})!! \\ &= (\sqrt{9})!! + 8 \times 7! + 6^6. \end{aligned}$$

$$\begin{aligned} 88536 &= (\sqrt{8+8} + 5!) \times (3!! - 6) \\ &= (6! - 3!) \times (5! + \sqrt{8+8}) \\ &= (3 + 5!) \times 6! - (\sqrt{8+8})! \\ &= -(\sqrt{8+8})! + 6! \times (5! + 3). \end{aligned}$$

$$\begin{aligned} 88832 &= (8! + 8 \times 8^3) \times 2 \\ &= \sqrt{-2 + 3!} \times (8! + \sqrt{8^8}). \end{aligned}$$

$$\begin{aligned} 89995 &= (8 - \sqrt{9})^{\sqrt{9}} \times (\sqrt{9})!! - 5 \\ &= 5^{\sqrt{9}} \times (\sqrt{9})!! + \sqrt{9} - 8 \\ &= -5 + (8 - \sqrt{9})^{\sqrt{9}} \times (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (9! + 9!)/8 - 5. \end{aligned}$$

$$\begin{aligned} 90693 &= ((\sqrt{9})! \times (0! + 6)! - 9) \times 3 \\ &= 3 \times ((\sqrt{9})! \times (6 + 0!)! - 9) \\ &= ((0! + 3!)! \times 6 - 9) \times \sqrt{9} \\ &= \sqrt{9} \times (-9 + 6 \times (3! + 0!)!). \end{aligned}$$

$$\begin{aligned} 90702 &= 9 \times ((0 + 7)! - 0!) \times 2 \\ &= 2 \times ((0 + 7)! - 0!) \times 9 \\ &= (-0! - 0! + 2 \times 7!) \times 9 \\ &= 9 \times (7! \times 2 - 0! - 0!). \end{aligned}$$

$$\begin{aligned} 90711 &= 9 \times (-0! + 7! \times (1 + 1)) \\ &= ((1 + 1) \times 7! - 0!) \times 9 \\ &= (-0! + (1 + 1) \times 7!) \times 9 \\ &= 9 \times (7! \times (1 + 1) - 0!). \end{aligned}$$

$$\begin{aligned} 90714 &= -(\sqrt{9})! + (0! + 7 + 1)!/4 \\ &= ((4 - 1) \times 7! - 0!) \times (\sqrt{9})! \\ &= (-0! + (-1 + 4) \times 7!) \times (\sqrt{9})! \\ &= (\sqrt{9})! \times (7! \times (4 - 1) - 0!). \end{aligned}$$

$$\begin{aligned} 90717 &= \sqrt{9} \times (-0! + 7! \times (-1 + 7)) \\ &= 7! \times (17 + 0!) - \sqrt{9} \\ &= (0! + 17) \times 7! - \sqrt{9} \\ &= \sqrt{9} \times (7! \times (7 - 1) - 0!). \end{aligned}$$

$$\begin{aligned} 90720 &= 9 \times (0 + 7)! \times 2 + 0 \\ &= 0 + 2 \times 7! \times (0 + 9) \\ &= (0 \times 0 + 2) \times 7! \times 9 \\ &= 9!/(7 - 2 \times 0! - 0!). \end{aligned}$$

$$\begin{aligned} 90721 &= 9 \times (0 + 7)! \times 2 + 1 \\ &= 1 + 2 \times 7! \times (0 + 9) \\ &= 0 + 1 + 2 \times 7! \times 9 \\ &= 9!/(7 - 2 - 1) + 0!. \end{aligned}$$

$$\begin{aligned} 90722 &= 9 \times (0 + 7)! \times 2 + 2 \\ &= 2 + 2 \times 7! \times (0 + 9) \\ &= 0 + 2 + 2 \times 7! \times 9 \\ &= 9 \times 7! \times 2 + 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 90723 &= 9 \times (0 + 7)! \times 2 + 3 \\ &= 3 + 2 \times 7! \times (0 + 9) \\ &= (0! + 2 \times 3 \times 7!) \times \sqrt{9} \\ &= 9!/(7 - 3) + 2 + 0!. \end{aligned}$$

$$\begin{aligned} 90724 &= 9 \times (0 + 7)! \times 2 + 4 \\ &= 4 + 2 \times 7! \times (0 + 9) \\ &= 02 \times (\sqrt{4} + 7! \times 9) \\ &= (9 \times 7! + \sqrt{4}) \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 90726 &= 9 \times (0 + 7)! \times 2 + 6 \\ &= 6 + 2 \times 7! \times (0 + 9) \\ &= (02 + 6 \times 7!) \times \sqrt{9} \\ &= \sqrt{9} \times (7! \times 6 + 2 \times 0!). \end{aligned}$$

$$\begin{aligned} 90728 &= 9 \times (0 + 7)! \times 2 + 8 \\ &= 8 + 2 \times 7! \times (0 + 9) \\ &= -0! + 2 \times (7! + 8!) + 9 \\ &= 9 + (8! + 7!) \times 2 - 0!. \end{aligned}$$

$$\begin{aligned} 90729 &= 9 + 2 \times 7! \times (0 + 9) \\ &= 9 \times (0 + 7)! \times 2 + 9 \\ &= 02 \times 7! \times 9 + 9 \\ &= 9 + 9 \times 7! \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 90732 &= (9 \times (0 + 7)! + 3!) \times 2 \\ &= 2 \times (3! + 7! \times (-0 + 9)) \\ &= 02 \times (3! + 7! \times 9) \\ &= (9 \times 7! + 3!) \times 2 \times 0!. \end{aligned}$$

$$\begin{aligned} 90735 &= \sqrt{9} \times ((0 + 7)! \times 3! + 5) \\ &= (5 + 3! \times 7!) \times \sqrt{09} \\ &= 03 \times (5 + 7! \times (\sqrt{9})!) \\ &= ((\sqrt{9})! \times 7! + 5) \times 3 \times 0!. \end{aligned}$$

$$\begin{aligned} 90738 &= 9 \times (0! + 7!) \times (-3! + 8) \\ &= (8 - 3!) \times (7! + 0!) \times 9 \\ &= (-0! + 3) \times (7! + 8! + 9) \\ &= (9 + 8! + 7!) \times (3 - 0!). \end{aligned}$$

$$\begin{aligned} 90744 &= 9!/(0/7 + 4) + 4! \\ &= 4! + \sqrt{4} \times 7! \times (0 + 9) \\ &= 04! + \sqrt{4} \times 7! \times 9 \\ &= 9 \times 7! \times \sqrt{4} + (4 - 0)!. \end{aligned}$$

$$\begin{aligned} 90747 &= 9 \times (-0! + 7! + 4 + 7!) \\ &= (7! + 4 + 7! - 0!) \times 9 \\ &= (-0! + 4 + 7! + 7!) \times 9 \\ &= 9 \times (7! + 7! + 4 - 0!). \end{aligned}$$

$$\begin{aligned} 90774 &= 9 \times (-0! + 7 + 7! \times \sqrt{4}) \\ &= (\sqrt{4} \times 7! + (7 - 0!)) \times 9 \\ &= ((-0! + 4)! + 7! + 7!) \times 9 \\ &= 9 \times (7! + 7! + (4 - 0!)!). \end{aligned}$$

$$\begin{aligned} 90792 &= 9 \times (0! + 7! + \sqrt{9}) \times 2 \\ &= 2 \times (\sqrt{9} + 7! + 0!) \times 9 \\ &= (-0! + 2 \times 7! + 9) \times 9 \\ &= 9 \times (9 + 7! \times 2 - 0!). \end{aligned}$$

$$\begin{aligned} 91573 &= ((\sqrt{9})!! + 1) \times (5! + 7) + 3! \\ &= 3! + (7 + 5!) \times (1 + (\sqrt{9})!!) \\ &= (1 + 3!!) \times (5! + 7) + (\sqrt{9})! \\ &= (\sqrt{9})! + (7 + 5!) \times (3!! + 1). \end{aligned}$$

$$\begin{aligned} 92592 &= -(\sqrt{9})!! + (-2 + 5)!^{(\sqrt{9})!} \times 2 \\ &= 2 \times (\sqrt{9})!^{5-2}! - (\sqrt{9})!! \\ &= 2 \times (-2 + 5)!^{(\sqrt{9})!} - (\sqrt{9})!! \\ &= -(\sqrt{9})!! + (\sqrt{9})!^{5-2}! \times 2. \end{aligned}$$

$$\begin{aligned} 93264 &= ((\sqrt{9})!^{3!} - (-2 + 6)!) \times \sqrt{4} \\ &= \sqrt{4} \times (-(6 - 2)! + 3!^{(\sqrt{9})!}) \\ &= 2 \times (-3! \times 4 + 6^{(\sqrt{9})!}) \\ &= ((\sqrt{9})!^6 - 4!) \times \sqrt{3! - 2}. \end{aligned}$$

$$\begin{aligned} 93294 &= ((\sqrt{9})!^{3 \times 2} - 9) \times \sqrt{4} \\ &= \sqrt{4} \times ((\sqrt{9})!^{2 \times 3} - 9) \\ &= 2 \times (3!^{(\sqrt{4} \times 9)} - 9) \\ &= (-9 + (9 \times 4)^3) \times 2. \end{aligned}$$

$$\begin{aligned} 93302 &= ((\sqrt{9})!^{3!} - (3! - 0!)) \times 2 \\ &= 2 \times (0! - (3! - (3!^{(\sqrt{9})!}))) \\ &= -0! + 2 \times 3!^{3!} - 9 \\ &= -9 + 3!^{3!} \times 2 - 0!. \end{aligned}$$

$$\begin{aligned} 93303 &= -9 + 3!^{3!+0!}/3 \\ &= (3 - 0!) \times 3!^{3!} - 9 \\ &= (-0! + 3) \times 3!^{3!} - 9 \\ &= -9 + 3!^{3!} \times (3 - 0!). \end{aligned}$$

$$\begin{aligned} 93304 &= ((\sqrt{9})!^{3!} - 3 - 0!) \times \sqrt{4} \\ &= -\sqrt{4} \times (0! + 3 - 3!^{(\sqrt{9})!}) \\ &= (-0! + 3!^{3!}) \times \sqrt{4} - (\sqrt{9})! \\ &= -(\sqrt{9})! + \sqrt{4} \times (3!^{3!} - 0!). \end{aligned}$$

$$\begin{aligned} 93306 &= ((\sqrt{9})!^{3!}/3 - 0!) \times 6 \\ &= 6^{0!+3!}/3 - (\sqrt{9})! \\ &= \sqrt{0!+3} \times 3!^6 - (\sqrt{9})! \\ &= (-\sqrt{9} + 6^{3!}) \times \sqrt{3+0!}. \end{aligned}$$

$$\begin{aligned} 93309 &= (-9 + 3!^{3!+0!})/\sqrt{9} \\ &= (\sqrt{9} - 0!) \times 3!^{3!} - \sqrt{9} \\ &= \sqrt{0!+3} \times 3!^{(\sqrt{9})!} - \sqrt{9} \\ &= -\sqrt{9} + (\sqrt{9})!^{3!} \times \sqrt{3+0!}. \end{aligned}$$

$$\begin{aligned} 93311 &= (\sqrt{9})!^{3!} \times (3 - 1) - 1 \\ &= -1 + (-1 + 3) \times 3!^{(\sqrt{9})!}. \end{aligned}$$

$$\begin{aligned} 93312 &= (9 - 3)^{3!} \times (1 \times 2) \\ &= 2 \times 1 \times 3!^{-3+9} \\ &= 12^3 \times 3! \times 9 \\ &= (9 - 3)^{3!} \times 2 \times 1. \end{aligned}$$

$$\begin{aligned} 93313 &= (\sqrt{9} + 3!^{3!+1})/3 \\ &= (3!^{1+3!} + 3)/\sqrt{9} \\ &= 1 + 3!/3 \times 3!^{(\sqrt{9})!} \\ &= (\sqrt{9})!^{3!} \times 3!/3 + 1. \end{aligned}$$

$$\begin{aligned} 93314 &= ((9 - 3)^{3!} + 1) \times \sqrt{4} \\ &= \sqrt{4} \times (1 + 3!^{-3+9}) \\ &= (1 + 3!^{3!}) \times \sqrt{4!/(\sqrt{9})!} \\ &= ((\sqrt{9})! - 4) \times (3!^{3!} + 1). \end{aligned}$$

$$\begin{aligned} 93321 &= 9 + 3!^{3!} \times 2 \times 1 \\ &= 1 \times 2 \times 3!^{3!} + 9. \end{aligned}$$

$$\begin{aligned} 93322 &= ((\sqrt{9})!^{3!} + 3 + 2) \times 2 \\ &= 2 \times (2 + 3 + 3!^{(\sqrt{9})!}). \end{aligned}$$

$$\begin{aligned} 93324 &= (\sqrt{9} + ((3!^{3!})/2)) \times 4 \\ &= \sqrt{4} \times (2 \times 3 + 3!^{(\sqrt{9})!}) \\ &= 2 \times (3!^{3!} + \sqrt{4 \times 9}) \\ &= ((9 \times 4)^3 + 3!) \times 2. \end{aligned}$$

$$\begin{aligned} 93325 &= (9 + 3!^{3!}) \times 2 - 5 \\ &= -5 + 2 \times (3!^{3!} + 9) \\ &= 2 \times (3!^{3!} + 5) + \sqrt{9} \\ &= \sqrt{9} + (5 + 3!^{3!}) \times 2. \end{aligned}$$

$$\begin{aligned} 93342 &= (-9 + 3!^{3!} + 4!) \times 2 \\ &= 2 \times (4! + 3!^{3!} - 9) \\ &= 2 \times (3!^{3!} + 4! - 9) \\ &= (-9 + 4! + 3!^{3!}) \times 2. \end{aligned}$$

$$\begin{aligned} 93432 &= (\sqrt{9})!^{3!} \times \sqrt{4} + (3 + 2)! \\ &= (2 + 3)! + \sqrt{4} \times 3!^{(\sqrt{9})!} \\ &= 2 \times 3!^{3!} + (-4 + 9)! \\ &= (9 - 4)! + 3!^{3!} \times 2. \end{aligned}$$

$$\begin{aligned} 93435 &= (\sqrt{9})!^{3!} \times \sqrt{4} + 3 + 5! \\ &= 5! + 3 + \sqrt{4} \times 3!^{(\sqrt{9})!} \\ &= 3!^{3!} \times \sqrt{4} + 5! + \sqrt{9} \\ &= \sqrt{9} + 5! + \sqrt{4} \times 3!^{3!}. \end{aligned}$$

$$\begin{aligned} 93546 &= ((\sqrt{9})!^{3!} + 5!) \times \sqrt{4} - 6 \\ &= -6 + \sqrt{4} \times (5! + 3!^{(\sqrt{9})!}) \\ &= (-34 + 5^6) \times (\sqrt{9})! \\ &= ((\sqrt{9})!^6 + 5!) \times \sqrt{4} - 3!. \end{aligned}$$

$$\begin{aligned} 93549 &= ((\sqrt{9})!^{3!} + 5!) \times \sqrt{4} - \sqrt{9} \\ &= -\sqrt{9} + \sqrt{4} \times (5! + 3!^{(\sqrt{9})!}) \\ &= -3 + \sqrt{4} \times (5! + (\sqrt{9})!^{(\sqrt{9})!}) \\ &= ((\sqrt{9})!^{(\sqrt{9})!} + 5!) \times \sqrt{4} - 3. \end{aligned}$$

$$\begin{aligned} 93594 &= -(\sqrt{9})! + 3!! \times (5! + (\sqrt{9})! + 4) \\ &= (4 + (\sqrt{9})! + 5!) \times 3!! - (\sqrt{9})! \\ &= (3! + 4 + 5!) \times (\sqrt{9})!! - (\sqrt{9})! \\ &= -(\sqrt{9})! + (\sqrt{9})!! \times (5! + 4 + 3!). \end{aligned}$$

$$\begin{aligned} 93595 &= (\sqrt{9})!! + 3!! \times (5! + 9) - 5 \\ &= -5 + (9 + 5!) \times 3!! + (\sqrt{9})!! \\ &= 3!! - 5 + (5! + 9) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (9 + 5!) - 5 + 3!! . \end{aligned}$$

$$\begin{aligned} 93597 &= -\sqrt{9} + 3!! \times (5! + \sqrt{9} + 7) \\ &= (7 + \sqrt{9} + 5!) \times 3!! - \sqrt{9} \\ &= (3 + 5! + 7) \times (\sqrt{9})!! - \sqrt{9} \\ &= -\sqrt{9} + (\sqrt{9})!! \times (7 + 5! + 3). \end{aligned}$$

$$\begin{aligned} 94032 &= (\sqrt{9})!! + (4 - 0!)!^{3!} \times 2 \\ &= 2 \times 3!^{0!+\sqrt{4}} + (\sqrt{9})!! \\ &= (0! + 2)!^{3!} \times \sqrt{4} + (\sqrt{9})!! \\ &= (\sqrt{9})!! + \sqrt{4} \times 3!^{(2+0!)!}. \end{aligned}$$

$$\begin{aligned} 94464 &= \left( (\sqrt{9})!! - \sqrt{\sqrt{\sqrt{4^{4!}}}} \right) \times 6 \times 4! \\ &= \sqrt{4} \times (\sqrt{64})! + 4!^{\sqrt{9}} \\ &= \sqrt{4} \times (\sqrt{4!^4} + 6^{(\sqrt{9})!}) \\ &= (9 + 6!/\sqrt{4}) \times 4^4. \end{aligned}$$

$$\begin{aligned} 94944 &= ((9 + 4!) \times (\sqrt{9})!! - 4!) \times 4 \\ &= 4 \times (-4! + (9 + 4!) \times (\sqrt{9})!!) \\ &= 4 \times (-4! + (4! + 9) \times (\sqrt{9})!!) \\ &= ((\sqrt{9})!! \times (9 + 4!) - 4!) \times 4. \end{aligned}$$

$$\begin{aligned} 95368 &= ((\sqrt{9})! + 5^3) \times (6! + 8) \\ &= (8 + 6!) \times (3! + 5^{\sqrt{9}}) \\ &= (3! + \sqrt{5^6}) \times (8 + (\sqrt{9})!!) \\ &= ((\sqrt{9})!! + 8) \times (6 + 5^3). \end{aligned}$$

$$\begin{aligned} 95499 &= (9 + 5! + \sqrt{4}) \times 9^{\sqrt{9}} \\ &= 9^{\sqrt{9}} \times (\sqrt{4} + 5! + 9) \\ &= (\sqrt{4} + 5! + 9) \times 9^{\sqrt{9}} \\ &= 9^{\sqrt{9}} \times (9 + 5! + \sqrt{4}). \end{aligned}$$

$$\begin{aligned} 95532 &= (-(\sqrt{9})! + 5!) \times (5! + 3!! - 2) \\ &= (-2 + 3!! + 5!) \times (5! - (\sqrt{9})!). \end{aligned}$$

$$\begin{aligned} 95757 &= -\sqrt{9} + 5! \times 7 \times 5! - 7! \\ &= -7! + 5! \times 7 \times 5! - \sqrt{9} \\ &= 5! \times 5! \times 7 - 7! - \sqrt{9} \\ &= -\sqrt{9} - 7! + 7 \times 5! \times 5!. \end{aligned}$$

$$\begin{aligned} 95760 &= (\sqrt{9})!! \times (5! + 7 + 6) + 0 \\ &= 0 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= 0 + (5! + 6 + 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 + 6 + 5!) + 0. \end{aligned}$$

$$\begin{aligned} 95761 &= (\sqrt{9})!! \times (5! + 7 + 6) + 1 \\ &= 1 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= 1 + (5! + 6 + 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 + 6 + 5!) + 1. \end{aligned}$$

$$\begin{aligned} 95762 &= (\sqrt{9})!! \times (5! + 7 + 6) + 2 \\ &= 2 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= 2 + (5! + 6 + 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 + 6 + 5!) + 2. \end{aligned}$$

$$\begin{aligned} 95763 &= (\sqrt{9})!! \times (5! + 7 + 6) + 3 \\ &= 3 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= 3!! \times (5! + 6 + 7) + \sqrt{9} \\ &= (\sqrt{9})!! \times (7 + 6 + 5!) + 3. \end{aligned}$$

$$\begin{aligned} 95764 &= (\sqrt{9})!! \times (5! + 7 + 6) + 4 \\ &= 4 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= 4 + (5! + 6 + 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 + 6 + 5!) + 4. \end{aligned}$$

$$\begin{aligned} 95765 &= (\sqrt{9})!! \times (5! + 7 + 6) + 5 \\ &= 5 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= 5 + (5! + 6 + 7) \times (\sqrt{9})!! \\ &= (\sqrt{9})!! \times (7 + 6 + 5!) + 5. \end{aligned}$$

$$\begin{aligned} 95766 &= (\sqrt{9})!! \times (5! + 7 + 6) + 6 \\ &= 6 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= (5! - 6)/6 \times 7! + (\sqrt{9})! \\ &= (\sqrt{9})! + 7! + 6! \times (6 + 5!). \end{aligned}$$

$$\begin{aligned} 95769 &= (\sqrt{9})!! \times (5! + 7 + 6) + 9 \\ &= 9 + (6 + 7 + 5!) \times (\sqrt{9})!! \\ &= (5! + 6 + 7) \times (\sqrt{9})!! + 9 \\ &= 9 + (\sqrt{9})!! \times (7 + 6 + 5!). \end{aligned}$$

$$\begin{aligned} 95784 &= ((\sqrt{9})! + 5) \times 7! + 8! + 4! \\ &= 4! + 8! + 7! \times (5 + (\sqrt{9})!) \\ &= 4! + 5! \times (78 + (\sqrt{9})!!) \\ &= \sqrt{9} \times 8 + 7! \times (-5 + 4!). \end{aligned}$$

$$\begin{aligned} 96957 &= \sqrt{9^6} \times ((\sqrt{9})! + 5! + 7) \\ &= (7 + 5! + (\sqrt{9})!) \times (6! + 9) \\ &= (5! + 6 + 7) \times 9^{\sqrt{9}} \\ &= 9^{\sqrt{9}} \times (7 + 6 + 5!). \end{aligned}$$

$$\begin{aligned} 97209 &= ((\sqrt{9})!! + 0! + 2 \times 7!) \times 9 \\ &= ((\sqrt{9})!! + 7! \times 2 + 0!) \times 9 \\ &= (0! + 2 \times 7! + (\sqrt{9})!!) \times 9 \\ &= 9 \times ((\sqrt{9})!! + 7! \times 2 + 0!). \end{aligned}$$

$$\begin{aligned} 97632 &= -(\sqrt{9})!! + 7! + 6^{3!} \times 2 \\ &= 2 \times 3!^6 + 7! - (\sqrt{9})!!. \end{aligned}$$

$$\begin{aligned} 98304 &= 9 \times 8^{3!}/(0 + 4)! \\ &= 4^{03!} \times 8 \times \sqrt{9} \\ &= 03 \times (4 \times 8)^{\sqrt{9}} \\ &= (\sqrt{9})!! \times 8^4/30. \end{aligned}$$

$$\begin{aligned} 98415 &= 9^{8-4} \times 15 \\ &= 5 \times (-1 + 4)^8 \times \sqrt{9} \\ &= (1 + 4) \times (-5 + 8)^9 \\ &= \sqrt{9^8} \times 5 \times (4 - 1). \end{aligned}$$

$$\begin{aligned} 98503 &= (9 + 8 + 5!) \times (-0! + 3!!) \\ &= (3!! - 0!) \times (5! + 8 + 9) \\ &= (-0! + 3!!) \times (5! + 8 + 9) \\ &= (9 + 8 + 5!) \times (3!! - 0!). \end{aligned}$$

$$\begin{aligned} 99354 &= -(\sqrt{9})! + (\sqrt{9})!! \times (-3! + 5! + 4!) \\ &= (4! + 5! - 3!) \times (\sqrt{9})!! - (\sqrt{9})! \\ &= (-3! + 4! + 5!) \times (\sqrt{9})!! - (\sqrt{9})! \\ &= -(\sqrt{9})! + (\sqrt{9})!! \times (5! + 4! - 3!). \end{aligned}$$

$$\begin{aligned} 99369 &= (9! + 9^{\sqrt{36}})/9 \\ &= (9^{(6-3)!} + 9!)/9 \\ &= ((3 + 6)^{(\sqrt{9})!} + 9!)/9 \\ &= (9^{(\sqrt{9})!} + 9!)/(6 + 3). \end{aligned}$$

$$\begin{aligned} 99792 &= 99 \times 7!/(\sqrt{9} + 2) \\ &= 2 \times 9 \times (7! + 9!/( \sqrt{9})!!) \\ &= 2 \times (7! + 9!/( \sqrt{9})!!) \times 9 \\ &= 9 \times (9!/( \sqrt{9})!! + 7!) \times 2. \end{aligned}$$

## 5 Selfie Numbers In Order of Digits and Reverse

$1392 := -(1 + 3)! + (\sqrt{9}!!) \times 2$	$= 2 \times ((\sqrt{9})!! - (3 + 1)!!).$	$7235 := (7 + 2 \times 3!!) \times 5$	$= 5 \times (3!! \times 2 + 7).$
$1426 := -14 + 2 \times 6!$	$= 62 \times (4! - 1).$	$7595 := 7 \times (5 + 9 \times 5!!)$	$= (5 + 9 \times 5!!) \times 7.$
$1573 := (1 + 5!) \times (7 + 3!!)$	$= (3! + 7) \times (5! + 1).$	$8192 := 8^{1+\sqrt{9}} \times 2$	$= 2^{9+1} \times 8.$
$1704 := (1 + 70) \times 4!$	$= 4! \times (0 + 71).$	$8648 := 8 + 6! \times (4 + 8)$	$= (8 + 4) \times 6! + 8.$
$2048 := 2^{(-0!+4+8)}$	$= 8^4/(0 + 2).$	$9599 := ((\sqrt{9})!! \times 5! - 9)/9$	$= (-9 + (\sqrt{9})!! \times 5!)/9.$
$2304 := \sqrt{(2 \times (3 + 0!)!)^4}$	$= 4 \times (0! + 3!)^2.$	$10075 := (1 + 0!) \times (0 + 7)! - 5$	$= -5 + 7! \times (0 + 0! + 1).$
$2544 := (2 + 5)!/\sqrt{4} + 4!$	$= 4! + (\sqrt{4} + 5!)!/2.$	$10076 := (1 + 0!) \times (0! + 7!) - 6$	$= -6 + (7! + 0!) \times (0! + 1).$
$2904 := ((2 + \sqrt{9})! + 0!) \times 4!$	$= 4! \times (0! + (\sqrt{9} + 2)!!).$	$10079 := (1 + 0!) \times (0! + 7!) - \sqrt{9}$	$= (\sqrt{9})!! \times 7 \times (0! + 0!) - 1.$
$3354 := -3! + (3!! + 5!) \times 4$	$= 4 \times (5! + 3!!) - 3!.$	$10795 := -1 + (-0! + 7!) \times \sqrt{9} \times 5$	$= 5 \times (\sqrt{9} \times (7 - 0!)! - 1).$
$3376 := -3!! + (-3 + 7)^6$	$= -6! + (7 - 3)^{3!}.$	$11528 := (1 + (1 + 5!) \times 2) \times 8$	$= 8 \times (2 \times (5 + 1)! + 1).$
$3453 := 3!! \times 4!/5 - 3$	$= 3!!/5 \times 4! - 3.$	$11544 := 1 \times (1 + 5! \times 4) \times 4!$	$= 4! \times (4 \times 5! + 1) \times 1.$
$3465 := (-3 - 4! + 6!) \times 5$	$= 5 \times (6! - 4! - 3).$	$11957 := 11 \times (9 \times 5! + 7)$	$= (7 + 5! \times 9) \times 11.$
$3495 := (3 - 4! + (\sqrt{9})!!) \times 5$	$= 5! + (-9 + 4!)^3.$	$12544 := \sqrt{(-12 + 5! + 4)^4}$	$= (-4 - 4 + 5!)^2 \times 1.$
$3584 := 3!! \times 5 + 8 - 4!$	$= -\sqrt{4} \times 8 + 5 \times 3!!.$	$12974 := ((1 + 2)!! \times 9 + 7) \times \sqrt{4}$	$= \sqrt{4} \times (7 + 9 \times (2 + 1)!!).$
$3585 := (3!! + 5 - 8) \times 5$	$= 5 \times ((8 - 5)!! - 3).$	$12994 := (-1 + (2 + (\sqrt{9})!!) \times 9) \times \sqrt{4} = \sqrt{4} \times (9 \times ((\sqrt{9})!! + 2) - 1).$	
$3595 := (3!! + 5 - (\sqrt{9})!!) \times 5$	$= 5 \times (-(\sqrt{9})! + 5 + 3!!).$	$13199 := -1 + (-3!! + (-1 + 9)!!)/\sqrt{9} = (-(\sqrt{9})!! + (9 - 1)!)!/3 - 1.$	
$3615 := (3 + 6!) \times 1 \times 5$	$= 5 \times 1 \times (6! + 3).$	$13392 := ((1 + 3)! + 3!!) \times 9 \times 2$	$= 2 \times (\sqrt{9})!^3 \times 31.$
$3654 := (3! + 6!) \times 5 + 4!$	$= 4! + 5 \times (6 + 3!!).$	$13433 := -1 - 3! + (\sqrt{4^3})!/3$	$= -3! + (3! + \sqrt{4})!/3 - 1.$
$3655 := (3!! + 6 + 5) \times 5$	$= 5 \times (5 + 6 + 3!!).$	$13435 := (1 + 3 + 4)!/3 - 5$	$= -5 + (3! + \sqrt{4})!/3 \times 1.$
$3755 := (3!! + 7) \times 5 + 5!$	$= 5! + 5 \times (7 + 3!!).$	$13454 := 1 - 3 + (-4 + 5!)^{\sqrt{4}}$	$= (-4 + 5!)^{\sqrt{4}} - 3 + 1.$
$3864 := 3 \times (-8 + 6^4)$	$= -4! + \sqrt{6^8} \times 3.$	$13537 := 1 + 3!^5 + 3!! + 7!$	$= 7! + 3!^5 + 3!! + 1.$
$3957 := -3 - 9 \times 5! + 7!$	$= 7! - 5! \times 9 - 3.$	$13661 := (13 + 6) \times (6! - 1)$	$= (-1 + 6!) \times (6 \times 3 + 1).$
$4088 := 4^{(\sqrt{0!+8}!)} - 8$	$= -8 + 8^{0+4}.$	$13822 := \sqrt{(1 + 3)!!^{8-2}} - 2$	$= -2 + (\sqrt{2 \times 8})!^3 \times 1.$
$4096 := 4^{0 \times 9+6}$	$= (6!/90)^4.$	$13825 := 1 + (3 \times 8)^{(-2+5)}$	$= ((5 - 2) \times 8)^3 + 1.$
$4098 := \sqrt{4} + \sqrt{(-0! + 9)^8}$	$= \sqrt{8(9 - 0!)} + \sqrt{4}.$	$13829 := -1 + 3! + (8/2)^{\sqrt{9}}$	$= (\sqrt{9})! + (\sqrt{2 \times 8})!^3 - 1.$
$4099 := 4^{(\sqrt{0+9})!} + \sqrt{9}$	$= \sqrt{9} + (9 - 0!)^4.$	$14352 := 1 \times 4! \times (3!! - 5! - 2)$	$= (-2 - 5! + 3!!) \times 4! \times 1.$
$4176 := (-4! + (-1 + 7)!!) \times 6$	$= 6 \times ((7 - 1)! - 4!).$	$14359 := -1 + (-\sqrt{4} + 3!!) \times 5! / (\sqrt{9})! = (\sqrt{9})!! \times 5! / 3! - 41.$	
$4308 := (-\sqrt{4} + 3!!) \times (\sqrt{0! + 8})! = (\sqrt{8 + 0!})! \times (3!! - \sqrt{4}).$		$14365 := (-1 + 4 \times 3!! - 6) \times 5$	$= 5 \times (-6 + 3!! \times 4 - 1).$
$4318 := -\sqrt{4} + 3! \times (\sqrt{1 + 8})!!$	$= (8 - 1)! - 3!! - \sqrt{4}.$	$14376 := -1 \times 4! + 3 \times 7! - 6!$	$= -6! + 7! \times 3 - 4! \times 1.$
$4324 := 4 + 3! \times (2 + 4)!$	$= (4 + 2) \times 3!! + 4.$	$14545 := 1 + 4! + 5!^{\sqrt{4}} + 5!$	$= 5!^{\sqrt{4}} + 5! + 4! + 1.$
$4336 := -\sqrt{4} + 3! \times (3 + 6!)$	$= 6 \times (3 + 3!!) - \sqrt{4}.$	$14637 := (1 - 4! + 6!) \times 3 \times 7$	$= 7 \times 3 \times (6! - 4! + 1).$
$4346 := \sqrt{4} + 3! \times (4 + 6!)$	$= 6 \times (4 + 3!!) + \sqrt{4}.$	$14755 := (-1 + 4) \times (7! - 5!) - 5$	$= -5 + (-5! + 7!) \times (4 - 1).$
$4816 := 4^{(\sqrt{\sqrt{8}!})!} + 6!$	$= 6! + 1 \times 8^4.$	$15093 := ((\sqrt{-1 + 50})! - 9) \times 3$	$= -3 \times (9 - (0! + 5 + 1)!!).$
$4977 := (-\sqrt{4} + (\sqrt{9})!! - 7) \times 7$	$= \sqrt{(7! - 7 \times 9)^{\sqrt{4}}}.$	$15117 := (1 - (5 - 1)) \times (1 - 7!!)$	$= (7! - 1) \times (-1 + 5 - 1).$
$4995 := (\sqrt{49})! - 9 \times 5$	$= -5 \times 9 + (9 - \sqrt{4})!!.$	$15232 := (-1 + 5!) \times 2^{3!} \times 2$	$= 2^{3!} \times 2 \times (5! - 1).$
$5016 := -(5 - 0!)! + (1 + 6)!!$	$= (6 + 1)! - (-0! + 5)!!.$	$15237 := -1 + 5! - 2 + 3 \times 7!!$	$= 7! \times 3 - 2 + 5! - 1.$
$5027 := -\sqrt{5! + 0!} - 2 + 7!$	$= 7! - 2 - \sqrt{0! + 5!}.$	$15273 := (-1 + 52 + 7!) \times 3$	$= 3 \times ((\sqrt{7^2})! + 51).$
$5029 := -\sqrt{5! + 0!} + (-2 + 9)!!$	$= (9 - 2)! - \sqrt{0! + 5!}.$	$15279 := (1 + 52 + 7!) \times \sqrt{9}$	$= \sqrt{9} \times (7! + 2 + 51).$
$5184 := \sqrt{(5 + 1)^8} \times 4$	$= 4! + (8 - 1)! + 5!!.$	$15359 := -1 + 5! \times (3 + 5^{\sqrt{9}})$	$= (\sqrt{9} + 5^3) \times 5! - 1.$
$5395 := -(5! - 3!!) \times 9 - 5$	$= -5 + 9 \times (3!! - 5!!).$	$15367 := (1 + 5!) \times (3!!/6 + 7)$	$= (7 + 6!/3!) \times (5! + 1).$
$6719 := -(6 - (7 + 1)!!)/(\sqrt{9})!$	$= -(\sqrt{9})! + (1 + 7)!!/6.$	$15488 := (1 + 5!) \times \sqrt{4} \times 8 \times 8$	$= 88^{\sqrt{4}} \times \sqrt{5 - 1}.$
$6768 := (6 + 7!/6) \times 8$	$= 8 \times (6 + 7!/6).$	$15505 := 1 \times 5^{5+0!} - 5!$	$= 5^{0!+5} - 5! \times 1.$
$6835 := (6! + 8!)!/3! - 5$	$= -5 + (3!! + 8!)/6.$	$15552 := (15/5)!^5 \times 2$	$= (-2 + 5)!^5 \times \sqrt{5 - 1}.$
$6859 := (6 + 8 + 5)^{\sqrt{9}}$	$= \sqrt{((\sqrt{9})! + 5 + 8)^6}.$	$15564 := ((1 + 5)^5 + 6) \times \sqrt{4}$	$= \sqrt{4} \times (6^5 + 5 + 1).$
$6864 := (6! + 8!)!/6 + 4!$	$= 4! \times 6 + 8!/6.$	$15609 := (1 + 5!) \times ((6 - 0!)! + 9)$	$= (9 + (-0! + 6)!) \times (5! + 1).$
$7056 := (7 - 0!)^5 - 6!$	$= 6^5 - (-0! + 7)!!.$	$15619 := 1 + 5^6 - 1 - (\sqrt{9})!$	$= ((\sqrt{9})! - 1)^6 - 5 - 1.$
$7193 := -7 + (1 + 9) \times 3!!$	$= 3!! \times (9 + 1) - 7.$		

$15623 := 1 + 5^{\sqrt{6^2}} - 3$	$= (3 + 2)^6 - \sqrt{5 - 1}.$	$22968 := (2 \times 2)! \times (-\sqrt{9} - 6!) + 8! = 8! - (6! + \sqrt{9}) \times (2 \times 2)!.$
$15627 := -1 + 5^6 + \sqrt{2 + 7}$	$= (7 - 2)^6 + \sqrt{5 - 1}.$	$22984 := (2 + (-2 + (\sqrt{9}!!)) \times 8) \times 4 = 4 \times (8 \times ((\sqrt{9}!! - 2) + 2).$
$15649 := 1 \times 5^6 + 4 \times (\sqrt{9})!$	$= (9 - 4)^6 + (5 - 1)!!.$	$23035 := (2 + 30) \times 3!! - 5 = -5 + 3!! \times (0 + 32).$
$15654 := 1 \times 5^6 + 5 + 4!$	$= 4! + 5^6 + 5 \times 1.$	$23038 := -2 + (3 + 0!) \times 3!! \times 8 = 8 \times (3 + 0!) \times 3!! - 2.$
$15745 := 1 \times 5^{(7-4)!} + 5!$	$= 5! + (\sqrt{4} - 7)^{5+1}.$	$23064 := (2 + 30) \times 6! + 4! = 4! + 6! \times (0 + 32).$
$15763 := \sqrt{1 + 5!} \times (-7 + 6! + 3!!)$	$= (3!! + 6! - 7) \times \sqrt{5! + 1}.$	$23136 := 2^{3!-1} \times (3 + 6!) = (6! + 3) \times 1 \times 32.$
$15864 := (-1 - 58 + 6!) \times 4!$	$= 4! \times (6! - 8 - 51).$	$23323 := -2 + 3!^{3!}/2 - 3 = -3 - 2 + 3!^{3!}/2.$
$15928 := \sqrt{1 + 5!} \times ((\sqrt{9})!! \times 2 + 8)$	$= (8 + 2 \times (\sqrt{9})!!) \times \sqrt{5! + 1}.$	$23325 := 2 + 3!^{3!}/2 - 5 = -5 + 2 + 3!^{3!}/2.$
$15939 := \sqrt{1 + 5!} \times (9^3 + (\sqrt{9})!!)$	$= (9^3 + (\sqrt{9})!!) \times \sqrt{5! + 1}.$	$23326 := -2 + 3!^{3!}/\sqrt{-2 + 6} = 6^{2+3} \times 3 - 2.$
$15967 := (1 + 5! + \sqrt{9} \times 6!) \times 7$	$= 7 \times (6! \times \sqrt{9} + 5! + 1).$	$23329 := -2 + 3!^{3!}/2 + \sqrt{9} = \sqrt{9} - 2 + 3!^{3!}/2.$
$16346 := 1 + 6! + (3 + \sqrt{4})^6$	$= 6! + (\sqrt{4} + 3)^6 + 1.$	$23392 := (2 + 9^3) \times 32 = 2^{3!} + 3!(\sqrt{9})!/2.$
$16377 := (1 + 6 - 3)^7 - 7$	$= -7 + (7 - 3)^{6+1}.$	$23664 := (-2 + 36) \times (6! - 4!) = (-4! + 6!) \times (6 \times 3! - 2).$
$16564 := -1 - 6! + 5 + 6! \times 4!$	$= 4! \times 6! + 5 - 6! - 1.$	$23758 := -2 + 3!! \times (-7 + 5 \times 8) = (8 \times 5 - 7) \times 3!! - 2.$
$16992 := (\sqrt{16})! \times ((\sqrt{9})!! - (\sqrt{9})! \times 2)$	$= 2 \times ((\sqrt{9})!! + (\sqrt{9})!^{(6-1)}).$	$23856 := (\sqrt{2^{3 \times 8} - 5!}) \times 6 = 6 \times (-5! + 8^{3!-2}).$
$17039 := -1 + \sqrt{7! + 0!} \times 3!!/\sqrt{9}$	$= (\sqrt{9})!!/3 \times \sqrt{0! + 7!} - 1.$	$24276 := (2 + 4!^2) \times 7 \times 6 = 6 \times 7 \times (2 + 4!^2).$
$17064 := (-1 - 7 - 0! + 6!) \times 4!$	$= 4! \times (6! - 0! - 7 - 1).$	$24336 := (2 + 4!) \times (3!^3 + 6!) = ((6 + 33) \times 4)^2.$
$17136 := (\sqrt{17 - 1})! \times (3!! - 6)$	$= (6! - 3!) \times (\sqrt{17 - 1})!.$	$24384 := (2^{4+3!} - 8) \times 4! = 4! \times (8^3 - 4) \times 2.$
$17248 := (-1 + (\sqrt{7 + 2})!!) \times 4! - 8$	$= -8 + (4! \times ((\sqrt{2 + 7})!! - 1)).$	$24576 := (-2 + 4)^{5+7} \times 6 = 6 \times (7 - 5)^{4!}/2.$
$17253 := \sqrt{1 + 7!} \times (2 \times 5! + 3)$	$= 3\sqrt{5^2} \times 71.$	$24624 := (2^{4+6} + 2) \times 4! = 4! \times (2^{6+4} + 2).$
$17264 := -(1 + 7) \times 2 + 6! \times 4!$	$= 4! \times 6! - 2 \times (7 + 1).$	$24975 := (-2 \times 4! + \sqrt{9} + 7!) \times 5 = 5 \times (7! - \sqrt{9} - 42).$
$17294 := 1 \times 7 \times 2 + (\sqrt{9})!! \times 4!$	$= 4! \times (\sqrt{9})!! + 2 \times 7 \times 1.$	$25075 := (-25 + (0 + 7)!) \times 5 = 5 \times (7! + 0 - 5^2).$
$17296 := (1 + 7) \times (2 + \sqrt{9} \times 6!)$	$= (6! \times \sqrt{9} + 2) \times (7 + 1).$	$25165 := ((2 + 5)! - 1 - 6) \times 5 = 5 \times (6! - 1) \times (5 + 2).$
$17304 := (1^7 + 3!! + 0) \times 4!$	$= 4 \times (0! + 3!!) \times (7 - 1).$	$25183 := -2 + 5 \times ((-1 + 8)! - 3) = (-3 + (8 - 1)!) \times 5 - 2.$
$17351 := \sqrt{1 + 7!} + 3!! \times (5 - 1)!$	$= (-1 + 5)! \times 3!! + 71.$	$25185 := (2 - 5 + (-1 + 8)!) \times 5 = 5 \times ((8 - 1)! - 5 + 2).$
$17395 := (5 + (\sqrt{9})!!/3) \times 71$	$= \sqrt{1 + 7!} \times (3!!/\sqrt{9} + 5).$	$25187 := 2 + 5 \times (-\sqrt{1 + 8} + 7!) = (7! - \sqrt{\sqrt{81}}) \times 5 + 2.$
$17424 := \sqrt{((-1 + 7) \times (4! - 2))^4}$	$= 4! \times (2 + 4 + (7 - 1)!).$	$25189 := -2 + 5 \times (-1 + 8)! - 9 = -9 + (8 - 1)! \times 5 - 2.$
$17527 := 1 \times 7^5 + (\sqrt{2 + 7})!!$	$= 7^{\sqrt{25}} + (7 - 1)!.$	$25192 := 2 + 5 \times ((1 + (\sqrt{9})!!) - 2) = (-2 + ((\sqrt{9})! + 1)!) \times 5 + 2.$
$17925 := ((-1 + 7)! - \sqrt{9}) \times 25$	$= 5 \times (2^9 \times 7 + 1).$	$25196 := 2 + 5 \times (1 + (\sqrt{9})!!) - 6 = -6 + ((\sqrt{9})! + 1)! \times 5 + 2.$
$17994 := 1 - 7 + (\sqrt{9})!! + (\sqrt{9})!! \times 4!$	$= 4! \times (\sqrt{9})!! + (\sqrt{9})!! - 7 + 1.$	$25198 := -2 + 5 \times (-1^9 + 8)! = 8!/(9 - 1) \times 5 - 2.$
$17995 := (1 + (\sqrt{7 + 9})!!) \times (\sqrt{9})!! - 5$	$= -5 + (\sqrt{9})!! \times ((\sqrt{9 + 7})!! + 1).$	$25199 := 2 + 5 \times (1 + (\sqrt{9})!!) - \sqrt{9} = -\sqrt{9} + ((\sqrt{9})! + 1)! \times 5 + 2.$
$17997 := (-1 + 7! - (\sqrt{9})!!) \times \sqrt{9} + 7! = 7! - \sqrt{9} \times ((\sqrt{9})!! - 7! + 1).$		$25207 := 2 + 5 \times ((2 \times 0)!! + 7!) = (7! + 0!) \times \sqrt{25} + 2.$
$18025 := ((\sqrt{1 + 8})!! + 0!) \times 25$	$= 5^2 \times (0! + (\sqrt{\sqrt{81}})!!).$	$25208 := -2 + 5 \times (2 + (-0! + 8)!!) = ((8 - 0)!! + 2) \times 5 - 2.$
$18642 := (-\sqrt{1 + 8} + 6!) \times (4! + 2)$	$= (2 + 4!) \times (6! - \sqrt{\sqrt{81}}).$	$25217 := 2 + 5 \times (2 + 1 + 7!) = (7! + 1 + 2) \times 5 + 2.$
$18963 := \sqrt{(18 + 9)^6} - 3!!$	$= -3!! + (-6 + 9)^{\sqrt{81}}.$	$25335 := ((2 + 5)! + 3^3) \times 5 = 5 \times (3^3 + (5 + 2)!!).$
$18969 := \sqrt{(1 + 8)^9} - 6! + (\sqrt{9})!$	$= (\sqrt{9})! - 6! + \sqrt{9\sqrt{81}}.$	$25337 := 2 + 5 \times (3^3 + 7!) = (7! + 3^3) \times 5 + 2.$
$19395 := 1 \times 9 \times 3 \times (\sqrt{9})!! - 5$	$= (-5 + \sqrt{9} \times 3!!) \times 9 \times 1.$	$25775 := (2 + 5! - 7 + 7!) \times 5 = 5 \times (7! - 7 + 5! + 2).$
$19443 := (1 + 9 \times (4 + \sqrt{4})!!) \times 3$	$= 3 \times ((4 + \sqrt{4})! \times 9 + 1).$	$25918 := -2 - 5!^{\sqrt{5}-1} + 8! = (\sqrt{81})!/(9 + 5) - 2.$
$19464 := 1 \times (\sqrt{9} + 4!) \times 6! + 4!$	$= 4! \times 6! + 4! \times 91.$	$25932 := (-2 + 5)! \times ((\sqrt{9})! \times 3!! + 2) = (2 + 3! \times (\sqrt{9})!!) \times (5 - 2)!!.$
$19467 := (1 + (\sqrt{9})!!) \times \sqrt{\sqrt{4 + 6!} + 7} = \sqrt{7 + 6! + \sqrt{4}} \times ((\sqrt{9})!! + 1).$		$25945 := 25 + 9 \times 4! \times 5! = 5! \times 4! \times 9 + 5^2.$
$20157 := -2 - 0! + (-1 + 5) \times 7!$	$= 7! \times (5 - 1) - 0! - 2.$	$26244 := (2 \times (6/2)^4)^{\sqrt{4}}$
$20184 := (2^{0!+1})! + 8!/\sqrt{4}$	$= 4! + 8!/(1 \times 0 + 2).$	$= (4 \times 42 - 6)^2.$
$20495 := (\sqrt{2^{0+4!}} + \sqrt{9}) \times 5$	$= 5 \times (\sqrt{9} + 4^{(0!+2)!}).$	$26354 := 2 + 6^3 \times (5! + \sqrt{4}) = (\sqrt{4} + 5!) \times \sqrt{3!^6} + 2.$
$20734 := -2 + (-0! + 7 + 3!)^4$	$= \sqrt{(4 \times 3)^{7+0!} - 2}.$	$26494 := (2 + 6)! - 4!^{\sqrt{9}} - \sqrt{4}$
$21575 := -(2 + 1)!! - 5 + 7! \times 5$	$= 5 \times (7! - 5 - (1 + 2)!!).$	$= 4 \times (-6 + 8!/6 + 2).$
$21595 := 2 \times 15 \times (\sqrt{9})!! - 5$	$= -5 + (\sqrt{9})!! \times 5 \times (1 + 2)!!.$	$= 8! - (6 + 8!/6) \times 2.$
$21596 := 2 + (-1 + 5 \times (\sqrt{9})!!) \times 6$	$= 6 \times ((\sqrt{9})!! \times 5 - 1) + 2.$	$= (6 + \sqrt{4!^6} - 7) \times 2.$
$21605 := ((2 + 1)! \times 6! + 0!) \times 5$	$= 5 \times (0! + 6 \times (1 + 2)!!).$	$27744 := 4! + (4 + 7) \times 7!/2 = \sqrt{(27 + 7)^4 \times 4!}.$
		$= 42^2 \times 8 \times 2.$
		$= \sqrt{(\sqrt{9} + 5 + 5)^8} - 2.$
		$= -5 - 9!/7 + 8! \times 2.$

$$\begin{aligned}
28798 &:= -2 - 8!/7 \times (\sqrt{9} - 8) \\
28805 &:= ((-2 + 8)! \times 8 + 0!) \times 5 \\
29476 &:= -2 + (\sqrt{9})! \times \sqrt{(4! - 7)^6} \\
29496 &:= ((-2 + 9)! - 4) \times (\sqrt{9})! - 6! \\
29518 &:= -2 + (\sqrt{9})! \times (-5! + (-1 + 8)!) \\
29576 &:= 2 + (9 - 5! + 7!) \times 6 \\
29584 &:= \sqrt{(-2 + \sqrt{9} \times 58)^4} \\
29791 &:= ((-2 + (\sqrt{9})!)! + 7)^{\sqrt{9}} \times 1 \\
29976 &:= (-2 + (-(\sqrt{9})! + (\sqrt{9})!!) \times 7) \times 6 = 6 \times (7 \times ((\sqrt{9})!! - (\sqrt{9})!) - 2). \\
30096 &:= ((3! + 0!)! - (0! + \sqrt{9})!) \times 6 \\
30186 &:= ((3! + 0!)! - 1 - 8) \times 6 \\
30228 &:= ((3! + 0!)! - 2) \times (-2 + 8) \\
30252 &:= (2 + (5 + 2)!) \times (0 + 3)! \\
30274 &:= 3! \times ((0! + 2)! + 7!) - \sqrt{4} \\
30288 &:= 3! \times ((0! - 2 + 8)! + 8) \\
30354 &:= 3! \times ((0! + 3)! - 5 + 4!) \\
30372 &:= 3! \times ((0! + 3)! + 7! - 2) \\
30377 &:= 3! \times ((0! + 3)! + 7!) - 7 \\
30384 &:= (-30 + \sqrt{3!^8}) \times 4! \\
30947 &:= 3!! - 0! + (\sqrt{9})! \times (-\sqrt{4} + 7!) \\
30955 &:= 3!! + (0! + 9!)!/5! - 5 \\
30972 &:= 3!! - 0 + (\sqrt{9})! \times (7! + 2) \\
31995 &:= (3!! - 1 \times 9) \times 9 \times 5 \\
32048 &:= -3!! + \sqrt{2^{0+4!}} \times 8 \\
32256 &:= (3! - 2!)^2 \times 56 \\
32394 &:= -3 \times (2 + 3! \times (9 - 4!)) \\
32448 &:= 3! \times (2 + 4!)^{\sqrt{4}} \times 8 \\
32538 &:= 8! - 3!^5 - 2 \times 3 \\
32544 &:= -(3 \times 2)^5 + (4 + 4)! \\
32744 &:= 32^{7-4} - 4! \\
32762 &:= (2 + 6)^{7-2} - 3! \\
32771 &:= (1 + 7)^{7-2} + 3 \\
32805 &:= \sqrt{3^{2 \times 8}} \times (0 + 5) \\
32835 &:= (\sqrt{3^{2 \times 8}} + 3!) \times 5 \\
33144 &:= (3!! + 3!!) \times (-1 + 4!) + 4! \\
33494 &:= 3! + 3!! + \sqrt{4^{-9+4!}} \\
33495 &:= (3 + (3!! + 4!) \times 9) \times 5 \\
33595 &:= (-3! + (3 + 5)!) / (\sqrt{9})! \times 5 \\
33839 &:= -3/3 + 8! - 3!! \times 9 \\
33852 &:= (2 - 5! + 8 \times 3!!) \times 3! \\
33981 &:= (3 + 3!!) \times ((\sqrt{9})! \times 8 - 1) \\
34224 &:= (3!! + 4!) \times (22 + 4!) \\
34269 &:= -3 + 4! \times 2 \times (6! - (\sqrt{9})!) \\
34377 &:= (-3 \times 43 + 7!) \times 7 \\
34432 &:= (3!! \times 4! - 4^3) \times 2 \\
34454 &:= ((3!! - \sqrt{4}) \times 4! - 5) \times \sqrt{4} \\
34494 &:= (3!! \times 4! - 4! - 9) \times \sqrt{4} \\
34512 &:= (3!! \times 4! - (5 - 1)!) \times 2 \\
34528 &:= (-3!! - 4 + (5 + 2)!) \times 8 \\
&= 8! - 9!/7 + 8! - 2. \\
&= 5 \times (0! + 8 \times (8 - 2)!). \\
&= 6 \times (-7 + 4!)^{\sqrt{9}} - 2. \\
&= -6! + (\sqrt{9})! \times (-4 + (9 - 2)!). \\
&= 8! - 15 \times (\sqrt{9})!! - 2. \\
&= 6 \times (7! - 5! + 9) + 2. \\
&= (4 \times (8 \times 5 + \sqrt{9}))^2. \\
&= \sqrt{(1 + \sqrt{9})! + 7}^{\sqrt{9} \times 2}. \\
&= (-2 + (-(\sqrt{9})! + (\sqrt{9})!!) \times 7) \times 6 = 6 \times (7 \times ((\sqrt{9})!! - (\sqrt{9})!) - 2). \\
&= 6 \times (((\sqrt{9})! + 0!)! - (0! + 3)!). \\
&= -6 \times (\sqrt{81} - (0! + 3!)!). \\
&= (8 - 2) \times (-2 + (0! + 3!)!). \\
&= 3! \times (0 + 2 + (5 + 2)!). \\
&= -\sqrt{4} + (7! + (2 + 0!)!) \times 3!. \\
&= (8 + (8 - (2 \times 0)!!)) \times 3!. \\
&= (4! - 5 + (3! + 0!)!) \times 3!. \\
&= (-2 + 7! + (3 + 0!)!) \times 3!. \\
&= -7 + (7! + (3 + 0!)!) \times 3!. \\
&= (4! + (8 - (3 \times 0)!!)) \times 3!. \\
&= (7! - \sqrt{4}) \times (\sqrt{9})! - 0! + 3!! . \\
&= -5 + 5! + ((\sqrt{9})! + 0!)! \times 3!. \\
&= (2 + 7!) \times (\sqrt{9})! - 0 + 3!! . \\
&= -5 \times 9 \times (9 - 1 \times 3!!). \\
&= 8^{4+0!} - (2 \times 3)!. \\
&= (6 + 5!) \times 2^{(2^3)}. \\
&= ((4! - 9) \times 3!! - 2) \times 3. \\
&= (8 + 4 \times 4!)^2 \times 3. \\
&= -(3 \times 2)^5 - 3! + 8!. \\
&= 4! \times 452 \times 3. \\
&= 4 \times (4^7 / 2 - 3!). \\
&= -3! + 2^{(7+6+2)}. \\
&= 3 + 2^{(7+7+1)}. \\
&= 5 \times \sqrt{(0! + 8)^{(2^3)}}. \\
&= 5 \times (3^8 + 2 \times 3). \\
&= 4! + (4! - 1) \times (3!! + 3!!). \\
&= \sqrt{4^{-9+4!}} + 3!! + 3!. \\
&= 5 \times (9 \times (4! + 3!!) + 3). \\
&= 5 \times ((\sqrt{9} + 5)! - 3!) / 3!. \\
&= -9 \times 3!! + 8! - 3/3. \\
&= 3! \times (3!! \times 8 - 5! + 2). \\
&= (-1 + 8 \times (\sqrt{9})!) \times (3 + 3!!). \\
&= (4! + 22) \times (4! + 3!!). \\
&= ((\sqrt{9})!! - 6) \times 2 \times 4! - 3. \\
&= 7 \times (7! - 3 \times 43). \\
&= 2 \times (3!! \times 4! - 4^3). \\
&= \sqrt{4} \times (-5 + 4! \times (-\sqrt{4} + 3!!)). \\
&= \sqrt{4} \times (-9 - 4! + 4! \times 3!!). \\
&= 2 \times (-(-1 + 5)! + 4! \times 3!!). \\
&= 8 \times ((2 + 5)! - 4 - 3!!).
\end{aligned}
\begin{aligned}
34536 &:= 3! \times (-4 + (5 + 3) \times 6!) = (6! \times (3 + 5) - 4) \times 3!. \\
34544 &:= (3 \times 4! \times 5! - 4) \times 4 = 4 \times (-4 + 5! \times 4! \times 3). \\
34602 &:= (-3 + 4! \times (6! + 0!!)) \times 2 = 2 \times ((0! + 6!) \times 4! - 3). \\
34629 &:= -3 + 4! \times (6! \times 2 + \sqrt{9}) = (\sqrt{9} + 2 \times 6!) \times 4! - 3. \\
34648 &:= (3!! + 4 + 6!) \times 4! - 8 = -8 + 4! \times (6! + 4 + 3!!). \\
34686 &:= (-3 + 4! + 6! \times 8) \times 6 = 6 \times (8 \times 6! + 4! - 3). \\
34702 &:= (3!! \times 4! + \sqrt{7! + 0!}) \times 2 = 2 \times (\sqrt{0! + 7!} + 4! \times 3!!). \\
34704 &:= ((4 - 0!)!! + 7! + 4!) \times 3! = (3! + \sqrt{4} \times (7 - 0!)!) \times 4!. \\
34728 &:= (3!! \times \sqrt{4} + 7) \times (\sqrt{2 \times 8})! = (8/2)! \times (7 + \sqrt{4} \times 3!!). \\
34734 &:= 3! + 4! \times (7 + 3!! \times \sqrt{4}) = (\sqrt{4} \times 3!! + 7) \times 4! + 3!. \\
34774 &:= (-3 \times 4! + 7!) \times 7 - \sqrt{4} = -\sqrt{4} + 7 \times (7! - 4! \times 3). \\
34797 &:= (-3 \times 4! + 7! + \sqrt{9}) \times 7 = 7 \times (\sqrt{9} + 7! - 4! \times 3). \\
34944 &:= (3!! + \sqrt{4 \sqrt{9}}) \times \sqrt{4} \times 4! = \sqrt{4} \times 4! \times ((\sqrt{9})!! + \sqrt{4^3}). \\
34968 &:= -3! \times (4 - \sqrt{9^6} \times 8) = (8 \times (6! + 9) - 4) \times 3!. \\
35272 &:= 3! + (5 + 2) \times (7! - 2) = (-2 + 7!) \times (2 + 5) + 3!. \\
35304 &:= (3 + 5)! - (3! + 0!)! + 4! = 4! - (0! + 3!)! + (5 + 3)!. \\
35424 &:= (3 + 5!) \times 4!/2 \times 4! = 4!/2 \times 4! \times (5! + 3). \\
36025 &:= (3!! + 6! + 0!) \times 25 = 5^2 \times (0! + 6! + 3!!). \\
36224 &:= (\sqrt{36} + 2)! - \sqrt{2^{4!}} = (4 \times 2)! - (-2 + 6)^{3!}. \\
36585 &:= -(3 + 6!) \times 5 + 8! - 5! = -5! + 8! - 5 \times (6! + 3). \\
36744 &:= 3 \times 6! \times (-7 + 4!) + 4! = 4! + (4! - 7) \times 6! \times 3. \\
36757 &:= (\sqrt{3^{16}} + 7! - 5) \times 7 = -7 \times (5 - 7! - 6^3). \\
36792 &:= (\sqrt{3^{16}} + 7!) \times (9 - 2) = (-2 + 9) \times (7! + 6^3). \\
36798 &:= -3 + 6 \times 7! + \sqrt{9^8} = 8! - 9! \times 7/6! + 3!. \\
36882 &:= (3 + 6) \times (\sqrt{8^8} + 2) = (2 + \sqrt{8^8}) \times (6 + 3). \\
37044 &:= (3 \times 7)^{0!+\sqrt{4}} \times 4 = 4 \times ((4 - 0!) \times 7)^3. \\
37296 &:= 37 \times 2 \times 9!/6! = 6^{(\sqrt{9})!} - 2 \times 7! + 3!. \\
37344 &:= (3!! \times (7 + 3!) - 4!) \times 4 = 4 \times (-4! + 3!! \times (7 + 3!)). \\
37424 &:= (-3!! + (7! - \sqrt{4}) \times 2) \times 4 = 4 \times (2 \times (-\sqrt{4} + 7!) - 3!!). \\
37435 &:= (3 + \sqrt{7^4}) \times 3!! - 5 = -5 + 3!! \times 4 \times (7 + 3!). \\
37748 &:= (-3!! + 77) \times 4 + 8! = 8! + 4 \times (77 - 3!!). \\
38148 &:= -3 \times ((\sqrt{\sqrt{81}}!! + 4) + 8! = 8! + (-4 - (\sqrt{1 + 8})!!) \times 3. \\
38184 &:= -3 \times (\sqrt{\sqrt{81}}!! + 8! + 4! = 4! + 8! - \sqrt{1 + 8} \times 3!. \\
38368 &:= -3!! - 8^3 - 6! + 8! = 8! - 6! - 3!! - 8^3. \\
38398 &:= -(3! + 8 \times 3!!)/\sqrt{9} + 8! = 8! - ((\sqrt{9})! + 3!! \times 8) / 3. \\
38525 &:= 3!! - 8! + 5^{2+5} = 5^{2+5} - 8! + 3!. \\
38598 &:= 3! \times (-8 - 5! + \sqrt{9^8}) = 8! - (\sqrt{9} + 5!) \times (8 + 3!). \\
38637 &:= -3 + 8! - 6!/3 \times 7 = -7/3 - 6 + 8! + 3. \\
38688 &:= -3 \times 8 \times 68 + 8! = 8! - 8 \times 68 \times 3. \\
38848 &:= -(3!! + 8 + 8) \times \sqrt{4} + 8! = 8! - \sqrt{4} \times (8 + 8 + 3!). \\
38948 &:= -(3! + 8)^{\sqrt{9}}/\sqrt{4} + 8! = 8! - \sqrt{\sqrt{4} \times 98^3}. \\
38955 &:= -3!! + 8! - (9 + 5!) \times 5 = -5 \times (5! + 9) + 8! - 3!. \\
38998 &:= -(3 + 8)^{\sqrt{9}} + 9 + 8! = 8! + 9 - (\sqrt{9} + 8)^3. \\
39024 &:= 3! \times (9 \times (0! + 2)!! + 4!) = (4! + (2 + 0!)!! \times 9) \times 3!. \\
39048 &:= (-3! \times 9 + 0!) \times 4! + 8! = 8! + 4! \times (0! - 9 \times 3!). \\
39258 &:= 3 \times \sqrt{9} \times (2 - 5!) + 8! = 8! - (5! - 2) \times \sqrt{9} \times 3. \\
39347 &:= (3^9 - 3!) \times \sqrt{4} - 7 = -7 + \sqrt{4} \times (3^9 - 3!). \\
39364 &:= 3^9/3 \times 6 - \sqrt{4} = -\sqrt{4} + 6 \times 3^9/3.
\end{aligned}$$

$$\begin{aligned}
39374 &:= (3^9 - 3 + 7) \times \sqrt{4} \\
39448 &:= (-3! \sqrt{9} + \sqrt{4}) \times 4 + 8! \\
39468 &:= -\sqrt{(3! + (\sqrt{9}!!) \times 4!) - 6!} + 8! = 8! - \sqrt{6 \times (4! + 9!/3)} \\
39528 &:= -3!! + (-9 + (5+2)!) \times 8 \\
39538 &:= -3^{(\sqrt{9})!} - 53 + 8! \\
39546 &:= -3! \times (9 + 5!) + (\sqrt{4} + 6!) \\
39548 &:= -3! \times (9 + 5!) + \sqrt{4} + 8! \\
39568 &:= -3 \times 9 - 5 - 6! + 8! \\
39655 &:= (3/\sqrt{9} + 6!) \times 55 \\
39784 &:= -3!!/9 \times 7 + 8! + 4! \\
39789 &:= 3 \times 9 \times 7 + 8! - (\sqrt{9}!!) \\
39798 &:= 3! \times (9!/7! + \sqrt{98}) \\
39808 &:= -(3!/\sqrt{9})^{8+0!} + 8! \\
39828 &:= (3 - 9) \times 82 + 8! \\
39837 &:= ((3!! - 9) \times 8 + 3) \times 7 \\
39858 &:= -3! \times (9 \times 8 + 5) + 8! \\
39864 &:= 3!!/\sqrt{9} + 8! - 6! + 4! \\
39884 &:= -3! \times 9 \times 8 + 8! - 4 \\
39896 &:= 3!!/9 + 8! - 9!/6! \\
39948 &:= (3! - 99) \times 4 + 8! \\
39988 &:= -3! \times 9 \times (\sqrt{9}!) + 8! - 8 \\
40175 &:= -4! - 0! + (1 + 7)! - 5! \\
40178 &:= -\sqrt{4} \times (0 + 1 + 7!) + 8! \\
40195 &:= -(4 + 0!)! + (-1 + 9)! - 5 \\
40258 &:= \sqrt{4} \times (0! - 2^5) + 8! \\
40268 &:= -40 - 2 \times 6 + 8! \\
40272 &:= 4 \times (-(0! + 2)! + 7!) \times 2 \\
40276 &:= 4 \times (0! + 2 \times (7! - 6)) \\
40296 &:= -4! - 0 + (2^{9-6})! \\
40312 &:= 4 \times ((0! + 3!)! - 1) \times 2 \\
40334 &:= \sqrt{4} \times (0! + 3!) + (3! + \sqrt{4})! \\
40335 &:= (4 + 0!) \times 3 + (3 + 5)! \\
40345 &:= 4! + 0! + (\sqrt{\sqrt{3^4}} + 5)! \\
40372 &:= 4 \times (0! + (3! + 7!) \times 2) \\
40395 &:= (4! + 0!) \times 3 + (\sqrt{9} + 5)! \\
40465 &:= 4! + 0! + (\sqrt{4} + 6)! + 5! \\
40528 &:= 4 \times (0 + 52) + 8! \\
40536 &:= (40/5)! + \sqrt{3^{16}} \\
40538 &:= \sqrt{4} + (0! + 5)^3 + 8! \\
40548 &:= -(4 - 0!)! + 5! \times \sqrt{4} + 8! \\
40562 &:= \sqrt{4} \times (0! + 5!) + (6 + 2)! \\
40568 &:= \sqrt{4} \times (0! + 5!) + 6 + 8! \\
40582 &:= 4! \times \sqrt{0! + 5!} + 8! - 2 \\
40698 &:= ((4 + 0!)! + 6) \times \sqrt{9} + 8! \\
40838 &:= (4 - 0!)! + 8^3 + 8! \\
40986 &:= -(4 - 0!)! \times 9 + 8! + 6! \\
41035 &:= (-\sqrt{4} + 10)! + 3!! - 5 \\
41348 &:= 4^{(-1+3)} + 4 + 8!
\end{aligned}
\begin{aligned}
&= \sqrt{4} \times (7 + 3^9 - 3) \\
&= 8! - 4 \times (\sqrt{4} + (\sqrt{9})!)^3 \\
&= 8! - \sqrt{6 \times (4! + 9!/3)} \\
&= 8 \times ((2+5)! - 9) - 3!! \\
&= 8! - 3!! - 59 - 3 \\
&= (\sqrt{64})! - (5! + 9) \times 3! \\
&= 8! + \sqrt{4} - (5! + 9) \times 3! \\
&= 8! - 6! - 5 - 9 \times 3 \\
&= 55 \times (6! + \sqrt{9}/3) \\
&= 4! + 8! - 7! / (\sqrt{9} \times 3) \\
&= -(\sqrt{9})!! + 8! + 7 \times 9 \times 3 \\
&= 8! - \sqrt{((\sqrt{9})! + 7!) \times 9 \times 3!} \\
&= 8! + 0 - 8^{9/3} \\
&= (-82 + 8! / (\sqrt{9})!) \times 3! \\
&= 7 \times (3 + 8 \times (-9 + 3!!)) \\
&= 8! - (5 + 8 \times 9) \times 3! \\
&= 4! - 6! + 8! + (\sqrt{9})!!/3 \\
&= -4 + 8! - 8 \times 9 \times 3! \\
&= 6!/9 + 8! - 9!/3!! \\
&= 8! - 4 \times (99 - 3!) \\
&= 8! - 8 - (\sqrt{9})! \times 9 \times 3! \\
&= -5! + (7 + 1)! - 0! - 4! \\
&= 8! + 71 \times (0 - \sqrt{4}) \\
&= -5^{(\sqrt{9})} + (10 - \sqrt{4})! \\
&= 8! - 5!/2 + 0 - \sqrt{4} \\
&= 8! - (6 + 20) \times \sqrt{4} \\
&= 2 \times (7! - (2 + 0!)!) \times 4 \\
&= ((-6 + 7!) \times 2 + 0!) \times 4 \\
&= ((-6 + 9)^2 - 0!)! - 4! \\
&= 2 \times ((1 + 3!)! - 0!) \times 4 \\
&= (\sqrt{4^3})! + (3! + 0!) \times \sqrt{4} \\
&= (5 + 3)! + 30/\sqrt{4} \\
&= \sqrt{5^4} + (3 + 0! + 4)! \\
&= (2 \times (7! + 3!) + 0!) \times 4 \\
&= (5 + \sqrt{9})! + 3 \times (0! + 4!) \\
&= 5! + (\sqrt{64})! + 0! + 4! \\
&= 8! + (2 + 50) \times 4 \\
&= 6^3 + (5 - 0! + 4)! \\
&= 8! + 3^5 - 0! - 4! \\
&= 8! + \sqrt{4} \times (5! - (0! + \sqrt{4})!) \\
&= (2 + 6)! + (5! + 0!) \times \sqrt{4} \\
&= 8! + 6 + (5! + 0!) \times \sqrt{4} \\
&= -2 + 8! + \sqrt{5! + 0!} \times 4! \\
&= 8! + \sqrt{9} \times (6 + (0! + 4!)!) \\
&= 8! + 3! + 8^{0!+\sqrt{4}} \\
&= 6! + 8! - 9 \times (0! + \sqrt{4})! \\
&= -5 + 3!! + ((0! + 1) \times 4)! \\
&= 8! + 4^{3!-1} + 4
\end{aligned}
\begin{aligned}
41398 &:= -\sqrt{4} + (-1 + 3!!) \times 9 + 8! \\
41736 &:= (4 + 1)! - 7! + 3!!^6 \\
41762 &:= \sqrt{4} + (1 + 7)! + 6! \times 2 \\
41764 &:= 4 + (1 + 7)! + 6! \times \sqrt{4} \\
41784 &:= \sqrt{4} \times (-1 + 7)! + 8! + 4! \\
42456 &:= -4! + (\sqrt{\sqrt{2^{4!}}} - 5) \times 6! \\
42648 &:= (4!^2 + 6) \times 4 + 8! \\
42768 &:= (4! + 2 + 7) \times \sqrt{6^8} \\
43196 &:= -4 + 3!! \times (1 + 9) \times 6 \\
43203 &:= ((\sqrt{4} + 3!)^2 + 0!) \times 3 \\
43204 &:= (4 + 0!)!^2 \times 3 + 4 \\
43356 &:= -4! + (3 + 3!!) \times \sqrt{5 \times 6!} \\
43536 &:= -4! + \sqrt{3!! \times 5} \times (3! + 6!) \\
43676 &:= (-4 + 3!!) \times (67 - 6) \\
43769 &:= -4 \times 3!! - 7 + 6^{(\sqrt{9})!} \\
43915 &:= (\sqrt{4^3})! + ((\sqrt{9})!! - 1) \times 5 \\
43918 &:= -\sqrt{4} + 3!! \times ((\sqrt{9})! - 1) + 8! \\
43935 &:= (\sqrt{4^3})! + (\sqrt{9} + 3!!) \times 5 \\
43944 &:= 4! - 3!! \times \left( \sqrt{9} - \sqrt{\sqrt{\sqrt{4^{4!}}}} \right) = \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{9} \right) \times 3!! + 4! \\
44635 &:= (4 + 4)! + 6 \times 3!! - 5 \\
44764 &:= \sqrt{4} \times (4! + 7) \times (6! + \sqrt{4}) \\
44896 &:= 4^4 + 8! + (\sqrt{9})! \times 6! \\
44942 &:= (4 - 4! \times 9)^{\sqrt{4}} - 2 \\
45056 &:= 4^{5+0!} \times (5 + 6) \\
45099 &:= (-4! - 5 + (0! + (\sqrt{9})!!)) \times 9 \\
45189 &:= (-4! + 5 + (-1 + 8)!) \times 9 \\
45306 &:= ((6 + 0!)! - 3!) \times (5 + 4) \\
45315 &:= (4 + 5) \times ((3! + 1)! - 5) \\
45319 &:= 4 + (-5 + (3! + 1)!) \times 9 \\
45336 &:= -4! + (\sqrt{5 \times 3!} + 3) \times 6! \\
45355 &:= (4 + 5)!/(3 + 5) - 5 \\
45356 &:= -4 + 5! \times 3 \times (5! + 6) \\
45373 &:= -\sqrt{4} + (5 + 3 \times 7!) \times 3 \\
45375 &:= \sqrt{4 + 5} \times (3 \times 7! + 5) \\
45377 &:= 4! + (5 + 3)! + 7! - 7 \\
45395 &:= (\sqrt{4} + 5) \times (3!! \times 9 + 5) \\
45632 &:= -4^5 + 6^{3 \times 2} \\
45927 &:= ((4 + 5) \times 9)^2 \times 7 \\
45958 &:= -\sqrt{4} - 5! + (\sqrt{9})!! \times 5! - 8! \\
45964 &:= 4 - 5! + (\sqrt{9})!! \times 64 \\
45984 &:= (4! \times 5! - (\sqrt{9})!) \times 8 \times \sqrt{4} \\
45985 &:= ((\sqrt{4} + 5)! + 9!) / 8 - 5 \\
46016 &:= -(4 + 60) \times (1 - 6!) \\
46048 &:= (\sqrt{4} \times 6! - 0!) \times 4 \times 8 \\
46056 &:= -4! + 6! \times \sqrt{(-0! + 5)^6} \\
46072 &:= 4 \times (6! - 0! + 7!) \times 2
\end{aligned}
\begin{aligned}
&= 8! + 9 \times (3! - 1)! - \sqrt{4} \\
&= 6^{3!} - 7! + (1 + 4)! \\
&= 2 \times 6! + (7 + 1)! + \sqrt{4} \\
&= \sqrt{4} \times 6! + (7 + 1)! + 4 \\
&= 4! + 8! + (7 - 1)! \times \sqrt{4} \\
&= 6! \times (5! - \sqrt{4})/2 - 4! \\
&= 8! + (9 + 4!)^2 \times \sqrt{4} \\
&= 8! + 6! + 72 \times 4! \\
&= 6 \times (9 + 1) \times 3!! - 4 \\
&= 3 \times (0! + (2 + 3)!!^{\sqrt{4}}) \\
&= 4 + 3!!/2 \times (0! + 4)! \\
&= \sqrt{(6! \times 5) \times (3 + 3!!)} - 4! \\
&= (6 + 3!!) \times \sqrt{5 \times 3!!} - 4! \\
&= (67 - 6) \times (3!! - 4) \\
&= (\sqrt{9})^{16} - 7 - 3!! \times 4 \\
&= 5 \times (-1 + (\sqrt{9})!!) + (3! + \sqrt{4})! \\
&= 8! + (-1 + (\sqrt{9})!) \times 3!! - \sqrt{4} \\
&= 5 \times (3 + (\sqrt{9})!!) + (3! + \sqrt{4})! \\
&= 4! - 3!! \times \left( \sqrt{9} - \sqrt{\sqrt{\sqrt{4^{4!}}}} \right) = \left( \sqrt{\sqrt{\sqrt{4^{4!}}}} - \sqrt{9} \right) \times 3!! + 4! \\
&= -5 + 3!! \times (64 - \sqrt{4}) \\
&= (\sqrt{4} + 6!) \times (7 + 4!) \times \sqrt{4} \\
&= -6! + 9!/8 + 4^4 \\
&= -2 + (-4 + 9 \times 4!)^{\sqrt{4}} \\
&= (6 + 5) \times \sqrt{\sqrt{\sqrt{(-0! + 5)^4}}} \\
&= 9 \times (((\sqrt{9})! + 0!)! - 5 - 4!) \\
&= 9 \times ((8 - 1)! + 5 - 4!) \\
&= (4 + 5) \times ((3! + 0!)! - 6) \\
&= (-5 + (1 + 3)!) \times (5 + 4) \\
&= 9 \times ((1 + 3)!) - 5 + 4 \\
&= 63 \times 3! \times 5! - 4! \\
&= -5 + (5! + 3!!) \times 54 \\
&= (6 + 5!) \times 3 \times 5! - 4 \\
&= 3 \times (7! \times 3 + 5) - \sqrt{4} \\
&= (5 + 7! \times 3) \times \sqrt{5 + 4} \\
&= 7! - 7 + (3 + 5)! + 4! \\
&= (5 + 9 \times 3!!) \times (5 + \sqrt{4}) \\
&= 2^{3!} \times (6! - 5 - \sqrt{4}) \\
&= 7 \times ((2 - (\sqrt{9})!) - 5)^4 \\
&= -8! - 5! + (\sqrt{9})!! \times 5! - \sqrt{4} \\
&= \sqrt{46} \times (\sqrt{9})!! - 5! + 4 \\
&= \sqrt{4} \times 8 \times (-(\sqrt{9})! + 5! \times 4!) \\
&= \sqrt{5^8} + 9 \times (5 + \sqrt{4})! \\
&= (6! - 1) \times (0 + 64) \\
&= 8 \times 4 \times (-0! + 6! \times \sqrt{4}) \\
&= (65 - 0!) \times 6! - 4! \\
&= 2 \times (7! - 0! + 6!) \times 4
\end{aligned}$$

$$\begin{aligned}
46075 &:= \sqrt{4^6} \times (-0! + 7!) - 5 \\
46146 &:= \sqrt{4} + (6! + 1) \times \sqrt{4^6} \\
46208 &:= (\sqrt{4} + 6!) \times 2^{(\sqrt{0!+8})!} \\
46336 &:= (4 + 6!) \times (3!/3!)^6 \\
46368 &:= 4 \times (6! + 3^6) \times 8 \\
46584 &:= (4 + 6!) \times 5! - 8! + 4! \\
46593 &:= \sqrt{4} - 65 + (\sqrt{9})!^3 \\
46628 &:= -4! + 6^6 - \sqrt{2 \times 8} \\
46636 &:= -\sqrt{4} + 6^6 - 3 \times 6 \\
46672 &:= \sqrt{4} + 6^6 + 7 \times 2 \\
46674 &:= 4 + 6^6 + 7 \times \sqrt{4} \\
46704 &:= 4! + 6^{(7-0!)!} + 4! \\
46795 &:= \sqrt{4} \times 6! + 7! \times 9 - 5 \\
46818 &:= (\sqrt{4} + 6!) \times \sqrt{81} + 8! \\
46836 &:= \sqrt{4} \times 6!/8 + 3!^6 \\
46896 &:= (4! + 6) \times 8 + (\sqrt{9})!^6 \\
47038 &:= -\sqrt{4} + (7 + 0!)!/3! + 8! \\
47368 &:= (-4 + 7!! + 3!)^6 - 8 \\
47476 &:= (4 + 7) \times (-4 + 7! - 6!) \\
47488 &:= 4 \times 7 \times \sqrt{4^8} + 8! \\
47664 &:= (4! + 7!) \times 6 + 6! \times 4! \\
48096 &:= \sqrt{4} \times (\sqrt{8 + 0!})!! + (\sqrt{9})!^6 \\
48386 &:= \sqrt{4} + 8!/(-3 + 8) \times 6 \\
48388 &:= 4 + 8!/(-3 + 8) + 8! \\
48408 &:= 4! + 8!/(4 + 0!) + 8! \\
48936 &:= 4 \times ((8 + 9) \times 3!! - 6) \\
48955 &:= 4! \times (8 + 9) \times 5! - 5 \\
48958 &:= -\sqrt{4} + 8! + 9 \times 5! \times 8 \\
49224 &:= 4! \times (\sqrt{9} + \sqrt{2^{(-2+4!)}}) \\
49284 &:= (4! \times 9 - 2 + 8)^{\sqrt{4}} \\
49656 &:= -4! + (9 + \sqrt{6! \times 5}) \times 6! \\
49669 &:= -\sqrt{4} - 9 + 6! \times 69 \\
49697 &:= 4! + (\sqrt{9})!! \times 69 - 7 \\
49704 &:= 4! + (\sqrt{9})!! \times (\sqrt{7! + 0!} - \sqrt{4}) = (-\sqrt{4} + \sqrt{0! + 7!}) \times (\sqrt{9})!! + 4! \\
49729 &:= (4! \times 9 + 7)^{\sqrt{-2+(\sqrt{9})!}} \\
49923 &:= ((-4 + 9)! + 9)^2 \times 3 \\
49928 &:= (-\sqrt{4} + 9 \times 9)^2 \times 8 \\
49956 &:= (4 + (\sqrt{9})!!) \times (9 + \sqrt{5 \times 6!}) \\
50275 &:= -5! + (-0! + 2 \times 7!) \times 5 \\
50375 &:= (-5 + (-0! + 3) \times 7!) \times 5 \\
50384 &:= \sqrt{4} \times (-8 + (3! + 0!)! \times 5) \\
50395 &:= ((5 + 9) \times 3! - 0!) \times 5 \\
50765 &:= \sqrt{(5 \times 0)! + 7!} \times (6! - 5) \\
50907 &:= ((5 + 0!)! - \sqrt{9}) \times \sqrt{0! + 7!} \\
51373 &:= (5 + 1)! + 37^3 \\
51737 &:= 5! + \sqrt{1 + 7!} \times (3!! + 7) \\
51968 &:= 5! + (1 + 9 \times 6!) \times 8 \\
53424 &:= 53 \times 42 \times 4!
\end{aligned}
\begin{aligned}
&= -5 + (7 - 0!)! \times 64. \\
&= 64 \times (1 + 6!) + \sqrt{4}. \\
&= 8^{0+2} \times (6! + \sqrt{4}). \\
&= (6/3)^3! \times (6! + 4). \\
&= 8 \times (6! + 3^6) \times 4. \\
&= 4! - 8! + 5! \times (6! + 4). \\
&= 3!^{(\sqrt{9})!} - (5! + 6)/\sqrt{4}. \\
&= -(8/2)! + 6^6 - 4. \\
&= -6 \times 3 + 6^6 - \sqrt{4}. \\
&= 2 \times 7 + 6^6 + \sqrt{4}. \\
&= \sqrt{4} \times 7 + 6^6 + 4. \\
&= 4! + (-0! + 7)^6 + 4!. \\
&= -5 + 9 \times 7! + 6! \times \sqrt{4}. \\
&= 8! + (1 + 8) \times (6! + \sqrt{4}). \\
&= 6^{(\sqrt{\sqrt{9}})^3!} + 6!/4. \\
&= 6^{(\sqrt{9})!} + 8 \times (6 + 4!). \\
&= 8!/3! \times (0 + 7) - \sqrt{4}. \\
&= -8 + 6! + 3!^{(7-4)!}. \\
&= (-6! + 7! - 4) \times (7 + 4). \\
&= 8! + 8^4 \times 7/4. \\
&= 4! \times (6! + 6 + 7!/4). \\
&= \sqrt{6^{9+0!}} + (\sqrt{\sqrt{8^4}})!. \\
&= 6 \times 8!/(-3 + 8) + \sqrt{4}. \\
&= 8!/(8 - 3) + 8! + 4. \\
&= 8!/(0! + 4) + 8! + 4!. \\
&= 6! \times (3 + 9) + 8! - 4!. \\
&= -5 + 5! \times (9 + 8) \times 4!. \\
&= 8 \times 5! \times 9 + 8! - \sqrt{4}. \\
&= (\sqrt{\sqrt{4^{22}}} + \sqrt{9}) \times 4!. \\
&= (4! - 82 \times \sqrt{9})^{\sqrt{4}}. \\
&= 6 \times 5! \times 69 - 4. \\
&= -9 + 6! \times 69 - \sqrt{4}. \\
&= -7 + (\sqrt{9})!! \times 69 + 4!. \\
&= 4! + (\sqrt{9})!! \times (\sqrt{7! + 0!} - \sqrt{4}) = (-\sqrt{4} + \sqrt{0! + 7!}) \times (\sqrt{9})!! + 4!. \\
&= ((\sqrt{9} + 2)! - 7^{\sqrt{9}})^{\sqrt{4}}. \\
&= 3 \times ((2 + \sqrt{9})! + 9)^{\sqrt{4}}. \\
&= 8 \times (-2 + 9 \times 9)^{\sqrt{4}}. \\
&= (\sqrt{6! \times 5} + 9) \times ((\sqrt{9})!! + 4). \\
&= 5 \times (7! \times 2 - 0!) - 5!. \\
&= 5 \times (7! \times (3 - 0!) - 5). \\
&= (5 \times (0! + 3)! - 8) \times \sqrt{4}. \\
&= 5 \times (-0! + 3!! \times (9 + 5)). \\
&= (-5 + 6!) \times \sqrt{7! + (0/5)!}. \\
&= \sqrt{7! + 0!} \times (-\sqrt{9} + (0! + 5)!). \\
&= 37^3 + (1 + 5)! \\
&= (7 + 3!!) \times 71 + 5!. \\
&= 8 \times (6! \times 9 + 1) + 5!. \\
&= 424 \times (3! + 5!).
\end{aligned}
\begin{aligned}
53495 &:= -5^{3!} + 4!^{\sqrt{9}} \times 5 \\
53557 &:= (-5 + 3!^5 - 5!) \times 7 \\
53592 &:= (-5! + 3!)^5 \times (9 - 2) \\
53985 &:= -5 \times (3 - (\sqrt{9})!!/8 \times 5!) \\
53995 &:= 5 \times 3!! \times (9 + (\sqrt{9})!!) - 5 \\
54549 &:= (-5 + 4!) \times (5! \times 4! - 9) \\
54644 &:= (-5 + 4!) \times (6! \times 4 - 4) \\
54744 &:= (-5 \times 4! + 7^4) \times 4! \\
54864 &:= 5!^{\sqrt{4}} + 8! + 6 \times 4! \\
55375 &:= -5! + (5 + 3!) \times (7! + 5) \\
55435 &:= -5 + (5 + \sqrt{4})! \times (3! + 5) \\
55473 &:= \sqrt{5! + 5 - 4} \times (7! + 3) \\
56568 &:= 5! + (6^5 - 6!) \times 8 \\
56755 &:= (5 + 6) \times (7! + 5!) - 5 \\
57464 &:= 5! + 7 \times 4^6 \times \sqrt{4} \\
57602 &:= (5 \times (7! + 6!) + 0!) \times 2 \\
57624 &:= 5 \times (7! + 6!) \times 2 + 4! \\
57625 &:= (5 + (7! + 6!) \times 2) \times 5 \\
58325 &:= 5 + 8! + 3!! \times 25 \\
58929 &:= -\left(\sqrt{\sqrt{\sqrt{5^8}}}\right)! + 9^{2+\sqrt{9}} \\
59037 &:= -5 + 9^{(-0!+3)!} - 7 \\
59042 &:= -5 + 9^{0!+4} - 2 \\
59044 &:= -5 + 9^{(0/4)!+4} \\
59047 &:= 5 + 9^{0!+4} - 7 \\
59052 &:= 5 + (9 + 0)^5 - 2 \\
59163 &:= -3! + (6 - 1)! + 9^5 \\
59169 &:= 5! + 9^{\sqrt{16+9}} \\
59399 &:= -5! \times 9 + (-3! + 9)!/(\sqrt{9})! = (9! - (\sqrt{9})!)/3! - 9 \times 5!. \\
59439 &:= 5! + (9 \times 4 + 3)^{\sqrt{9}} \\
59649 &:= -5! + \sqrt{9^{0+4}} + (\sqrt{9})!! \\
59897 &:= (5! - \sqrt{9}) \times 8^{\sqrt{9}} - 7 \\
60384 &:= 6 \times ((0! + 3)! - 8) \times \sqrt{4} \\
60432 &:= ((6 + 0!)! - 4) \times 3! \times 2 \\
60475 &:= 6 \times \sqrt{0 + 4} \times 7! - 5 \\
60478 &:= 6 \times (0! + \sqrt{4} \times 7!) - 8 \\
60492 &:= 6 \times (0! + (\sqrt{49})!) \times 2 \\
60564 &:= (6! + 0!) \times (5! - \sqrt{6^4}) \\
60596 &:= (6! - (-0! + 5)! + 9!) / 6 \\
60624 &:= 6 \times ((0! + 6)! \times 2 + 4!) \\
62784 &:= 6 \times 2 \times (7! + 8 \times 4!) \\
63884 &:= (6 + 3!!) \times 88 - 4 \\
64795 &:= 6 \times (\sqrt{4} \times 7! + (\sqrt{9})!!) - 5 \\
66144 &:= (-6! + (6! - 1) \times 4!) \times 4 \\
66248 &:= 6! - 6 - 2 + 4^8 \\
66339 &:= (6 \times 6)^3 + 3^9 \\
66954 &:= -6 + 6! \times (95 - \sqrt{4}) \\
66955 &:= 6! \times (-\sqrt{6! + 9} + 5!) + 5 \\
68544 &:= (6! - (8 - 5)!) \times 4! \times 4
\end{aligned}
\begin{aligned}
&= -5 + 4!^{\sqrt{9}} \times 5. \\
&= -7 \times (5! + 5 - 3!) \\
&= (-2 + 9) \times (-5! + 3!) \\
&= (5! / 8 \times (\sqrt{9})!! - 3) \times 5. \\
&= 5 \times (\sqrt{9})!! \times (9 + 3!) - 5. \\
&= (-9 + 4! \times 5!) \times (4! - 5). \\
&= (-4 + 4 \times 6!) \times (4! - 5). \\
&= (\sqrt{4 \times 4})! \times (7^4 - 5!). \\
&= \sqrt{4!^6} + 8! + (\sqrt{4 + 5})!! \\
&= (5 + 7!) \times (3! + 5) - 5!. \\
&= (5 + 3!) \times (\sqrt{4 + 5})! - 5. \\
&= (3 + 7!) \times ((\sqrt{4 + 5}) + 5). \\
&= 8 \times (6^5 - 6!) + 5!. \\
&= -5 + (5! + 7!) \times (6 + 5). \\
&= 4^6 \times \sqrt{4} \times 7 + 5!. \\
&= 2 \times (0! + (6! + 7!) \times 5). \\
&= 4! + 2 \times (6! + 7!) \times 5. \\
&= (5 + 2 \times (6! + 7!)) \times 5. \\
&= 5^2 \times 3!! + 8! + 5. \\
&= \sqrt{9^{\sqrt{2+98}}} - 5!. \\
&= -7 + 3^{0!+9} - 5. \\
&= -2 - 4 - 0! + 9^5. \\
&= -4 - (4 \times 0)! + 9^5. \\
&= -7 + 4 + 0! + 9^5. \\
&= 2 + (5 \times 0)! + 9^5. \\
&= 5! + 9^{(-1+6)} - 3!. \\
&= 9^{\sqrt{6+19}} + 5!. \\
&= (9! - (\sqrt{9})!)/3! - 9 \times 5!. \\
&= (9 + 3! + 4!)^{\sqrt{9}} + 5!. \\
&= -(9 - 4)! + 6! + 9^5. \\
&= 7! / (\sqrt{9})! + 8 + 9^5. \\
&= \sqrt{4} \times (-8 + (3! + 0!)!) \times 6. \\
&= 2 \times 3! \times (-4 + (0! + 6)!). \\
&= -5 + 7! \times \sqrt{4} \times (0 + 6). \\
&= -8 + (7! \times \sqrt{4} + 0!) \times 6. \\
&= 2 \times ((9 - \sqrt{4})! + 0!) \times 6. \\
&= (4! + \sqrt{6! \times 5}) \times (0! + 6!). \\
&= (6! + 9! - (5 - 0!)!) / 6. \\
&= (4! + 2 \times (6 + 0!)!) \times 6. \\
&= (4! \times 8 + 7!) \times 2 \times 6. \\
&= -4 + 88 \times (3! + 6!). \\
&= -5 + (\sqrt{9})! \times (7! \times \sqrt{4} + 6!). \\
&= 4 \times (4! \times (-1 + 6!) - 6!). \\
&= -8 + 4^{2+6} + 6!. \\
&= (9 \times 3)^3 + 6^6. \\
&= (-4! + 5! - \sqrt{9}) \times 6! - 6. \\
&= -5 + (5! - \sqrt{\sqrt{9^6}}) \times 6!. \\
&= 4 \times 4! \times ((-5 + 8)!! - 6).
\end{aligned}$$

$$\begin{aligned}
69024 &:= 6 \times ((\sqrt{9})!! - 0!) \times 2^4 \\
69255 &:= (6! + 9) \times (-25 + 5!) \\
69404 &:= ((6! + \sqrt{9}) \times 4! - 0!) \times 4 \\
69595 &:= 6! + ((\sqrt{9})!! + 5) \times 95 \\
69786 &:= -6 \times (9 - 7!) + 8! - 6! \\
69798 &:= -6! + (-\sqrt{9} + 7!) \times ((\sqrt{9})! + 8) \\
69848 &:= 6 \times (\sqrt{9})!! - 8 + 4^8 \\
69864 &:= 6! \times 98 - 6! + 4! \\
70497 &:= (7! \times \sqrt{0+4-9}) \times 7 \\
70546 &:= (7! - 0!) \times (5 \times 4 - 6) \\
70582 &:= (-7! + \sqrt{0! + 5!} + 8!) \times 2 \\
70584 &:= 7! \times (0! + 5 + 8) + 4! \\
71273 &:= 7 \times (-1 + 2 \times 7!) + 3!! \\
71568 &:= 71 \times (5! + 6) \times 8 \\
71993 &:= -7 + (1 + 99) \times 3!! \\
72035 &:= (7 + 20 \times 3!!) \times 5 \\
72549 &:= (7 + 2)!/5 - 4! - \sqrt{9} \\
72576 &:= (7 + 2)!/5 \times (7 - 6) \\
72585 &:= (7 + 2) \times (5 + 8!)/5 \\
73079 &:= -7! + (3! - 0!)^7 - (\sqrt{9}) \\
73085 &:= -7! + (3! - 0!)^8/5 \\
73433 &:= -7 + 34 \times 3 \times 3!! \\
73435 &:= -5 + 3! \times (4! \times 3!! - 7!) \\
73474 &:= (7! - 3!! + \sqrt{4}) \times (-7 + 4!) \\
73745 &:= 7^3 \times (7!/4! + 5) \\
73975 &:= (7 \times 3!)^{\sqrt{9}} + 7 - 5! \\
74064 &:= 7! + 4 \times (-0! + 6!) \times 4! \\
74164 &:= 7! + 4 \times (1 + 6! \times 4!) \\
74304 &:= 7! \times 4! - 3!(0!+\sqrt{4})! \\
74448 &:= -7! + \sqrt{4} \times (-4!^{\sqrt{4}} + 8!) \\
74469 &:= (7 + 4 \times 4!) \times (6! + \sqrt{9}) \\
74873 &:= -7 + \sqrt{4} \times 8! + 7! - 3!! \\
75344 &:= 7! \times 5 \times 3 - 4^4 \\
75468 &:= -7! - 5! + \sqrt{4} \times (-6 + 8!) \\
75473 &:= -7 + 5 \times (-4! + 7! \times 3) \\
75495 &:= (7! - 5 - \sqrt{4}) \times \sqrt{9} \times 5 \\
75498 &:= -7! - 5! + \sqrt{4} \times (9 + 8!) \\
75585 &:= (7! \times 5 - 5) \times (8 - 5) \\
75593 &:= -7 + (5! - 5 \times \sqrt{9}) \times 3!! \\
75603 &:= (7! \times 5 \times (6 \times 0!)) \times 3 \\
75618 &:= (7! \times 5 + 6) \times \sqrt{1+8} \\
75635 &:= 7 \times (5 + 6! \times 3 \times 5) \\
75637 &:= 7 + 5 \times (6 + 3 \times 7!) \\
75834 &:= -7! + (5! + 8! - 3) \times \sqrt{4} \\
78352 &:= (-7 \times 8 + 3!!) \times (5! - 2) \\
79184 &:= (7! - 91) \times 8 \times \sqrt{4} \\
79195 &:= (7! \times \sqrt{9} - 1 + (\sqrt{9})!!) \times 5 \\
79198 &:= (7 - 9) \times (1 + (\sqrt{9})!! - 8!) \\
79335 &:= ((7! + 9) \times 3 + 3!!) \times 5 \\
&= ((4 + 2)! - 0!) \times 96. \\
&= (5! - 5^2) \times \sqrt{96}. \\
&= 4 \times (-0! + 4! \times (\sqrt{9} + 6!)). \\
&= -5 + ((\sqrt{9})!! + 5) \times 96. \\
&= -6! + 8! + (7! - 9) \times 6. \\
&= (8 + (\sqrt{9})!) \times (7! - \sqrt{9}) - 6!. \\
&= -8 + 4^8 + (\sqrt{9})! \times 6!. \\
&= -4! + (6! + 8) \times 96. \\
&= 7 \times (-9 + \sqrt{4} \times (0 + 7)!). \\
&= (-6 + 4 \times 5) \times (-0! + 7!). \\
&= 2 \times (8! + \sqrt{5! + 0!} - 7!). \\
&= 4! + (8 + 5 + 0!) \times 7!. \\
&= 3!! + (7! \times 2 - 1) \times 7. \\
&= 8 \times (6 + 5!) \times \sqrt{1 + 7!}. \\
&= 3!! \times (9 + 91) - 7. \\
&= 5 \times ((3! - 0!)^2 + 7). \\
&= (\sqrt{\sqrt{9^4}})!/5 - 27. \\
&= (\sqrt{6 + 75})!/-2 + 7. \\
&= (5 + 8!)/5 \times (2 + 7). \\
&= -(\sqrt{9})! - 7! + (-0! + 3!)^7. \\
&= 5^{8-(0/3)!} - 7!. \\
&= 3!! \times 34 \times 3 - 7. \\
&= (-7! + 3!! \times 4!) \times 3! - 5. \\
&= (4! - 7) \times (\sqrt{4} - 3!! + 7!). \\
&= (-5 + (-4 + 6!) \times 3!!)/7. \\
&= -5! + (7 \times (\sqrt{9})!)^3 + 7. \\
&= 4 \times (6! - 0!) \times 4! + 7!. \\
&= (4! \times 6! + 1) \times 4 + 7!. \\
&= -(4 - 0!)^{3!} + 4! \times 7!. \\
&= (8! - 4!^{\sqrt{4}}) \times \sqrt{4} - 7!. \\
&= (\sqrt{9} + 6!) \times (4 \times 4! + 7). \\
&= -3!! - 7! + 8! \times \sqrt{4} - 7. \\
&= -4^4 + 3 \times 5 \times 7!. \\
&= (8! - 6) \times \sqrt{4} - 5! - 7!. \\
&= (3 \times 7! - 4!) \times 5 - 7. \\
&= 5 \times \sqrt{9} \times ((\sqrt{4} + 5!) - 7). \\
&= (8! + 9) \times \sqrt{4} - 5! - 7!. \\
&= (5 - 8) \times (5 - 5 \times 7!). \\
&= 3!! \times (-\sqrt{9} \times 5 + 5!) - 7. \\
&= 3 \times (0! + 6! \times 5 \times 7). \\
&= \sqrt{\sqrt{81}} \times (6 + 5 \times 7!). \\
&= (5 \times 3 \times 6! + 5) \times 7. \\
&= (7! \times 3 + 6) \times 5 + 7. \\
&= \sqrt{4} \times (-3 + 8! + 5!) - 7!. \\
&= (-2 + 5!) \times (3!! - 8 \times 7). \\
&= \sqrt{4} \times (8! - 1 - (\sqrt{9})!! - 7). \\
&= 5 \times ((\sqrt{9})!! - 1 + \sqrt{9} \times 7!). \\
&= (8! - (\sqrt{9})!! - 1) \times (9 - 7). \\
&= 5 \times (3!! + 3 \times (9 + 7!!)). \\
&= (7! - \sqrt{9} \times 4!) \times (8 + 8). \\
&= 7! - ((\sqrt{9})!! - 5^6) \times 5 \\
&= (7 - (\sqrt{9})!!) \times (8 - 5!) - 3 \\
&= (7 - (\sqrt{9})!!) \times (8 - 5!) - \sqrt{4} \\
&= (7 - (\sqrt{9})!!) \times (8 - 5!) + \sqrt{9} \\
&= -7 + (-9 + ((\sqrt{9})! - 1)) \times 3!! \\
&= 7 + (\sqrt{9})!! \times (-9 + (-2 + 7)!) \\
&= (8! - (0 + 3)!!/5) \times 2 \\
&= (8! - (-0! + 3!)! - \sqrt{(9)}) \times \sqrt{4} \\
&= (8! + 0! - (4 + 0!)!) \times 2 \\
&= 4! + 2 \times (-4 + 0!)! + 8! \\
&= (8!/(0 + 4) - 4!) \times 8 \\
&= (8! + 0!) \times \sqrt{4} - 7 \times 4! \\
&= (-8! + 0! - 4! \times \sqrt{9}) \times 7 + 9! \\
&= (8! - 0! - 4! \times \sqrt{9}) \times \sqrt{4} \\
&= -8! + 0! + 4! \times (-(\sqrt{9})! + 7!) \\
&= 8! - 0! - 5! + (-1 + 9)! \\
&= 8 + 0 - 5! + 2 \times 8! \\
&= (8! + 0 - 53) \times \sqrt{4} \\
&= (8! + 0! - 5 \times 7) \times 2 \\
&= -8 + \sqrt{-0! + 5} \times (8! - 4!) \\
&= (8! - (0 - 5 + 9)!) \times 2 \\
&= (8! + 0! - (-5 + 9)!) \times \sqrt{4} \\
&= 8! \times \sqrt{-0! + 5} - 9 \times 5 \\
&= (8! + 0! - 6) \times 2 - 5 \\
&= (8! - 0! - 6) \times \sqrt{-2 + 6} \\
&= (8! - 0! - 6 + 3) \times 2 \\
&= (8! - 0! + 6 + 6) \times 2 \\
&= (8 - 0!) \times 6 + (8! \times 2) \\
&= (8! - 0! + \sqrt{6 + 9}) \times 2 \\
&= (8! + \sqrt{(0 + 6)! + 9}) \times \sqrt{4} \\
&= 8! + (0! + 7!) + 5! - 5 \\
&= (\sqrt{(8 \times 0)! + 7!} + 8!) \times 2 \\
&= 8 \times (0! + 7! + 8) \times \sqrt{4} \\
&= (2 \times (9 + 7!) + 0!) \times 8 \\
&= (8! + \sqrt{0! + 7!} + (\sqrt{9})!) \times \sqrt{4} \\
&= (8! + 0! + 80) \times 2 \\
&= (80 + 8!) \times 2 + 4! \\
&= (8! - 1 - 3!) \times \sqrt{4} + 6! \\
&= -(8 - 1)! + 3!! \times 5! - 5 \\
&= -\sqrt{\sqrt{81}} + 3!! \times (5! - 7) \\
&= 8! - (1 + (\sqrt{9})!)! + 3!^6 \\
&= 8! + 1 + (\sqrt{9})!^{3!} - 7! \\
&= ((8 - 2)! + 0! + 8!) \times 2 \\
&= (8! + 2 + (\sqrt{0! + 8})!!) \times \sqrt{4} \\
&= 8 + 2 \times (-0! + 8! + 6!) \\
&= 8 + 2 \times ((\sqrt{0! + 8})!! + 8!) \\
&= (8! + (\sqrt{8 + 0!})!!) \times 2 + 8. \\
&= (8 + 2 \times ((\sqrt{9})!! + (0! + 2)! + 8!).
\end{aligned}$$

$$\begin{aligned}
82284 &:= (822 + 8!) \times \sqrt{4} \\
82368 &:= 8! \times 2 + \sqrt{3!^6} \times 8 \\
82793 &:= 8! \times 2 - 7 + \sqrt{9} \times 3!! \\
82942 &:= 8^2 \times (\sqrt{9})!!^4 - 2 \\
82952 &:= 8 + (2 \times (\sqrt{9})!!/5)^2 \\
83304 &:= (8 - 3!!) \times (3 - (0! + 4)!!) \\
83488 &:= (-8 + 3!!) \times 4 + 8! + 8! \\
83544 &:= 8! + 3 \times 5! \sqrt[4]{4} + 4! \\
84952 &:= -8 + (\sqrt{4 \times 9})! \times (5! - 2) \\
84954 &:= -8 + \sqrt{4} + (\sqrt{9})!! \times (5! - \sqrt{4}) \\
84955 &:= (-8 - 4 + (\sqrt{9})!!) \times 5! + 5 \\
84996 &:= 8! \times \sqrt{4} + (\sqrt{9})! \times ((\sqrt{9})! + 6!) \\
85437 &:= (8! - 5!) \times \sqrt{4} - 3 + 7! \\
85448 &:= 8 + 5! \times ((4 + \sqrt{4})! - 8) \\
85456 &:= 8 \times (-5! + \sqrt{4}) + 5! \times 6! \\
85573 &:= 8 + 5 + 5! \times (-7 + 3!!) \\
85672 &:= -8 + 5! \times (6! - (\sqrt{7+2})!!) \\
85675 &:= (-8 + 5!) \times 6! + 7! - 5 \\
85705 &:= -8! + 5 \times (7! + 0!) \times 5 \\
85739 &:= 8! + 5 + (7! + 3!) \times 9 \\
85792 &:= -8 + 5! \times (-7 + (\sqrt{9})!! + 2) \\
85928 &:= 8 + 5! \times ((\sqrt{9})!! - \sqrt{2 \times 8}) \\
86154 &:= (-8 + 6!) \times (1 + 5!) + \sqrt{4} \\
86354 &:= -8 \times 6 + 3!! \times 5! + \sqrt{4} \\
86386 &:= -8 + 6! \times (-3 + 8)! - 6 \\
86389 &:= -8 + 6! \times (-3 + 8)! - \sqrt{9} \\
86393 &:= -8 + (6 + 3!! \times (\sqrt{9})!!)/3! \\
86398 &:= -8 + 6 + 3!! \times (-\sqrt{9} + 8)! \\
86424 &:= (8! + 6! \times 4) \times 2 + 4! \\
86448 &:= 8 \times 6! + \sqrt{4} \times (4! + 8!) \\
86456 &:= -8 + 64 + 5! \times 6! \\
86475 &:= (8 + 6! \times 4! + 7) \times 5 \\
86506 &:= -8 - 6 + 5! \times (0! + 6!) \\
86592 &:= (8 + 6! \times 5) \times ((\sqrt{9})! - 2)! \\
86949 &:= 8! + 6(\sqrt{9})! - 4! - \sqrt{9} \\
86964 &:= 8! + 6(\sqrt{9})! - 6 \times \sqrt{4} \\
86977 &:= 8! + 6(\sqrt{9})! + 7/2 \\
86982 &:= 8 + 6(\sqrt{9})! + 8! - 2 \\
86997 &:= 8! + 6(\sqrt{9})! + \sqrt{9} \times 7 \\
87384 &:= 8! \times 7/3! + 8! + 4! \\
89472 &:= 8! + \sqrt{9} \times 4^{\sqrt{2}} \\
89537 &:= (8 + (\sqrt{9})!!) \times (5! + 3) - 7 \\
89568 &:= (8! + (\sqrt{9})!!)/5 \times 6 + 8! \\
89659 &:= -8 + \sqrt{9^6} \times (5! + \sqrt{9}) \\
89956 &:= -8 + ((\sqrt{9})!! - (\sqrt{9})!) \times (5! + 6) = (6 + 5!) \times ((\sqrt{9})!! - (\sqrt{9})!) - 8. \\
89992 &:= -8 - (\sqrt{9})!! + 9!/((\sqrt{9})! - 2) = (2 + \sqrt{9})^{\sqrt{9}} \times (\sqrt{9})!! - 8. \\
90125 &:= ((\sqrt{9})!! + 0!) \times 125 = 5^{2+1} \times (0! + (\sqrt{9})!!).
\end{aligned}
\begin{aligned}
&= \sqrt{4} \times (822 + 8!). \\
&= 8 \times 6^3 + 2 \times 8!. \\
&= 3 \times (\sqrt{9})!! - 7 + 2 \times 8!. \\
&= -2 + 4! \sqrt{9} \times (-2 + 8). \\
&= (2^5 \times 9)^2 + 8. \\
&= ((4 + 0!)!! - 3) \times (3!! - 8). \\
&= 8! + 8! + 4 \times (3!! - 8). \\
&= 4! + (-4 + 5!) \times (\sqrt{\sqrt{3^8}})!! \\
&= (-2 + 5!) \times (\sqrt{9 \times 4})! - 8. \\
&= (-\sqrt{4} + 5!) \times (\sqrt{9})!! + \sqrt{4} - 8. \\
&= -5 + 5! \times ((\sqrt{9})!! - 4 - 8). \\
&= 6 \times ((\sqrt{9})! + (\sqrt{9})!!) + \sqrt{4} \times 8!. \\
&= 7! - 3 + \sqrt{4} \times (-5! + 8!). \\
&= (-8 + (4 + \sqrt{4})!) \times 5! + 8. \\
&= 6! \times 5! + (\sqrt{4} - 5!) \times 8. \\
&= (3!! - 7) \times 5! + 5 + 8. \\
&= ((\sqrt{2+7})!! - 6) \times 5! - 8. \\
&= -5 + 7! + 6! \times (5! - 8). \\
&= 5 \times (0! + 7!) \times 5 - 8!. \\
&= 9 \times (3! + 7!) + 5 + 8!. \\
&= (2 + (\sqrt{9})!! - 7) \times 5! - 8. \\
&= (-8/2 + (\sqrt{9})!!) \times 5! + 8. \\
&= \sqrt{4} + (5! + 1) \times (6! - 8). \\
&= \sqrt{4} + 5! \times 3!! - 6 \times 8. \\
&= 6! \times (8 - 3)! - 6 - 8. \\
&= -\sqrt{9} + (8 - 3)! \times 6! - 8. \\
&= (3! + (\sqrt{9})!! \times 3!!)/6 - 8. \\
&= (8 - \sqrt{9})! \times 3!! + 6 - 8. \\
&= 4! + 2 \times (4 \times 6! + 8!). \\
&= ((8! + 4!)/4 + 6!) \times 8. \\
&= 6! \times 5! + 4 \times (6 + 8). \\
&= 5 \times (7 + 4! \times 6! + 8). \\
&= (6! + 0!) \times 5! - 6 - 8. \\
&= (2 + (\sqrt{9})!!) \times 5! - 6 \times 8. \\
&= -\sqrt{9} - 4! + (\sqrt{9})!^6 + 8!. \\
&= -\sqrt{4} \times 6 + (\sqrt{9})!^6 + 8!. \\
&= 7/7 + (\sqrt{9})!^6 + 8!. \\
&= (-2 + 8)^{(\sqrt{9})!} + 6 + 8!. \\
&= 7 \times \sqrt{9} + (\sqrt{9})!^6 + 8!. \\
&= 4! + 8!/3! \times 7 + 8!. \\
&= \sqrt{2^7 \times 4} \times \sqrt{9} + 8!. \\
&= -7 + (3 + 5!) \times ((\sqrt{9})!! + 8). \\
&= (8! + 6!)/5 \times (\sqrt{9})! + 8!. \\
&= (\sqrt{9} + 5!) \times (6! + 9) - 8. \\
&= (6 + 5!) \times ((\sqrt{9})!! - (\sqrt{9})!) - 8. \\
&= (2 + \sqrt{9})^{\sqrt{9}} \times (\sqrt{9})!! - 8. \\
&= 5^{2+1} \times (0! + (\sqrt{9})!!).
\end{aligned}
\begin{aligned}
90592 &:= ((\sqrt{9})!! - 0!) \times (5! + (\sqrt{9})!) - 2 = -2 - ((\sqrt{9})! + 5!) \times (0! - (\sqrt{9})!!). \\
90594 &:= (-9!/(0! + 5)! + 9!)/4 = (\sqrt{4 \times 9} + 5!) \times (-0! + (\sqrt{9})!!). \\
90648 &:= 9 \times ((0! + 6!) \times \sqrt{4} - 8) = (-8 + \sqrt{4} \times (6 + 0!)!!) \times 9. \\
90675 &:= 9 \times ((0! + 6!) + 7! - 5) = (-5 + 7! + (6 + 0!)!!) \times 9. \\
90704 &:= (9 \times (-0! + 7!) + 0!) \times \sqrt{4} = \sqrt{4} \times (0! + (7! - 0!) \times 9). \\
90718 &:= -\sqrt{9} + 0! + 7! \times 18 = (8! - 1 + 7!) \times (-0! + \sqrt{9}). \\
90734 &:= \sqrt{9} \times (0! + 7!) \times 3! - 4 = -4 + 3 \times (7! + 0!) \times (\sqrt{9})!. \\
90742 &:= (9 \times (0! + 7!) + \sqrt{4}) \times 2 = 2 \times (\sqrt{4} + (7! + 0!) \times 9). \\
90753 &:= ((\sqrt{9})! \times (0! + 7!) + 5) \times 3 = 3 \times (5 + (7! + 0!) \times (\sqrt{9})!). \\
90786 &:= (\sqrt{9} \times (0! + 7!) + 8) \times 6 = 6 \times (8 + (7! + 0!) \times \sqrt{9}). \\
90864 &:= (((\sqrt{9})! + 0!)!! + 8) \times (-6 + 4!) = (4! - 6) \times (8 + (0! + (\sqrt{9})!!)). \\
90936 &:= 9!/0! + \sqrt{9} + \sqrt{3!^6} = 6^3 + 9!/(0! + \sqrt{9}). \\
91437 &:= (\sqrt{9})!! \times (1 + 4!) - 3 + 7! = 7! + 3! \times (4 + 1!) - \sqrt{9}. \\
91566 &:= 6! + (6 + 5!) \times (1 + (\sqrt{9})!!) = ((\sqrt{9})!! + 1) \times (5! + 6) + 6!. \\
91974 &:= (9! - (1 + \sqrt{9})! - 7!)/4 = (-4! + 7! + 9!)/(1 + \sqrt{9}). \\
92288 &:= ((\sqrt{9})!! \times 2 + 2) \times 8 \times 8 = 8 \times 8 \times (2 + 2 \times (\sqrt{9})!!). \\
92364 &:= (9 + (2 + 3)!) \times (6! - 4) = (-4 + 6!) \times ((3 + 2)!! + 9). \\
93009 &:= (9 + (3! - 0!)!!) \times (0! + (\sqrt{9})!!) = ((\sqrt{9})!! + 0!) \times ((-0! + 3!) + 9). \\
93248 &:= 9!/3! + \sqrt{2^{4!}} \times 8 = -\sqrt{8^4} + 2 \times 3!(\sqrt{9})!. \\
93288 &:= (\sqrt{9})!^{3!} \times 2 - (\sqrt{8 + 8})! = -(\sqrt{8 + 8})! + 2 \times 3!(\sqrt{9})!. \\
93298 &:= (\sqrt{9})!^{3!} \times 2 - (\sqrt{9})! - 8 = -8 - (\sqrt{9})! + 2 \times 3!(\sqrt{9})!. \\
93315 &:= \sqrt{9} + 3!^{3!} \times \sqrt{(-1 + 5)} = \sqrt{5 - 1} \times 3!^{3!} + \sqrt{9}. \\
93544 &:= ((\sqrt{9})!^{3!} + 5! - 4) \times \sqrt{4} = \sqrt{4} \times (-4 + 5! + 3!(\sqrt{9})!). \\
93552 &:= ((\sqrt{9})! \times 3!^5 + 5!) \times 2 = 2 \times ((\sqrt{5 \times 5})! + 3!(\sqrt{9})!). \\
93564 &:= ((\sqrt{9})!^{3!} + 5! + 6) \times \sqrt{4} = \sqrt{4} \times (6 + 5! + 3!(\sqrt{9})!). \\
93591 &:= -9 + 3!! \times (5! + 9 + 1) = (1 + 9 + 5!) \times 3!! - 9. \\
93894 &:= (\sqrt{9})! \times ((-3 + 8)^{(\sqrt{9})!} + 4!) = (4! + (\sqrt{9} - 8)^{3!}) \times (\sqrt{9})!. \\
94976 &:= 9! - 4^9 - 7! - 6! = -6! - 7! + 9! - 4^9. \\
95237 &:= (9 + 5! + 2) \times (3!! + 7) = (7 + 3!!) \times (2 + 5! + 9). \\
95494 &:= (9 + 5! + 4) \times ((\sqrt{9})!! - \sqrt{4}) = (-\sqrt{4} + (\sqrt{9})!!) \times (4 + 5! + 9). \\
95745 &:= -\sqrt{9} \times 5 + 7! \times (4! - 5) = (-5 + 4!) \times 7! - 5 \times \sqrt{9}. \\
95755 &:= 95 \times 7!/5 - 5 = -5 + 5! \times 7 \times (5! - (\sqrt{9})!). \\
95976 &:= (9 + 5!) \times ((\sqrt{9 + 7})! + 6!) = (6! + (\sqrt{7 + 9})!) \times (5! + 9). \\
96558 &:= ((\sqrt{9})! + 6!) \times (5! + 5 + 8) = (8 + 5 + 5!) \times (6 + (\sqrt{9})!!). \\
96768 &:= ((\sqrt{9})! + 6)!!/(7! - 6!/8) = \sqrt{8^6} \times 7 \times \sqrt{6! + 9}. \\
96984 &:= -9!/6 + \sqrt{9^8} \times 4! = 4! \times (8 \times 9!/6! + 9). \\
97464 &:= ((\sqrt{9})!! + 7 \times \sqrt{4!^6}) - 4! = 4^6 \times 4! - 7!/(\sqrt{9})!. \\
97792 &:= 9 + 7^7 - 9! \times 2 = -2 \times 9! + 7^7 + 9. \\
98297 &:= \sqrt{9} \times 8^{2+\sqrt{9}} - 7 = -7 + (\sqrt{9})! \times 2^{8+(\sqrt{9})!}. \\
98328 &:= \sqrt{9} \times (8^{3+2} + 8) = (8^{2+3} + 8) \times \sqrt{9}. \\
98424 &:= (\sqrt{9} + 8^4 + 2) \times 4! = 4! \times (\sqrt{2^{4!}} + 8 - \sqrt{9}). \\
99024 &:= (\sqrt{9})!! + (\sqrt{9} + 0!)! \times \sqrt{2^{4!}} = 4! \times \sqrt{2^{(0!+\sqrt{9})!}} + (\sqrt{9})!!. \\
99355 &:= (\sqrt{9})!! \times (\sqrt{9} \times 3! + 5!) - 5 = -5 + (5! + 3 \times (\sqrt{9})!) \times (\sqrt{9})!. \\
99408 &:= (\sqrt{9})! \times ((\sqrt{9})!! \times (4! - 0!) + 8) = (8 + (-0! + 4!) \times (\sqrt{9})!!) \times (\sqrt{9})!. \\
99495 &:= (\sqrt{9^9} + 4! \times 9) \times 5 = 5 \times (9 \times 4! + \sqrt{9^9}). \\
99648 &:= \sqrt{(9 + 9)^6} \times 4! - 8! = -8! + 4! \times (6 \times \sqrt{9})^{\sqrt{9}}.
\end{aligned}$$

## 5.1 Selfie Numbers in Order of Digits

120 := $((1 + 2)! - 0!)!$ .	3972 := $3 + (9 \times 7)^2$ .	10072 := $-10 + (0! + 7!) \times 2$ .
127 := $-1 + 2^7$ .	4320 := $\sqrt{4} \times 3!! \times (2 + 0!)$ .	10078 := $(1 + 0!) \times (-0! + (\sqrt{\sqrt{7^8}})!)$ .
240 := $2 \times (4 + 0!)!$ .	4330 := $4 + 3! \times (3!! + 0!)$ .	10729 := $107^2 - (\sqrt{9})!!$ .
360 := $3! \times 60$ .	4331 := $(\sqrt{4} + 3!!) \times 3! - 1$ .	10785 := $(10! - 7!)/(8!5!)$ .
384 := $3! \times \sqrt{8^4}$ .	4363 := $43 + 6 \times 3!!$ .	10815 := $(1 + (\sqrt{0! + 8}))!! \times 15$ .
660 := $6! - 60$ .	4372 := $\sqrt{4} \times 3^7 - 2$ .	10944 := $(10 + 9) \times 4! \times 4!$ .
736 := $7 + 3^6$ .	4374 := $4 \times 3^7/\sqrt{4}$ .	11264 := $11 \times 2^{6+4}$ .
799 := $79 + (\sqrt{9})!!$ .	4480 := $(4 + 4)!/(8 + 0!)$ .	11349 := $(1 + (1 + 3!)!/4) \times 9$ .
1285 := $(1 + 2^8) \times 5$ .	4560 := $-4 \times 5! + (6 + 0!)!$ .	11495 := $\sqrt{11^4} \times 95$ .
1288 := $\sqrt{(1 + 2)!^8} - 8$ .	4608 := $\sqrt{4!^6/(0! + 8)}$ .	11520 := $(1 + 15) \times (2 + 0!)!!$ .
1294 := $-1 \times 2 + (\sqrt{9})!^4$ .	4795 := $-\sqrt{4} + 7! - \sqrt{9^5}$ .	12096 := $(1 + 2 + 0!)! \times 9!/6!$ .
1298 := $1 \times 2 + \sqrt{(\sqrt{9})!^8}$ .	4913 := $(\sqrt{4} \times 9 - 1)^3$ .	12240 := $(1 + 2)!! \times (2^4 + 0!)$ .
1673 := $-1 - 6 + 7!/3$ .	4970 := $(\sqrt{49})! - 70$ .	12850 := $(1 + 2^8) \times 50$ .
1679 := $1 + (-6 + 7!)/\sqrt{9}$ .	4973 := $-4^{\sqrt{9}} + 7! - 3$ .	12955 := $12 \times 9 \times 5! - 5$ .
1680 := $(1 + 6)!/\sqrt{8 + 0!}$ .	4974 := $-4^{\sqrt{9}} + 7! - \sqrt{4}$ .	12999 := $(1 + (2 + (\sqrt{9})!!) \times (\sqrt{9})!) \times \sqrt{9}$ .
1684 := $\sqrt{16} + 8!/4!$ .	4976 := $-4^{\sqrt{9}} + 7 \times 6!$ .	13440 := $(1 + 3 + 4)!/(4 - 0!)$ .
1764 := $1 \times (7 \times 6)^{\sqrt{4}}$ .	4979 := $-4^{\sqrt{9}} + 7! + \sqrt{9}$ .	13441 := $1 + (3! + \sqrt{4})!/(4 - 1)$ .
1944 := $1 \times \sqrt{9^4} \times 4!$ .	4991 := $-49 + ((\sqrt{9})! + 1)!$ .	13443 := $1 \times 3 + (4 + 4)!/3$ .
2139 := $-21 + 3 \times (\sqrt{9})!!$ .	4997 := $-49 + (\sqrt{9})! + 7!$ .	13448 := $(1 + (3! + \sqrt{4})!/4!) \times 8$ .
2187 := $(2 + 1^8)^7$ .	5090 := $50 + ((\sqrt{9})! + 0!)!$ .	13449 := $1 + ((3! + \sqrt{4})! + 4!)/\sqrt{9}$ .
2378 := $-23 + \sqrt{7^8}$ .	5177 := $5! + 17 + 7!$ .	13452 := $-1 - 3 + (-4 + 5!)^2$ .
2472 := $-2 \times 4! + 7!/2$ .	5280 := $5! \times 2 + (8 - 0!)!$ .	13489 := $1 + (3! \times 4! + 8!)/\sqrt{9}$ .
2496 := $(2 + 4!) \times 96$ .	5836 := $-6! + 3^8 - 5$ .	13560 := $(-1 + 3!)! \times (5! - 6 - 0!)$ .
2502 := $2 + 50^2$ .	5864 := $5! + 8 \times (6! - \sqrt{4})$ .	13577 := $(-1 + (\sqrt{3}!!/5)!/7!) / 7$ .
2592 := $2^5 \times 9^2$ .	6394 := $-6 + (3!/-9)^{\sqrt{4}}$ .	13583 := $-1 + 3!!/5 + 8!/3$ .
2737 := $(2 \times 7)^3 - 7$ .	6455 := $(6^4 - 5) \times 5$ .	13680 := $(13 + 6) \times (\sqrt{8 + 0!})!!$ .
2744 := $\sqrt{(2 \times 7)^{4+\sqrt{4}}}$ .	6475 := $6! \times (\sqrt{4} + 7) - 5$ .	13683 := $1 \times (3^6 + 8!)/3$ .
2746 := $2 + \sqrt{(7 \times \sqrt{4})^6}$ .	6480 := $6!^{\sqrt{4}}/80$ .	13695 := $\sqrt{(1 + 3)^{16} - 9 - 5!}$ .
2880 := $\sqrt{2 \times 8 \times (\sqrt{8 + 0!})!!}$ .	6495 := $(6^4 + \sqrt{9}) \times 5$ .	13817 := $(1 + 3)!^{\sqrt{\sqrt{81}}} - 7$ .
2995 := $-29 + 9!/5!$ .	6498 := $(6! + \sqrt{4}) \times 9!/8!$ .	13826 := $-1 + 3 + \sqrt{(8/2)^{16}}$ .
3249 := $(3!! + 2)/\sqrt{4} \times 9$ .	6552 := $(6 + 5!) \times 52$ .	13843 := $1 + 3^8 \times \sqrt{4} + 3!!$ .
3454 := $3!! \times 4!/5 - \sqrt{4}$ .	6840 := $(6! + 8!)/(4 - 0!)!$ .	13849 := $1 + 3 \times 8 + 4!^{\sqrt{9}}$ .
3528 := $(3! + 5!) \times 28$ .	7985 := $-79 + 8!/5$ .	13920 := $(-(1 + 3)! + (\sqrt{9})!!) \times 20$ .
3550 := $3!! \times 5 - 50$ .	8062 := $8!/(-0! + 6) - 2$ .	13943 := $-1 + 3!!/(\sqrt{9})! + 4!^3$ .
3564 := $3!! \times 5 - \sqrt{6^4}$ .	8064 := $8!/((0/6)! + 4)$ .	13949 := $(-1 + 3!)^{\sqrt{9}} + 4!^{\sqrt{9}}$ .
3565 := $-35 + 6! \times 5$ .	8065 := $(8! - 0! + 6)/5$ .	14320 := $-1 \times (4 - 3!!) \times 20$ .
3590 := $3!! \times 5 - 9 - 0!$ .	8397 := $8!/3 - \sqrt{9} - 7!$ .	14390 := $(-1 + \sqrt{4} \times 3!!) \times (9 + 0!)$ .
3630 := $(3! + 6!) \times (3! - 0!).$	8405 := $(8!/4! + 0!) \times 5$ .	14394 := $-(1 - 4)! - 3!! + 9!/4!$ .
3645 := $3(\sqrt{\sqrt{6^4}}) \times 5$ .	8644 := $(8 + 6! \times 4!)/\sqrt{4}$ .	14549 := $(-1 + 4)!! + 5 + 4!^{\sqrt{9}}$ .
3685 := $(3^6 + 8) \times 5$ .	8974 := $(8!/9 + 7) \times \sqrt{4}$ .	14640 := $(1 + 4 + 6)^4 - 0!$ .
3738 := $-3! + 7! - \sqrt{3!^8}$ .	9360 := $(\sqrt{9})!! \times (3! + 6 + 0!)!$ .	14665 := $1 + \sqrt{4!^6} + 6! + 5!$ .
3774 := $-3! + 7! - 7!/4$ .	9576 := $((\sqrt{9})! + 5!) \times 76$ .	14689 := $1 + 4! \times 68 \times 9$ .
3844 := $\sqrt{(38 + 4!)^4}$ .	9648 := $-(\sqrt{9})!! + 6^4 \times 8$ .	14739 := $1 \times (4! - 7)^3 \times \sqrt{9}$ .
3960 := $3! \times ((\sqrt{9})!! - 60)$ .	9894 := $-(\sqrt{9})! + (8! - (\sqrt{9})!!)/4$ .	14760 := $(-1 + 4) \times (7! - (6 - 0!)!!)$ .
	10000 := $100^{0!+0!}$ .	14784 := $(-14 + 7!/8) \times 4!$ .
	10024 := $100^2 + 4!$ .	14884 := $\sqrt{(1 + 4)! + \sqrt{\sqrt{8 + 8}}}$ .
		14906 := $(1 + 4)^{(\sqrt{9})!} + 0! - 6!$ .

$$\begin{aligned}
15120 &:= (1 + 5)! \times (1 + 20). \\
15121 &:= 1 + (5 + 1)! \times 21. \\
15123 &:= (1 + (-5 + 12)!) \times 3. \\
15125 &:= (1 + 5!) \times 125. \\
15424 &:= (1 + 5! \times \sqrt{4}) \times \sqrt{\sqrt{2^{4!}}}. \\
15504 &:= -1 - 5! + 5^{(0!+\sqrt{4})!}. \\
15506 &:= 1 - 5! + 5^{0+6}. \\
15544 &:= ((1 + 5)^5 - 4) \times \sqrt{4}. \\
15546 &:= (1 + 5)^5 \times \sqrt{4} - 6. \\
15549 &:= (1 + 5)^5 \times \sqrt{4} - \sqrt{9}. \\
15612 &:= -1 + 5^6 - 12. \\
15613 &:= 1 + 5^6 - 13. \\
15615 &:= 1 + 5^6 - \sqrt{1 + 5!}. \\
15617 &:= 1 \times 5^6 - 1 - 7. \\
15618 &:= 1 \times 5^6 + 1 - 8. \\
15620 &:= 1 + 5^6 - (2 + 0!)!. \\
15621 &:= -1 + 5^6 - 2 - 1. \\
15622 &:= 1 + 5^6 - 2 - 2. \\
15626 &:= 1 + 5^{6^2/6}. \\
15628 &:= 1 + 5^6 + \sqrt{\sqrt{2 \times 8}}. \\
15629 &:= -1 + 5^6 + 2 + \sqrt{9}. \\
15642 &:= 1 + 5^6 + 4^2. \\
15643 &:= 1 \times 5^6 + 4! - 3!. \\
15644 &:= -1 + 5^6 + 4! - 4. \\
15645 &:= 1 \times 5^6 + 4 \times 5. \\
15648 &:= -1 + 5^6 + (-4 + 8)!. \\
15650 &:= 1 + 5^6 + (5 - 0!)!. \\
15656 &:= 1 + 5^6 + 5 \times 6. \\
15662 &:= 1 + 5^6 + 6^2. \\
15667 &:= 1 \times 5^6 + 6 \times 7. \\
15674 &:= 1 \times 5^6 + \sqrt{7^4}. \\
15688 &:= -1 + 5^6 + 8 \times 8. \\
15697 &:= 1 \times 5^6 + 9!/7!. \\
15698 &:= 1 + 5^6 + 9 \times 8. \\
15746 &:= 1 + 5! + (7 - \sqrt{4})^6. \\
15753 &:= 1 + 5! + 7 + 5^{3!}. \\
15839 &:= -1 + (\sqrt{\sqrt{5^8}} - 3) \times (\sqrt{9})!!. \\
15949 &:= -\sqrt{(1 + 5!)^{\sqrt{9}}} + 4! \times (\sqrt{9})!!. \\
16224 &:= ((\sqrt{16})! + 2)^2 \times 4!. \\
16245 &:= (1 + 6!/2) \times 45. \\
16339 &:= (-1 + 6)^{3!} + 3!! - (\sqrt{9})!. \\
16343 &:= (-1 + 6)^{3!} - \sqrt{4} + 3!! . \\
16347 &:= -1 - 6 \times 3! + 4^7. \\
16349 &:= (-1 + 6)^{3!} + 4 + (\sqrt{9})!!. \\
16382 &:= \sqrt{\sqrt{16^{3!+8}}} - 2. \\
16383 &:= -1 + (6/3)^{8+3!}. \\
16408 &:= (\sqrt{16})! + 4^{(-0!+8)}. \\
16447 &:= -1 + 64 + 4^7.
\end{aligned}
\begin{aligned}
16704 &:= (\sqrt{16})! \times ((7 - 0)!! - 4!). \\
16783 &:= -(\sqrt{16})! + 7^{8-3}. \\
16791 &:= -16 + \sqrt{7^{9+1}}. \\
16795 &:= (-1 + 6 \times 7!/9) \times 5. \\
16799 &:= -1 + 6! \times 7!/(\sqrt{9})!^{\sqrt{9}}. \\
16805 &:= -\sqrt{\sqrt{16}} + (8 - 0!)^5. \\
16849 &:= 1 + \sqrt{6^8} \times (4 + 9). \\
16875 &:= 1 \times 68 + 7^5. \\
16885 &:= (1 - 6! + \sqrt{8^8}) \times 5. \\
17246 &:= -17 \times 2 + 4! \times 6!. \\
17263 &:= -17 + (-2 + 6!) \times 3!!.. \\
17459 &:= 17 \times (4^5 + \sqrt{9}). \\
17472 &:= 1 \times 7 \times (-4! + 7!/2). \\
17489 &:= 17 + 4! \times (8 + (\sqrt{9})!!). \\
17526 &:= 1 + 7^5 - 2 + 6!. \\
17528 &:= 1 + 7^5 + (-2 + 8)!. \\
17529 &:= 1 \times 7^5 + 2 + (\sqrt{9})!!.. \\
17533 &:= 1 \times 7^5 + 3! + 3!!.. \\
17536 &:= 1 \times 7^5 + 3^6. \\
17584 &:= 1 \times 7! + (5! - 8)^{\sqrt{4}}. \\
17647 &:= (1 + 7!/(6 - 4)) \times 7. \\
17688 &:= (17 + 6!) \times (\sqrt{8 + 8})!. \\
17849 &:= -\sqrt{1 + 7!} + 8! \times 4/9. \\
17944 &:= (1 + 7)!!/9 \times 4 + 4!. \\
17999 &:= -1 + (7 + 9 + 9) \times (\sqrt{9})!!. \\
18144 &:= (1 + 8)!!/((1 + 4) \times 4). \\
18145 &:= 1 + (\sqrt{81})!/(4 \times 5). \\
18396 &:= (-1 + 8^3) \times (\sqrt{9})! \times 6. \\
18432 &:= 18 \times 4^{3+2}. \\
18433 &:= 1 + 8 \times 4!^3/3!. \\
18450 &:= 18 \times (4^5 + 0!). \\
18479 &:= -1 + (8! \times 4 + 7!)/9. \\
18793 &:= 1 + 87 \times (\sqrt{9})!^{3!}. \\
19044 &:= 1 \times ((\sqrt{9})! \times (-0! + 4!))^{\sqrt{4}}. \\
19099 &:= (1 + 9)!!/(0! + 9 + 9). \\
19437 &:= (-1 + (\sqrt{9})!)!^{\sqrt{4}} - 3 + 7!. \\
19440 &:= 1 \times (\sqrt{9} + 4!) \times (4 - 0!)!!. \\
19453 &:= 19 \times 4^5 - 3. \\
19454 &:= 19 \times 4^5 - \sqrt{4}. \\
19456 &:= 19 \times \sqrt{\sqrt{4^{5!/6}}}. \\
19459 &:= 19 \times 4^5 + \sqrt{9}. \\
19539 &:= -1 \times (\sqrt{9})!!/5 + 3^9. \\
19628 &:= (-19 + 6!) \times 28. \\
19682 &:= -1 + \sqrt{\sqrt{\sqrt{9^{6 \times (8-2)}}}}. \\
19739 &:= (-1 + 9) \times 7 + 3^9. \\
19792 &:= (1 + \sqrt{9}) \times (7! - 92). \\
19800 &:= 1 \times (-(\sqrt{9})!! + 8!)/(0! + 0!). \\
19801 &:= 1 + (-(\sqrt{9})!! + 8!)/(0! + 1).
\end{aligned}
\begin{aligned}
19824 &:= 1 \times (-(\sqrt{9})!! + 8!)/2 + 4!. \\
20160 &:= 2^{0!+1} \times (6 + 0!)!. \\
20162 &:= 2 + (0! + 1 + 6)!!/2. \\
20164 &:= ((2 \times 0)!! + (1 + 6)!) \times 4. \\
20328 &:= ((2 + 0)!! + 3!!) \times 28. \\
20465 &:= (-2 - 0! + 4^6) \times 5. \\
20667 &:= 2 + (-0! + 6)^6 + 7!. \\
20738 &:= 2 + \sqrt{(-0! + 7 + 3!)^8}. \\
20882 &:= 2 + (\sqrt{0! + 8})!! + 8!/2. \\
20884 &:= (2 + 0)!! + (8 + 8!) / \sqrt{4}. \\
20909 &:= (20 + 9) \times (0! + (\sqrt{9})!!). \\
21184 &:= (2^{11} + 8!)/\sqrt{4}. \\
21579 &:= -21 + 5 \times (7! - (\sqrt{9})!!). \\
21594 &:= -(2 + 1)! + 5! \times (\sqrt{9})!!/4. \\
21598 &:= 2 \times (-1 + 5!) \times (\sqrt{9})!!/8. \\
21630 &:= (2 - 1 + 6!) \times 30. \\
22316 &:= -2 - 2 + 31 \times 6!. \\
22319 &:= -2/2 + 31 \times (\sqrt{9})!!. \\
23024 &:= (2 \times 3!! - 0!) \times 2^4. \\
23024 &:= 4^2 \times (-0! + 3!! \times 2). \\
23040 &:= (2 + 30) \times (4 - 0!)!!. \\
23298 &:= 2 + 32 \times ((\sqrt{9})!! + 8). \\
23330 &:= 2 + 3!^{3!}/(3 - 0!). \\
23332 &:= (2^3 + 3!^{3!})/2. \\
23335 &:= -2 + 3 \times (3 + 3!)^5. \\
23342 &:= 2 + (3!^{3!} + 4!)/2. \\
23354 &:= 2 + 3 \times 3!^5 + 4!. \\
23465 &:= (2 + 3!!)/\sqrt{4} \times 65. \\
23595 &:= (-2 + 35) \times ((\sqrt{9})!! - 5). \\
23669 &:= \sqrt{(23 + 6)^6} - (\sqrt{9})!!.. \\
23760 &:= -2 \times 3!! + 7! \times (6 - 0!). \\
23843 &:= 2 + 3^8 + 4! \times 3!!.. \\
24328 &:= ((2 + 4!) \times 3!)^2 - 8. \\
24334 &:= (2 + (4! - 3))^3 \times \sqrt{4}. \\
24389 &:= (24 - 3 + 8)^{\sqrt{9}}. \\
24390 &:= (2 + 4! + 3)^{\sqrt{9}} + 0!. \\
24431 &:= (\sqrt{2^{4!}} - 4!) \times 3! - 1. \\
24432 &:= (\sqrt{2^{4!}} - 4!) \times 3 \times 2. \\
24434 &:= (\sqrt{2^{4!}} - 4!) \times 3! + \sqrt{4}. \\
24453 &:= \sqrt{\sqrt{2^{4!}}} + (4! + 5)^3. \\
24456 &:= (\sqrt{2^{4!}} - 4 \times 5) \times 6. \\
24504 &:= (-2 + 4^5 - 0!) \times 4!. \\
24528 &:= (-2 + 4^5) \times (\sqrt{2 \times 8})!. \\
24538 &:= (\sqrt{2^{4!}} - 5) \times 3! - 8. \\
24546 &:= (2 + 4) \times (-5 + 4^6). \\
24565 &:= \sqrt{(-2 + 4! - 5)^6} \times 5. \\
24568 &:= 2^{\sqrt{4!+5!}} \times 6 - 8. \\
24598 &:= (\sqrt{2^{4!}} + 5) \times (\sqrt{9})! - 8. \\
24606 &:= (\sqrt{2^{4!}} + 6 - 0!) \times 6. \\
24612 &:= (\sqrt{2^{4!}} + 6) \times (1 + 2)..
\end{aligned}$$

$$\begin{aligned}
24696 &:= \sqrt{2^{4!}} \times 6 + (\sqrt{9})!!/6. \\
24739 &:= 2^4 + 7! + 3^9. \\
24960 &:= (2 + 4!) \times 960. \\
25135 &:= ((2 + 5)! - 13) \times 5. \\
25137 &:= 2 + 5 \times (-13 + 7!). \\
25200 &:= (2 + 5)! \times ((2 + 0!)! - 0!). \\
25344 &:= ((2 + 5)! + 3!)^4 \times 4. \\
25395 &:= ((2 + 5)! + 39) \times 5. \\
25397 &:= 2 + 5 \times (39 + 7!). \\
25668 &:= (-2 - 5 + 6!) \times \sqrt{\sqrt{6^8}}. \\
25790 &:= (-2 + 5! + 7!) \times ((\sqrt{9})! - 0!). \\
25893 &:= -3 \times 9 + 8! - 5!. \\
25914 &:= -(-2 + 5)! + 9!/14. \\
26364 &:= 26^3 \times 6/4. \\
26493 &:= (2 + 6)! - 4!^{\sqrt{9}} - 3. \\
26498 &:= 2 - (6 \times 4)^{\sqrt{9}} + 8!. \\
26499 &:= (2 + 6)! - 4!^{\sqrt{9}} + \sqrt{9}. \\
26638 &:= -(2 + 6!) + 6! \times 38. \\
26832 &:= (-(-2 + 6)! + 8!)/3 \times 2. \\
26879 &:= (-2 + 6 \times 8! - 7)/9. \\
26880 &:= ((2 + 6)! + 8!)/\sqrt{8 + 0!}. \\
26884 &:= 2 \times (6 + 8!) \times 8/4!. \\
26890 &:= 2 \times (6 + 8!/\sqrt{9} - 0!). \\
26891 &:= 2 \times (6 + 8!/\sqrt{9}) - 1. \\
26896 &:= 2 \times ((6 + 8!)/\sqrt{9} + 6). \\
26995 &:= (2 \times (6 + 9))^{\sqrt{9}} - 5. \\
26998 &:= -2 + (6 + 9)^{\sqrt{9}} \times 8. \\
27384 &:= (\sqrt{2 + 7})!! \times 38 + 4!. \\
27392 &:= 2^7 \times (3!^{\sqrt{9}} - 2). \\
27639 &:= 2^7 \times 6^3 - 9. \\
27746 &:= 2 \times (7 \times 7 + \sqrt{4!^6}). \\
27837 &:= -2 - \sqrt{7^8} + 3! \times 7!. \\
28320 &:= 2 \times (8!/3 + (2 + 0!)!!). \\
28438 &:= -2 + 8! - (4 \times 3)!/8!. \\
28544 &:= -2^8 + \sqrt{5!^4 \times 4}. \\
28563 &:= \sqrt{(3 \times 6 - 5)^8} + 2. \\
28576 &:= (2^8 + 5!) \times 76. \\
28640 &:= -(\sqrt{2 \times 8} - 6!) \times 40. \\
28671 &:= \sqrt{(2 \times 8)^6} \times 7 - 1. \\
28672 &:= \sqrt{(2 \times 8)^6 \times 7^2}. \\
28674 &:= \sqrt{(2 \times 8)^6} \times 7 + \sqrt{4}. \\
28704 &:= (-2^8 + 7!) \times (0! + \sqrt{4})!. \\
28775 &:= (2 + 8!/7 - 7) \times 5. \\
28790 &:= (-2 + 8!/7) \times ((\sqrt{9})! - 0!). \\
29280 &:= 2 \times (\sqrt{(9 + 2)^8} - 0!). \\
29281 &:= 2 \times \sqrt{(9 + 2)^8} - 1. \\
29282 &:= 2 \times (9 + 2)^{8/2}. \\
29284 &:= 2 + \sqrt{(9 + 2)^8} \times 4.
\end{aligned}
\begin{aligned}
29294 &:= 2 \times ((\sqrt{9})! + (2 + 9)^4). \\
29414 &:= (-2 + (\sqrt{9})!!) \times 41 - 4!. \\
29435 &:= \sqrt{29^4} \times 35. \\
29520 &:= ((-2 + 9)! - 5!) \times (2 + 0!)!. \\
29522 &:= 2 + (\sqrt{9})!! + 5!^2 \times 2. \\
29524 &:= (2 \times 9^5 - 2)/4. \\
29526 &:= 2 \times (\sqrt{9} + 5!)^2 + 6!. \\
29641 &:= -2 + (\sqrt{9} + 6!) \times 41. \\
29676 &:= (2 - 96 + 7!) \times 6. \\
29728 &:= -2^9 + 7! \times (-2 + 8). \\
29790 &:= ((-2 + (\sqrt{9})!!) + 7)^{\sqrt{9}} - 0!. \\
29952 &:= 2^{(\sqrt{9})!} \times 9 \times 52. \\
29979 &:= -29 \times 9 + 7! \times (\sqrt{9})!. \\
30270 &:= 3! \times ((0! + 2)! + 7! - 0!). \\
30312 &:= 3! \times ((0! + 3!)! + 12). \\
30360 &:= (3! - 0!)! + 3! \times (6 + 0!)!. \\
30532 &:= -3! + (0! + 5^3!) \times 2. \\
30624 &:= 3! \times ((0! + 6)! + \sqrt{\sqrt{2^{4!}}}). \\
30672 &:= 3! \times ((0! + 6)! + 72). \\
30792 &:= 3! \times ((0 + 7)! + 92). \\
30984 &:= \left( -3! + 0! + \sqrt{(\sqrt{9})!^8} \right) \times 4!. \\
31104 &:= \sqrt{3!^{11 \times 10}} \times 4. \\
31253 &:= 3 + 1 \times 2 \times 5^3!. \\
31256 &:= 3! + 1 \times 2 \times 5^6. \\
31684 &:= (31 \times 6 - 8)^{\sqrt{4}}. \\
31974 &:= 3! \times (1 + 9!/7!)^{\sqrt{4}}. \\
32085 &:= -3! + (2 + 0!)^8 \times 5. \\
32355 &:= 3^2 \times (3! \times 5 - 5). \\
32400 &:= ((3 \times 2)!/4)^{0!+0!}. \\
32424 &:= ((3 \times 2)!/4)^2 + 4!. \\
32445 &:= (3! + 2/\sqrt{4}) \times 45. \\
32490 &:= (3! + 2/\sqrt{4}) \times 90. \\
32548 &:= -(3 \times 2)^5 + 4 + 8!. \\
32759 &:= (3 - 2 + 7)^5 - 9. \\
32760 &:= (-3!/2 + 7!) \times (6 + 0!). \\
32765 &:= -3 + (2 \times 7 - 6)^5. \\
32772 &:= 3! \times (2 + 7!) + 7!/2. \\
32785 &:= (3 + 2 \times 7) + 8^5. \\
32804 &:= 3!^2 + 8^{0!+4}. \\
32848 &:= 3! - 2 \times 8^4 + 8!. \\
32888 &:= (3 + 2)! + 8 \times \sqrt{8^8}. \\
32977 &:= (-329 + 7!) \times 7. \\
32985 &:= (3!^2 + \sqrt{9^8}) \times 5. \\
32989 &:= (-3 + 2 + 9!)/(8 + \sqrt{9}). \\
32992 &:= (32 + 9!)/(9 + 2). \\
32994 &:= (3!/2 - 9) \times 94. \\
33124 &:= (3!/(3 + 1) + 2)^{\sqrt{4}}.
\end{aligned}
\begin{aligned}
33482 &:= 3!! - 3! + 4^8/2. \\
33485 &:= -3 + (3 \times \sqrt{4})! + 8^5. \\
33492 &:= 3 + (3!!/4 + \sqrt{9})^2. \\
33585 &:= (-3 + (3!! + 5!) \times 8) \times 5. \\
33741 &:= (-3!! + 3^7) \times (4! - 1). \\
33759 &:= -3 \times 3^7 + (5 + \sqrt{9})!. \\
33840 &:= 3!! \times 3! \times 8 - (4 \times 0)!. \\
33844 &:= 3!! + ((3!! + 8)/4)^{\sqrt{4}}. \\
33845 &:= 5 + 48 \times 3!! - 3!!.. \\
33876 &:= 3! \times (3! + 8!/7) - 6!. \\
33885 &:= 3! - 3^8 + 8! + 5!. \\
34344 &:= (3 + 4!) \times (3!^4 - 4!). \\
34425 &:= 3^4 \times 425. \\
34440 &:= 3!! \times 4! \times \sqrt{4} - (4 + 0!)!. \\
34445 &:= (3^4 + \sqrt{4})^{\sqrt{4}} \times 5. \\
34480 &:= (3!! \times 4! \times \sqrt{4}) - 80. \\
34492 &:= (-34 + 4! \times (\sqrt{9})!!) \times 2. \\
34550 &:= (3!! - 4! - 5) \times 50. \\
34632 &:= 3! \times (4 \times 6! + 3!) \times 2. \\
34650 &:= (-3 - 4! + 6!) \times 50. \\
34713 &:= (-3^4 + 7!) \times (1 + 3!). \\
34727 &:= (-3^4 + 7! + 2) \times 7. \\
34752 &:= 3 \times 4^7 - 5!. \\
34776 &:= (-3 \times 4! + 7!) \times 7!/6!. \\
34795 &:= 3!! + 47 \times ((\sqrt{9})!! + 5). \\
34839 &:= \sqrt{\sqrt{(3 + 4)^8} \times (3!! - 9)}. \\
34848 &:= (3!! - \sqrt{4} + 8) \times 48. \\
34950 &:= (3 - 4! + (\sqrt{9})!!) \times 50. \\
34956 &:= 3! \times (4! \times \sqrt{9^5} - 6). \\
34995 &:= 3 + 4! \times (\sqrt{9})! \times \sqrt{9^5}. \\
35037 &:= -3^5 + (0! + 3!) \times 7!. \\
35231 &:= (-3 + 52) \times (3!! - 1). \\
35270 &:= -3 + (5 + 2) \times (7! - 0!). \\
35273 &:= (-3!! + (5 \times 2)!) \times 7/3!!. \\
35328 &:= (3!!/5 - 3!) \times 2^8. \\
35344 &:= ((3! - 53) \times 4)^{\sqrt{4}}. \\
35378 &:= (3!! + 5 - 3) \times \sqrt{\sqrt{7^8}}. \\
35672 &:= (3 + 5 + 6!) \times 7^2. \\
35721 &:= 3^5 \times 7 \times 21. \\
35784 &:= 3! \times (-5! + \sqrt{78^4}). \\
35793 &:= 3 \times 97 \times (5! + 3). \\
35850 &:= (3!! + 5 - 8) \times 50. \\
35880 &:= 3!! - 5! + 8! - (8 - 0!)!. \\
35910 &:= (3!! \times 5 - 9) \times 10. \\
35928 &:= -3 \times 5! + 9!/(2 + 8). \\
35945 &:= 35 \times (\sqrt{9} + 4^5). \\
35949 &:= \sqrt{3!!/5} + (9 + 4!)^{\sqrt{9}}. \\
35950 &:= (3!! + 5 - (\sqrt{9})!) \times 50. \\
35970 &:= -3! \times (5 + (\sqrt{9})!) + (7 + 0!)!.
\end{aligned}$$

$$\begin{aligned}
35999 &:= \left( \sqrt{(3!! \times 5)^{\sqrt{9}}} - (\sqrt{9})! \right) / (\sqrt{9})!. \\
36000 &:= 3! \times 6000. \\
36007 &:= 3!! + (6 + 0!) \times (0! + 7!). \\
36049 &:= 3!! + (6! + 0!) \times 49. \\
36050 &:= ((\sqrt{36})! + 0!) \times 50. \\
36051 &:= -3!! + (6! + 0!) \times 51. \\
36150 &:= (3 + 6!) \times 1 \times 50. \\
36250 &:= (3 + 6! + 2) \times 50. \\
36284 &:= (3 + 6!)/(2 + 8) - 4. \\
36348 &:= -3 - \sqrt{63^4} + 8!. \\
36414 &:= (-3! + 6!)^{\sqrt{4}}/14. \\
36432 &:= (3^6 \times 4! + 3!!) \times 2. \\
36438 &:= (3! - 6^4 \times 3) + 8!. \\
36450 &:= 3^{\sqrt{\sqrt{6^4}}} \times 50. \\
36465 &:= (\sqrt{3^6} + 4!) \times (6! - 5). \\
36550 &:= (3!! + 6 + 5) \times 50. \\
36720 &:= 3!! + 6! \times (7^2 + 0!). \\
36850 &:= (3^6 + 8) \times 50. \\
36984 &:= 3!!/6 + 9 \times 8^4. \\
37179 &:= 3^7 \times (1 + 7 + 9). \\
37428 &:= -(3!! + 7! + 4!)/2 + 8!. \\
37467 &:= 3^7 + (\sqrt{4} + 6)! - 7!. \\
37485 &:= \sqrt{(3 \times 7)^4} \times 85. \\
37587 &:= 3^7 + 5! + 8! - 7!. \\
37752 &:= (3! + 7!/7) \times 52. \\
37794 &:= -3! + 7 \times (7! + (\sqrt{9})!!/\sqrt{4}). \\
37814 &:= 3! + 7! + 8^{1+4}. \\
37893 &:= -3^7 + 8! - (\sqrt{9})!!/3. \\
37899 &:= 3^7 \times (8 + 9) + (\sqrt{9})!!. \\
37998 &:= 3^{17} - (\sqrt{9})! \times (\sqrt{9} + 8!). \\
38127 &:= -3! + 8! - (1 + 2)^7. \\
38137 &:= 3 + 8! + 1 - 3^7. \\
38160 &:= 3!! \times (-8 + 1 + 60). \\
38162 &:= -3!! + 8! + (1 - 6!) \times 2. \\
38163 &:= 3 + 8! - 1 \times 6! \times 3. \\
38164 &:= 3!! + 8! + (1 - 6!) \times 4. \\
38169 &:= 3! + 8! + (1 - 6!) \times \sqrt{9}. \\
38304 &:= -3!! + 8! - 3!^{0+4}. \\
38394 &:= \sqrt{3!^8} \times (3!! - 9)/4!. \\
38405 &:= (3! + 8)^4 - \sqrt{0! + 5!}. \\
38408 &:= (3! + 8)^4 - 0 - 8. \\
38409 &:= (3! + 8)^4 - 0! - (\sqrt{9})!. \\
38413 &:= (3! + 8)^4 - 1 \times 3. \\
38414 &:= (3! + 8)^4 - 1 \times \sqrt{4}. \\
38415 &:= (3! + 8)^4 - 1^5. \\
38416 &:= (38 - 4!)^{\sqrt{16}}. \\
38417 &:= (3! + 8)^4 + 1^7. \\
38419 &:= (3! + 8)^4 + 1 \times \sqrt{9}.
\end{aligned}
\begin{aligned}
38424 &:= (3! + 8)^4 + 2 \times 4. \\
38434 &:= (3! + 8)^4 - 3! + 4!. \\
38437 &:= (3! + 8)^4 + 3 \times 7. \\
38475 &:= \sqrt{3^8} \times 475. \\
38479 &:= (3! + 8)^4 + 7 \times 9. \\
38496 &:= -3! \times (\sqrt{8^4} - 9 \times 6!). \\
38544 &:= (3! + \sqrt{(8 \times 5)^4}) \times 4!. \\
38638 &:= 3^8 \times 6 - 3!! - 8. \\
38646 &:= 3^8 \times \sqrt{\sqrt{6^4} - 6!}. \\
38694 &:= -3! + 8! - 6! \times 9/4. \\
38728 &:= -3!! - 872 + 8!. \\
38793 &:= -3^8 + 7! \times 9 - 3!. \\
38800 &:= -3!! + 8! - 800. \\
38808 &:= -3 \times 8!/80 + 8!. \\
38838 &:= 3! \times (-88 + 3^8). \\
38856 &:= (3^8 - 85) \times 6. \\
38874 &:= -3! + 8! - 8!/(7 \times 4). \\
38895 &:= -\sqrt{3!^8} + 8! - 9 - 5!. \\
38952 &:= \sqrt{(\sqrt{3!^8})} \times (9 \times 5! + 2). \\
38970 &:= -3!! + 8! - 9 \times 70. \\
38986 &:= -3 + 8! - \sqrt{(\sqrt{9} + 8)^6}. \\
38988 &:= -\sqrt{3!^8} - \sqrt{\sqrt{(\sqrt{9})^8} + 8!}. \\
39248 &:= 3!! \times 9 + \sqrt{2^{41}} \times 8. \\
39249 &:= (3!! + 9^2) \times 49. \\
39283 &:= 3^9 \times 2 - 83. \\
39294 &:= 3^9 \times 2 - \sqrt{9} \times 4!. \\
39297 &:= (3! \times (\sqrt{9})! - 2)^{\sqrt{9}} - 7. \\
39318 &:= 3! \times (9^{3+1} - 8). \\
39342 &:= (3^9 - 3 \times 4) \times 2. \\
39343 &:= 39 + 34^3. \\
39354 &:= 3! \times (\sqrt{9^{3+5}} - \sqrt{4}). \\
39358 &:= 3^9 \times (-3 + 5) - 8. \\
39360 &:= 3! \times (9 \times 3^6 - 0!). \\
39372 &:= (3 + 9 \times 3^7) \times 2. \\
39378 &:= -3!! - (\sqrt{9})! \times 37 + 8!. \\
39388 &:= (3! - 938) + 8!. \\
39402 &:= (3! + 9^4) \times (0! + 2)!. \\
39408 &:= 3! \times (9^4 - 0! + 8). \\
39412 &:= (3^9 + 4! - 1) \times 2. \\
39414 &:= (3^9 + 4!) \times 1 \times \sqrt{4}. \\
39494 &:= (3^9 + 4^{\sqrt{9}}) \times \sqrt{4}. \\
39495 &:= 3! \times 9^4 + 9 + 5!. \\
39550 &:= -3!! + (\sqrt{9} + 5)! - 50. \\
39570 &:= -3!! - (\sqrt{9})! \times 5 + (7 + 0!)!. \\
39590 &:= -3!! - 9 + (5 + \sqrt{9})! - 0!. \\
39654 &:= (3^9 + 6!/5) \times \sqrt{4}. \\
39799 &:= 39 + (-7! + 9!)/9.
\end{aligned}
\begin{aligned}
39840 &:= 3!!/\sqrt{9} + 8! - (4 - 0!)!. \\
39842 &:= 3^9 + (8! - \sqrt{4})/2. \\
39843 &:= 3^9 + 8!/(-4 + 3!). \\
39844 &:= 3^9 + (8! + \sqrt{4})/\sqrt{4}. \\
39848 &:= (-3!^{\sqrt{9}} + 8!) - \sqrt{4^8}. \\
39849 &:= 3^9 + 8!/\sqrt{4} + (\sqrt{9})!. \\
39924 &:= 3!! + 99^2 \times 4. \\
39930 &:= (3! + (\sqrt{9})!!) \times (9 \times 3! + 0!). \\
39954 &:= -3! + (\sqrt{9})!! \times (-9 + 5!)/\sqrt{4}. \\
39960 &:= (3!! - 9 \times (\sqrt{9})!) \times 60. \\
40088 &:= 4! - (0! + 0!)^8 + 8!. \\
40260 &:= (4 \times (0 + 2))! - 60. \\
40270 &:= -(4! + 0!) \times 2 + (7 + 0!)!. \\
40290 &:= -4! - (0! + 2)! + (9 - 0!)!. \\
40310 &:= (\sqrt{4^{0+3}})! - 10. \\
40355 &:= 40 + (3 + 5)! - 5. \\
40360 &:= 40 + (3 + 6 - 0!)!. \\
40378 &:= \sqrt{4} + (0! + 3!!) \times 7 \times 8. \\
40399 &:= -(4 \times 0)! + (3!! + 9!)/9. \\
40656 &:= ((4 - 0!)! + 6!) \times 56. \\
40688 &:= (40 + 6) \times 8 + 8!. \\
40788 &:= (4 - 0!)! \times 78 + 8!. \\
40829 &:= -4 + 0! + 8! + 2^9. \\
40879 &:= -(4 \times 0)! + 8! + 7!/9. \\
40984 &:= 4! + (0! + 9) \times 8^4. \\
41040 &:= (-\sqrt{4} + 10)! + (4 - 0!)!. \\
41338 &:= 4^{(-1+3!)} - 3! + 8!. \\
41344 &:= 4^{(-1+3!)} + (4 + 4)!!. \\
41463 &:= (4 - 1) \times (\sqrt{4^{16}} - 3). \\
41466 &:= (4 - 1) \times \sqrt{4^{16}} - 6. \\
41469 &:= (4 - 1) \times \sqrt{4^{16}} - \sqrt{9}. \\
41493 &:= 4! + (-1 + 4!^{\sqrt{9}}) \times 3. \\
41496 &:= 4! \times (1 + \sqrt{(4 \times \sqrt{9})^6}). \\
41758 &:= -\sqrt{4} + (-1 + 7)! \times 58. \\
41760 &:= (-4! + (-1 + 7)!) \times 60. \\
41998 &:= -\sqrt{4} + (1 + (\sqrt{9})!)!/\sqrt{9} + 8!. \\
42873 &:= -\sqrt{4} + (28 + 7)^3. \\
42879 &:= 4 + (28 + 7)^{\sqrt{9}}. \\
42960 &:= (-4 + (2 \times \sqrt{9})!) \times 60. \\
42975 &:= (4!^2 - \sqrt{9}) \times 75. \\
42984 &:= -4! + 2^9 \times 84. \\
42995 &:= (4! + 2 + 9)^{\sqrt{9}} + 5!. \\
43152 &:= (4! + (3!! - 1) \times 5!)!. \\
43205 &:= (4! \times 3!!/2 + 0!) \times 5. \\
43224 &:= 4! + 3!!^2 \times 2/4!. \\
43230 &:= (4! + 3!) \times (2 \times 3!! + 0!). \\
43260 &:= (4! + 3!!^2) \times (6! + 0!). \\
43320 &:= (\sqrt{4} + 3!!) \times 3 \times 20. \\
43328 &:= 4 \times (3!! + 32) + 8!. \\
43440 &:= (4 + 3!!)/\sqrt{4} \times (4 + 0!)!.
\end{aligned}$$

43452 :=  $(4! + (3!! + 4) \times 5!)/2.$   
 43562 :=  $(4 + 3!! + 5! \times 6!)/2.$   
 43564 :=  $4 + (3!! + 5! \times 6!)/\sqrt{4}.$   
 43593 :=  $-\sqrt{4} + 35^{\sqrt{9}} + 3!!.$   
 43599 :=  $4 + 35^{\sqrt{9}} + (\sqrt{9})!!.$   
 43631 :=  $(4!^3 + 6!) \times 3 - 1.$   
 43632 :=  $(4!^3 + 6!) \times 3!/2.$   
 43740 :=  $4 \times 3^7 \times (4 + 0!).$   
 43744 :=  $4 + 3^7 \times (4! - 4).$   
 43775 :=  $(4 \times 3^7 + 7) \times 5.$   
 43776 :=  $4! \times (-3 + 7)! \times 76.$   
 43856 :=  $-4^3 + 8! + 5 \times 6!.$   
 43920 :=  $(4^3 - \sqrt{9}) \times (2 + 0!)!!.$   
 43924 :=  $4 - 3!! \times (\sqrt{9} - \sqrt{\sqrt{2^{4!}}}).$   
 44298 :=  $442 \times 9 + 8!.$   
 44386 :=  $-4! + 4^{3!} + 8! - 6.$   
 44389 :=  $-4! + 4^{3!} + 8! + \sqrt{9}.$   
 44392 :=  $-4! + 4^{3!} + ((\sqrt{9})! + 2)!.$   
 44398 :=  $\sqrt{\sqrt{4^{3!}}} - 3 \times (\sqrt{9})! + 8!.$   
 44418 :=  $\sqrt{4} + 4^{(4-1)!} + 8!.$   
 44428 :=  $\sqrt{\sqrt{4^{3!}}} + 4!/2 + 8!.$   
 44438 :=  $4! - \sqrt{4} + 4^{3!} + 8!.$   
 44640 :=  $(4 + 4)! + 6 \times (4 - 0!)!!.$   
 44652 :=  $(4! + (4! + 6!) \times 5!)/2.$   
 44662 :=  $4! - \sqrt{4} + 6! \times 62.$   
 44938 :=  $(-\sqrt{\sqrt{4^{3!}}} + 9! + 3!!)/8.$   
 44998 :=  $(-4 \times (4 + (\sqrt{9})!!) + 9!)/8.$   
 45125 :=  $((4! - (5! - 1))^2) \times 5.$   
 45298 :=  $-(4 + 5!)/2 + 9!/8.$   
 45328 :=  $(\sqrt{4} + 5!) - 32 + 8!.$   
 45344 :=  $(4^5 + 3!!) \times (4! + \sqrt{4}).$   
 45398 :=  $(4^5 - 3!! + 9!)/8.$   
 45478 :=  $\sqrt{4} + 5! - 4 + 7! + 8!.$   
 45568 :=  $\sqrt{\sqrt{\sqrt{4^{5!/5}}}} \times (6! - 8).$   
 45576 :=  $-4! + 5! \times 5 \times 76.$   
 45598 :=  $-\sqrt{4} + 5! + 5! + 9!/8.$   
 45631 :=  $-4^5 + 6^{3!} - 1.$   
 45634 :=  $-4^5 + 6^{3!} + \sqrt{4}.$   
 45824 :=  $(-4 + (-5 + 8)!!) \times \sqrt{\sqrt{2^{4!}}}.$   
 45840 :=  $\sqrt{4} \times 5! \times (8 \times 4! - 0!).$   
 45945 :=  $(4^5 - \sqrt{9}) \times 45.$   
 45947 :=  $4 \times 5 + 9^4 \times 7.$   
 45978 :=  $(4! - 5! + 9! + 7!)/8.$   
 45990 :=  $((\sqrt{4} + 5)! + 9!)/(9 - 0!).$   
 45999 :=  $((\sqrt{4} + 5)! - 9) \times 9 + (\sqrt{9})!!.$   
 46104 :=  $4! + 6! \times \sqrt{\sqrt{(1 + 0!)^4!}}.$   
 46506 :=  $(-4! + 6^5 - 0!) \times 6.$

46512 :=  $(-4! + 6^5) \times (1 + 2)!.$   
 46616 :=  $-4! + 6^6 - 16.$   
 46630 :=  $4 + 6^6 - 30.$   
 46640 :=  $4! + 6^6 - 40.$   
 46650 :=  $-\sqrt{4} + 6^6 - 5 + 0!.$   
 46670 :=  $(\sqrt{4} - 6!) \times (6 - \sqrt{7! + 0!}).$   
 46690 :=  $4! + 6^6 + 9 + 0!.$   
 46699 :=  $46 + 6^{(\sqrt{9})!} - \sqrt{9}.$   
 46784 :=  $(4 + 6! + 7) \times \sqrt{8^4}.$   
 46992 :=  $-4! + 6^{(\sqrt{9})!} + (\sqrt{9})!!/2.$   
 46998 :=  $(\sqrt{4^{16}} + 9! - (\sqrt{9})!!)/8.$   
 47397 :=  $(4!^{7-3} + \sqrt{9})/7.$   
 47520 :=  $(4 + 7)!/(5! + (2 + 0!)!!).$   
 47524 :=  $(4 + 7 - 5!)^2 \times 4.$   
 47526 :=  $(4! + 7 - 5!)^2 \times 6.$   
 47548 :=  $4 \times (7 + (\sqrt{5! + 4!})!)/8!.$   
 47744 :=  $(\sqrt{4} + 7)!/7 - \sqrt{\sqrt{4^{4!}}}.$   
 47872 :=  $(-4^7 + 8 \times 7!) \times 2.$   
 47876 :=  $-4 + 7!/8 \times 76.$   
 48095 :=  $-\sqrt{4} + 8! + 0! + (\sqrt{9})!^5.$   
 48236 :=  $-4 + (8^2 + 3) \times 6!.$   
 48334 :=  $-\sqrt{4} + 3!^{3!} + 8!/4!.$   
 48355 :=  $-4! + 8! \times 3!/5 - 5.$   
 48360 :=  $-4! + 8! \times 3!/(6 - 0!).$   
 48385 :=  $4 + 8! - 3 + 8!/5.$   
 48488 :=  $-4! + 8! + 4^8/8.$   
 48528 :=  $(4! + 8!/5) \times (-2 + 8).$   
 48564 :=  $(4! \times 8!/5 + 6!)/4.$   
 48664 :=  $(-4 + 6!) \times 68 - 4!.$   
 48729 :=  $4^8 - 7^{2+\sqrt{9}}.$   
 49068 :=  $4 \times \sqrt{9^{0!+6}} + 8!.$   
 49147 :=  $-\sqrt{4} + \sqrt{9} \times (-1 + 4^7).$   
 49173 :=  $(4^{(\sqrt{9})!+1} + 7) \times 3.$   
 49368 :=  $(\sqrt{4 \times 9} + 3!!) \times 68.$   
 49374 :=  $(4! + 7!) \times 39/4.$   
 49456 :=  $49 \times 4^5 - 6!.$   
 49575 :=  $\sqrt{4^{(\sqrt{9})!+5}} + 7^5.$   
 49693 :=  $4 + 9 + 69 \times 3!!.$   
 49723 :=  $(4! \times 9 + 7)^2 - 3!.$   
 49770 :=  $(-\sqrt{4} + (\sqrt{9})!! - 7) \times 70.$   
 49896 :=  $-4! \times (\sqrt{\sqrt{9^8}} - \sqrt{9} \times 6!).$   
 50653 :=  $(-5 + (0! + 6)!/5!)^3.$   
 50745 :=  $(5!/(0! + 7))^4 + 5!.$   
 51425 :=  $(5! + 1) \times 425.$   
 51686 :=  $(-5! + 1 + 6!) \times 86.$   
 51960 :=  $5! + 1 \times 9!/(6 + 0!).$   
 51961 :=  $5! + 1 + 9!/(6 + 1).$   
 52488 :=  $(5 - 2 \times 4)^{8 \times 8}.$   
 52822 :=  $\sqrt{(5 + 2)^8} \times 22.$   
 53289 :=  $(5! - 3)^2 + 8! - (\sqrt{9})!!.$   
 53376 :=  $((5 + 3)! + 3^{17})/6.$   
 53448 :=  $(5! + 3^{4+4}) \times 8.$   
 53475 :=  $(-5 + 3!! - \sqrt{4}) \times 75.$   
 53742 :=  $(-5! + 3^7) \times (4! + 2).$   
 53880 :=  $5! \times \sqrt{(-3 + 8) \times 8! + 0!}.$   
 53883 :=  $5! + 3 + 8! + 8!/3.$   
 53886 :=  $5! + 3! + 8 \times 8!/6.$   
 53984 :=  $((5 \times 3!)^{\sqrt{9}} - 8) \times \sqrt{4}.$   
 53994 :=  $((5 \times 3!)^{\sqrt{9}} - \sqrt{9}) \times \sqrt{4}.$   
 54075 :=  $((\sqrt{5 + 4})!! + 0!) \times 75.$   
 54238 :=  $(5! - \sqrt{4})^2 - 3! + 8!.$   
 54244 :=  $(5! - \sqrt{4})^2 + (4 + 4)!.$   
 54248 :=  $(5! - \sqrt{4})^2 + 4 + 8!.$   
 54336 :=  $5! \times 4^3 + 3!^6.$   
 54375 :=  $(5 + (\sqrt{4} \times 3)!) \times 75.$   
 54476 :=  $(5! + 4^{14} - 7!)!/6.$   
 54675 :=  $\sqrt{(5 + 4)^6} \times 75.$   
 54678 :=  $(5 - 4! + 6!) \times 78.$   
 54715 :=  $5!^{\sqrt{4}} + (7 + 1)! - 5.$   
 54720 :=  $5!^{\sqrt{4}} + (7 + (2 \times 0)!)!!.$   
 54748 :=  $5!^{\sqrt{4}} + 7 \times 4 + 8!.$   
 54756 :=  $54 \times (7!/5 + 6).$   
 54768 :=  $5!^{\sqrt{4}} + (7! + 6) \times 8.$   
 54840 :=  $5!^{\sqrt{4}} + 8! + (4 + 0!)!!.$   
 54872 :=  $(5!/4 + 8)^{\sqrt{7+2}}.$   
 54979 :=  $-5 + (-4! + (\sqrt{9})!!) \times 79.$   
 55680 :=  $(-5!/5 + 6!) \times 80.$   
 55875 :=  $(5! + \sqrt{5^8}) \times 75.$   
 55948 :=  $5 + 5^{(\sqrt{9})!} - \sqrt{4} + 8!.$   
 56280 :=  $5! + 6! \times (-2 + 80).$   
 56644 :=  $(5! - 6/6)^{\sqrt{4}} \times 4.$   
 56649 :=  $5 + (-6 + 6!)^{\sqrt{4}}/9.$   
 56760 :=  $(5 + 6) \times (7! + (6 - 0!)!!).$   
 56950 :=  $-5^6 + 9!/5 - 0!.$   
 56951 :=  $-5^6 + 9!/5 \times 1.$   
 57480 :=  $-5! + (7 - 4)!! \times 80.$   
 57504 :=  $(-5 + 7^{(5-0)!}) \times 4!.$   
 57600 :=  $5 \times (7! + 6!) \times (0! + 0!)!!.$   
 57744 :=  $(5 + (7 \times 7)^{\sqrt{4}}) \times 4!.$   
 57845 :=  $5^7 - 8!/\sqrt{4} - 5!.$   
 57960 :=  $5! \times 7 \times (9 + 60).$   
 57969 :=  $(5! - 7) \times (9!/6! + 9).$   
 57974 :=  $5^7 + 9 - 7! \times 4.$   
 58119 :=  $-5! + 81 \times (-1 + (\sqrt{9})!!).$   
 58195 :=  $-5! + 81 \times (\sqrt{9})!! - 5.$   
 58344 :=  $(-5 + 8)!! \times 3^4 + 4!.$   
 58560 :=  $5! \times 8 \times (\sqrt{5 \times 6!} + 0!).$   
 58564 :=  $(5! + 8 + 5! - 6)^{\sqrt{4}}.$   
 58795 :=  $5 \times (8! - 7!)/\sqrt{9} - 5.$

$$\begin{aligned}
58799 &:= (5 \times (8! - 7!) - \sqrt{9})/\sqrt{9}. \\
58937 &:= -5! + 8 + \sqrt{9^{3+7}}. \\
58960 &:= (5 \times 8)^{\sqrt{9}} - (6 + 0!)!. \\
58962 &:= (5! \times 8 - 9) \times 62. \\
58969 &:= (-(-5 + 8)!! + 9^6)/9. \\
58982 &:= -58 + (\sqrt{9})!! \times 82. \\
58991 &:= -58 + \sqrt{9^{9+1}}. \\
58995 &:= -(5 + 8)! \times 9 + 9^5. \\
59050 &:= (5 + \sqrt{9} + 0!)^5 + 0!. \\
59054 &:= 5 + 9^{(0/5)!+4}. \\
59324 &:= (42 - 3)^{\sqrt{9}} + 5. \\
59352 &:= (-5! + 9!/3!!) \times (5! - 2). \\
59472 &:= (5! + (\sqrt{9})!) \times 472. \\
59554 &:= -5! + 9^5 + (5^4). \\
59635 &:= -5! + 9!/6 - 3!! - 5. \\
59640 &:= -5! + 9!/6 - (4 - 0!)!!. \\
59644 &:= (5^{(\sqrt{9})!} - 6!) \times 4 + 4!. \\
59664 &:= -5! + 9!/6 - 6! + 4!. \\
59784 &:= -5! + ((\sqrt{9})!)^7 - 8!)/4. \\
59956 &:= (-5! + 9! - 9!/5!)/6. \\
59975 &:= -5^{(\sqrt{9})!} + \sqrt{9} \times 7! \times 5. \\
59996 &:= (5! + 9!)/(\sqrt{9})! - 9!/6!. \\
60496 &:= ((6 - 0!)! - 4! + 9!)/6. \\
60593 &:= -6 - 0! + 5! + 9!/3!. \\
60696 &:= \sqrt{6^{0+6}} + 9!/6. \\
60984 &:= (6 + (\sqrt{0 + 9})!!) \times 84. \\
61285 &:= (6! + 1^2) \times 85. \\
62208 &:= 6^{2^2+0!} \times 8. \\
62436 &:= (62 + 4!) \times (3! + 6!). \\
62640 &:= 6! \times (2^6 + 4! - 0!). \\
63504 &:= (63 \times (5 - 0!))^{\sqrt{4}}. \\
63648 &:= 6 \times 3 \times 6^4 + 8!. \\
63888 &:= \left( 6 + \left( \sqrt{\sqrt{\sqrt{3^8}}} \right) !! \right) \times 88. \\
63945 &:= 63 \times (-9 + 4^5). \\
63985 &:= 6! \times (3!! - 9)/8 - 5. \\
63990 &:= ((6 - 3)!! - 9) \times 90. \\
63995 &:= (6!/(3 \times (\sqrt{9})!))^{\sqrt{9}} - 5. \\
64080 &:= 6! \times ((4 - 0)!!/8 - 0!). \\
64096 &:= -6! + 4^{(-0!+9)} - 6!. \\
64528 &:= ((\sqrt{64})!/5 + 2) \times 8. \\
64550 &:= (6^4 - 5) \times 50. \\
64620 &:= 6!/4 \times (6!/2 - 0!). \\
64638 &:= (-6^4 + 6! \times 3!!)/8. \\
64696 &:= (6! + 9!)/6 + 4^6. \\
64784 &:= -6! + (4^7 - 8) \times 4. \\
64796 &:= -6! - 4 + 7! + 9!/6. \\
64798 &:= (6!^{\sqrt{4}} - 7 - 9)/8. \\
64950 &:= (6^4 + \sqrt{9}) \times 50.
\end{aligned}
\begin{aligned}
65248 &:= -6!/5 \times 2 + 4^8. \\
65471 &:= -65 + 4^{7+1}. \\
65495 &:= (-6! - 5 + 4!^{\sqrt{9}}) \times 5. \\
65507 &:= 65/5 \times (-0! + 7!). \\
65520 &:= (6 + 5!) \times 520. \\
65548 &:= \sqrt{6 \times 5!/5} + 4^8. \\
66234 &:= -6 + 6! \times 23 \times 4. \\
66240 &:= 6! \times (6 - 2) \times (4! - 0!). \\
66246 &:= 6 + 6! \times 2 \times 46. \\
66816 &:= 6^6 + 8!/\sqrt{16}. \\
66960 &:= 6! \times (-\sqrt{6! + 9} + (6 - 0!)!). \\
67234 &:= 6 + 7^{2+3} \times 4. \\
67534 &:= -6 + 7! + 5^{3!} \times 4. \\
67680 &:= (6 + 7!/6) \times 80. \\
67968 &:= (\sqrt{6^{7+\sqrt{9}}} + 6!) \times 8. \\
68352 &:= 2^5 \times 3 \times (-8 + 6!). \\
68395 &:= (6! + 8! - 3)/\sqrt{9} \times 5. \\
68448 &:= (6! + 8) \times 4 + 4^8. \\
69465 &:= (69 + \sqrt{4!^6}) \times 5. \\
69714 &:= -6! + (-9 + 7!) \times 14. \\
69744 &:= 6! \times 97 - 4 \times 4!. \\
69759 &:= 69 \times (7!/5 + \sqrt{9}). \\
69770 &:= 6! \times 97 - 70. \\
69774 &:= (6 \times (\sqrt{9})!^7 - 7!)/4!. \\
69795 &:= 6! \times 97 - 9 \times 5. \\
69804 &:= (-6! + (\sqrt{9})!^{(8-0!)})/4. \\
69835 &:= 6! \times 98 - 3!! - 5. \\
69840 &:= 6! \times (98 - (4 \times 0)!). \\
69954 &:= 6 + 9 \times ((\sqrt{9})!^5 - 4). \\
69982 &:= 6 \times 9 \times \sqrt{(\sqrt{9})!^8} - 2. \\
69990 &:= 6 + 9 \times \sqrt{(\sqrt{9})!^{9+0!}}. \\
70560 &:= 70/5 \times (6 + 0!)!. \\
70993 &:= 7^{(\sqrt{0+9})!} - (\sqrt{9})!^{3!}. \\
72350 &:= (7 + 2 \times 3!!) \times 50. \\
72495 &:= -\sqrt{(7+2)^4} + 9!/5. \\
72538 &:= (7 + 2)!/5 - 38. \\
72546 &:= (7 + 2)!/5 - 4! - 6. \\
72551 &:= ((7 + 2)! - 5!)/5 - 1. \\
72552 &:= ((7 + 2)! - 5!)/\sqrt{5^2}. \\
72554 &:= ((7 + 2)! - 5!)/5 + \sqrt{4}. \\
72556 &:= (7 + 2)!/5 - 5!/6. \\
72564 &:= (7 + 2)!/5 - 6 \times \sqrt{4}. \\
72565 &:= (7 + 2)!/5 - 6 - 5. \\
72570 &:= (7 + 2)!/5 - 7 + 0!. \\
72577 &:= (7 + 2)!/5 + 7/7. \\
72582 &:= (7 + 2)!/5 + 8 - 2. \\
72584 &:= (7 + 2)!/5 + \sqrt{\sqrt{8^4}}.
\end{aligned}
\begin{aligned}
72594 &:= (7 + 2)!/5 + 9 \times \sqrt{4}. \\
72595 &:= 7 \times 2 + 5 + 9!/5. \\
72597 &:= (7 + 2)!/5 + \sqrt{9} \times 7. \\
72688 &:= 7 \times (2 + \sqrt{6^8}) \times 8. \\
73364 &:= (7 \times 3!)^3 - 6! - 4. \\
73368 &:= (7 \times 3!)^3 - \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)!. \\
73440 &:= (7! - 3!!) \times (4 \times 4 + 0!). \\
73959 &:= (7 \times 3!)^{\sqrt{9}} - 5! - 9. \\
73984 &:= ((7 + 3 \times 9) \times 8)^{\sqrt{4}}. \\
73994 &:= (7 \times 3!)^{\sqrt{9}} - 94. \\
73998 &:= (7 \times 3!)^{\sqrt{9}} - (\sqrt{9})!!/8. \\
74880 &:= -7! + \sqrt{4} \times 8! - (\sqrt{8 + 0!})!!. \\
74887 &:= 7 + \sqrt{4} \times 8! - 8!/7. \\
74896 &:= 7! + 4^8 + (\sqrt{9})! \times 6!. \\
74904 &:= (7^4 + (\sqrt{9})!!) \times (0 + 4!). \\
75168 &:= (7 + 51) \times \sqrt{6^8}. \\
75375 &:= (7!/5 - 3) \times 75. \\
75578 &:= -7 - (5! - 5! \times 7!)/8. \\
75600 &:= 7! \times 5 \times 6/(0! + 0!). \\
75615 &:= (7! - 5 + 6) \times 15. \\
75624 &:= 7! \times 5 \times 6/2 + 4!. \\
75685 &:= (7! \times 5! + 6!)/8 - 5. \\
75690 &:= (7! \times 5! + 6!)/(9 - 0!). \\
75975 &:= (75 + \sqrt{9} \times 7!) \times 5. \\
76335 &:= (7 + 6!) \times 3 \times 35. \\
76608 &:= 7^6 - 6! - 0! - 8!. \\
76609 &:= 7^6 - 6! - (-0! + 9!). \\
76832 &:= \sqrt{(7!/6!)^8} \times 32. \\
77329 &:= (7 \times 7)^3 - (2^{\sqrt{9}})!. \\
77957 &:= -7 \times (\sqrt{7 + 9})! + 5^7. \\
78047 &:= -78 + (0! + 4)^7. \\
78652 &:= 7 \times (8 + 6 - 5!)^2. \\
79233 &:= 7^{((\sqrt{9})!-2)} \times 33. \\
79524 &:= (7 \times \sqrt{9} + 5!)^2 \times 4. \\
79538 &:= (7^{(\sqrt{9})!} + 5)/3 + 8!. \\
79800 &:= -7!/(\sqrt{9})! + 8! \times (0! + 0!). \\
79802 &:= -7!/(\sqrt{9})! + (8! + 0!) \times 2. \\
79824 &:= -7!/(\sqrt{9})! + 8! \times 2 + 4!. \\
79899 &:= -7 \times (\sqrt{9} + 8!) - (\sqrt{9})!! + 9!. \\
79926 &:= -7! + ((\sqrt{9})! - (\sqrt{9})!!)^2/6. \\
79954 &:= (-7^{\sqrt{9}} + (\sqrt{9} + 5)!) \times \sqrt{4}. \\
80354 &:= (8! + 0! - 3!!/5) \times \sqrt{4}. \\
80384 &:= (8! - (-0! + 3)!) - 8) \times \sqrt{4}. \\
80400 &:= (8! - (0! + 4)!) \times (0! + 0!). \\
80484 &:= (-80 + \sqrt{4} + 8!) \times \sqrt{4}. \\
80522 &:= (8! + 0! - 5!/2) \times 2. \\
80532 &:= (8! - 0! - 53) \times 2. \\
80544 &:= (8!/\sqrt{-0! + 5} - 4!) \times 4. \\
80570 &:= 8! \times \sqrt{-0! + 5} - 70. \\
80599 &:= -8! - 0! + (-5! + 9!)/\sqrt{9}.
\end{aligned}$$

$$\begin{aligned}
80630 &:= (8! + 0! - 6) \times (3 - 0!). \\
80636 &:= (8! + 0!) \times 6/3 - 6. \\
80650 &:= (8! - 0! + 6) \times \sqrt{5 - 0!}. \\
80654 &:= (8! + 0! + 6!/5!) \times \sqrt{4}. \\
80760 &:= 8! + (0! + 7)! + (6 - 0!)!. \\
80800 &:= (80 + 8!) \times (0! + 0!). \\
81920 &:= 8^{1+\sqrt{9}} \times 20. \\
82560 &:= 8 \times 2 \times (5! + (6 + 0!)!). \\
82656 &:= (-8^2 + 6!) \times (5! + 6). \\
82896 &:= (-8 + (\sqrt{2} \times 8)^{\sqrt{9}}) \times 6. \\
82936 &:= -8 + (-2 + (\sqrt{9})!)^3 \times 6. \\
82937 &:= (8/2)^{\sqrt{9}} \times 3! - 7. \\
83328 &:= 8^2 \times (3! + \sqrt{3!^6}). \\
83384 &:= (8 + 3!)^3 + 8! \times \sqrt{4}. \\
83456 &:= -8^{3!} + 4 \times 5! \times 6!. \\
83584 &:= -8! + (3 \times 5! - 8)^{\sqrt{4}}. \\
83640 &:= (8 - 3)! \times (6! - 4! + 0!). \\
83656 &:= -\sqrt{(8 + 3!)^6} + 5! \times 6!. \\
83755 &:= (-8!/3!! + 7^5) \times 5. \\
83957 &:= 8 \times 3^{(\sqrt{9})!} + 5^7. \\
83994 &:= -8!/3! - (\sqrt{9})! + 9!/4. \\
84050 &:= (8!/4! + 0!) \times 50. \\
84672 &:= \sqrt{((8 + 4)^6)} \times 7^2. \\
84736 &:= 8! \times \sqrt{4} + (7 - 3)^6. \\
84743 &:= 8! \times \sqrt{4} + 7 + 4^{3!}. \\
84755 &:= (8 - \sqrt{4})! + 7^5 \times 5. \\
85440 &:= (-8 + (\sqrt{5 + 4})!) \times (4 + 0!)!. \\
85442 &:= (8! + (5 + \sqrt{4})^4) \times 2. \\
85560 &:= -8 \times 5! + 5! \times (6! + 0!). \\
85680 &:= (-8 + 5!) \times 6! + (8 - 0!)!. \\
85734 &:= (-8 + (5 \times 7)^3) \times \sqrt{4}. \\
86314 &:= -86 + 3!! \times (1 + 4!). \\
86400 &:= (8! + 6! \times 4) \times (0! + 0!). \\
86402 &:= (8! + 6! \times 4 + 0!) \times 2. \\
86404 &:= 8 + 6! \times (4 + 0!)! - 4. \\
86408 &:= 8 + 6! \times (40/8)!. \\
86440 &:= (8 + 6! \times 4!) \times (4 + 0!). \\
86528 &:= (-8 + 6! + 5!)^2/8. \\
86640 &:= (8 - 6 + 6!) \times (4 + 0!)!. \\
86938 &:= 8! + 6^{(\sqrt{9})!} - 38. \\
86956 &:= 8! + 6^{(\sqrt{9})!} - 5!/6. \\
86970 &:= 8! + 6^{(\sqrt{9})!} - 7 + 0!. \\
86984 &:= 8! + 6^{(\sqrt{9})!} + \sqrt{\sqrt{8^4}}. \\
86996 &:= (8 + 6!) \times ((\sqrt{9})!! - \sqrt{9})/6. \\
87352 &:= -8 + 7!/3 \times 52. \\
87355 &:= (8!/7! + 3!!) \times 5! - 5. \\
87379 &:= ((8!/7!)^3! - 7)/\sqrt{9}. \\
87536 &:= 8 \times 7 + 5! \times 3^6.
\end{aligned}$$

$$\begin{aligned}
87595 &:= (-8 + 7^5 + (\sqrt{9})!!) \times 5. \\
88704 &:= (88 \times 7!)/(0! + 4). \\
89460 &:= -8! + (\sqrt{9})!!/4 \times (6! + 0!). \\
89471 &:= 8! + \sqrt{9} \times 4^7 - 1. \\
89474 &:= 8 + (9! + 4! - 7!)/4. \\
89595 &:= 8!/9 \times 5!/(\sqrt{9})! - 5. \\
89599 &:= (8!/(\sqrt{9})! \times 5! - 9)/9. \\
90494 &:= (-904 + 9!)/4. \\
90534 &:= (9! - ((-0! + 5!) + 3!!))/4. \\
90690 &:= (9! - (-0! + 6!))/( \sqrt{9} + 0!). \\
90719 &:= 90 \times 7! - 1 - 9!. \\
90794 &:= \sqrt{9} + \sqrt{0! + 7!} + 9!/4. \\
90894 &:= -(\sqrt{9})! + ((0! + 8)! + (\sqrt{9})!!)/4. \\
91435 &:= 9! \times 1/4 + 3!! - 5. \\
91439 &:= (\sqrt{9} \times 3)!/4 - 1 + (\sqrt{9})!!. \\
91440 &:= 9! \times 1/4 + (4 - 0!)!. \\
91446 &:= (9! + 1 \times 4!)/4 + 6!. \\
91464 &:= 9! \times 1/4 + 6! + 4!. \\
91560 &:= ((\sqrt{9})! + 1)! + 5! \times (6! + 0!). \\
91744 &:= (9! + (1 + 7)^4)/4. \\
92032 &:= 2 \times (3!! - 0!) \times 2^{(\sqrt{9})!}. \\
92184 &:= (\sqrt{9})!! \times 2^{(-1+8)} + 4!. \\
92416 &:= ((\sqrt{9})!! + 2) \times \sqrt{4^{1+6}}. \\
92880 &:= (\sqrt{9})!! \times (2 \times (8 \times 8) + 0!). \\
92928 &:= ((\sqrt{9})!!/2 + \sqrt{9}) \times 2^8. \\
93252 &:= (\sqrt{9})!^{3!} \times 2 - 5!/2. \\
93256 &:= (\sqrt{9})!^{3!} \times 2 - 56. \\
93300 &:= ((\sqrt{9})!^{3!} - 3!) \times (0! + 0!). \\
93320 &:= 9 + 3!^{3!} \times 2 - 0!. \\
93330 &:= (9 + 3!^{3!}) \times (3 - 0!). \\
93384 &:= (\sqrt{9} + 3 \times \sqrt{3!^6}) \times 4!. \\
93562 &:= ((\sqrt{9})!^{3!} + \sqrt{56}) \times 2. \\
93744 &:= 9!/3!! \times (7!/4! - 4!). \\
93756 &:= (\sqrt{9})! \times (-3! + 7 + 5^6). \\
93888 &:= 9 \times (\sqrt{3!^8} + 8) \times 8. \\
93927 &:= ((\sqrt{9})!! - 3) \times (\sqrt{9} + 2^7). \\
94315 &:= 9!/4 + (3!! - 1) \times 5. \\
94335 &:= 9!/4 + (3 + 3!!) \times 5. \\
94365 &:= 9!/4 + 3^6 \times 5. \\
94494 &:= (9!/4! - 4! + 9!)/4. \\
94512 &:= ((\sqrt{9})!! - 4) \times (5! + 12). \\
94751 &:= 94 \times 7!/5 - 1. \\
94752 &:= 94 \times 7!/ \sqrt{5^2}. \\
94754 &:= 94 \times 7!/5 + \sqrt{4}. \\
94816 &:= 9!/4 + 8^{\sqrt{16}}. \\
94824 &:= (9!/4 + 8) + \sqrt{2^{4!}}. \\
94848 &:= (9 + 4!) \times 8^4 - 8!. \\
94864 &:= ((9!/\sqrt{4} + 8!)/6!)^{\sqrt{4}}. \\
94957 &:= -\sqrt{9} + (4 + (\sqrt{9})!)^5 - 7!. \\
95035 &:= \left( \sqrt{(\sqrt{9})!!/5} \right)!/(0! + 3!)! - 5. \\
95037 &:= -\sqrt{9} + ((5 - 0!) \times 3!)/7!. \\
95040 &:= \left( \sqrt{(\sqrt{9})!!/5} \right)!/(0! + (4 - 0!)!). \\
95064 &:= \left( \sqrt{(\sqrt{9})!!/5} \right)!/(0! + 6!) + 4!. \\
95496 &:= (-9! + 5!^4/\sqrt{9})/6!. \\
95749 &:= 9!/4 + 7! - 5 - (\sqrt{9})!. \\
95754 &:= -(\sqrt{9})!!/5! + 7! \times (-5 + 4!). \\
95937 &:= (\sqrt{9})! \times 5^{(\sqrt{9})!} + 3^7. \\
95994 &:= -(\sqrt{9})! + (5!^{\sqrt{9}})/(9 \times \sqrt{4}). \\
95999 &:= -\left( \sqrt{9} - 5!^{\sqrt{9}}/(\sqrt{9})! \right) / \sqrt{9}. \\
96475 &:= (\sqrt{9})!! \times (6 + \sqrt{4^7}) - 5. \\
96480 &:= (\sqrt{9})!! \times (6 + \sqrt{4^{(8-0!)}}). \\
96759 &:= 96 \times 7!/5 - 9. \\
97344 &:= ((9 + 7 - 3) \times 4!)^{\sqrt{4}}. \\
97447 &:= -(\sqrt{9})!! + (7 + 4)^4 \times 7. \\
97917 &:= -\sqrt{9} + (7! + (\sqrt{9})!) \times 17. \\
97920 &:= ((\sqrt{9})!! + 7!) \times (-\sqrt{9} + 20). \\
97947 &:= \sqrt{9^7} + 9!/4 + 7!. \\
98301 &:= \sqrt{9} \times (8^{3!-0!} - 1). \\
98302 &:= \sqrt{9} \times 8^{3!-0!} - 2. \\
98313 &:= 9 + 8^{3!-1} \times 3. \\
98334 &:= (9 \times 8^{3!} + 3!!)/4!. \\
98385 &:= \sqrt{\sqrt{9^8}} + 3 \times 8^5. \\
98444 &:= ((\sqrt{9})! + 8^4) \times 4! - 4. \\
98448 &:= ((\sqrt{9})! + 8^4) \times (-4 + 8)!. \\
98496 &:= -(\sqrt{9})!^8/4 + (\sqrt{9})!! \times 6!. \\
98517 &:= \sqrt{9} \times (8^5 + \sqrt{1 + 7!}). \\
98535 &:= \sqrt{9^8} \times 5 \times 3 + 5!. \\
98598 &:= \sqrt{9} \times (8^5 + 98). \\
98634 &:= -(\sqrt{9})! + 8! + 6! \times 3^4. \\
98640 &:= (\sqrt{9})!! \times (-8 + 6 \times 4! + 0!). \\
98784 &:= \left( \sqrt{(\sqrt{9})!^8} \times 7 + 8! \right) \times \sqrt{4}. \\
99127 &:= ((\sqrt{9})!!/(\sqrt{9})! - 1)^2 \times 7. \\
99342 &:= 9! - ((\sqrt{9})! + 3!!)^{\sqrt{4}}/2. \\
99360 &:= (\sqrt{9})!! \times (\sqrt{9} \times 3! + (6 - 0!)!). \\
99378 &:= 9 + \sqrt{9^{3+7}} + 8!. \\
99584 &:= (\sqrt{9})!! \times (\sqrt{9})!!/5 - 8^4. \\
99594 &:= -(\sqrt{9})! + 9!/5! \times (9 + 4!). \\
99720 &:= (-9 \times (\sqrt{9})! + 7!) \times 20. \\
99846 &:= (9 + (-\sqrt{9} + 8)!)^{\sqrt{4}} \times 6.
\end{aligned}$$

## 5.2 Selfie Numbers in Reverse Order of Digits

$25 := 5^2.$	$4356 := \sqrt{((6+5) \times 3!)^4}.$	$12543 := (3! + \sqrt{4} - 5!)^2 - 1.$
$64 := \sqrt{4^6}.$	$4394 := (4+9)^3 \times \sqrt{4}.$	$12595 := -5 + ((\sqrt{9})!! - 5!) \times 21.$
$125 := 5^{2+1}.$	$4478 := 8!/(7+\sqrt{4}) - \sqrt{4}.$	$12605 := 5 \times ((0!+6)!/2+1).$
$126 := 6 \times 21.$	$4489 := \sqrt{(\sqrt{9} + \sqrt{8^4})^4}.$	$12759 := -9 + (5! - 7)^2 - 1.$
$153 := 3 \times 51.$	$4598 := 8!/9 + 5! - \sqrt{4}.$	$12769 := ((\sqrt{9})!!/6 - 7)^2 \times 1.$
$289 := (9+8)^2.$	$4624 := (4+2^6)^{\sqrt{4}}.$	$12939 := (\sqrt{9})!! \times 3 \times (\sqrt{9})! - 21.$
$337 := 7^3 - 3!.$	$4675 := -5 + 7! - 6!/\sqrt{4}.$	$12981 := 18 \times (\sqrt{9})!! + 21.$
$624 := 4! \times 26.$	$4782 := -2^8 + 7! - \sqrt{4}.$	$12995 := (5! - 9 + \sqrt{9})^2 - 1.$
$625 := \sqrt{5^{2+6}}.$	$4784 := \sqrt{(\sqrt{4^8} - 7!)^{\sqrt{4}}}.$	$13239 := 9 \times (3!! \times 2 + 31).$
$688 := 8 \times 86.$	$4796 := -6!/\sqrt{9} + 7! - 4.$	$13248 := (8! - 4!^2)/3 \times 1.$
$719 := (\sqrt{9})!! - 1^7.$	$4797 := 7! - \sqrt{9^{7-\sqrt{4}}}.$	$13368 := (8! - 6^3)/3 \times 1.$
$864 := 4! \times \sqrt{\sqrt{6^8}}.$	$4802 := 2 \times (0! - 8)^4.$	$13398 := 8!/\sqrt{9} - 3! \times (3! + 1).$
$1024 := \sqrt{\sqrt{4^{20}}} \times 1.$	$4957 := 7! - 59 - 4!.$	$13432 := ((2^3)! - 4!)/3 \times 1.$
$1345 := 5^4 + 3!! \times 1.$	$4967 := 7! - 69 - 4.$	$13438 := 8!/3 - 4 + 3 - 1.$
$1359 := 9 \times (5! + 31).$	$4992 := (-2^9 + (\sqrt{9})!!) \times 4!.$	$13453 := -3 + (5! - 4)^{3-1}.$
$1395 := 5 \times 9 \times 31.$	$5175 := 5! + 7! + 15.$	$13456 := (-6 + 5! + \sqrt{4})^{3-1}.$
$1436 := 6! + 3!! - 4 \times 1.$	$5785 := \sqrt{5^8} + 7! + 5!.$	$13458 := (8! + 54)/3 \times 1.$
$1477 := 7 \times (7!/4! + 1).$	$5864 := -(\sqrt{4} - 6!) \times 8 + 5!.$	$13459 := \sqrt{9} + (5! - 4)^{3-1}.$
$2189 := \sqrt{9^{8-1}} + 2.$	$5880 := 5! + 8!/(8 - 0!).$	$13464 := 4! + (\sqrt{64})!/3 \times 1.$
$2197 := (7 + (\sqrt{9})!)^{1+2}.$	$6048 := 8!/40 \times 6.$	$13488 := 8 \times (8!/4! + 3!) \times 1.$
$2403 := (3! + 0!)^4 + 2.$	$6144 := 4^{4+1} \times 6.$	$13536 := 6! + 3!^5 + (3! + 1)!.$
$2517 := (7! - 1 - 5)/2.$	$6475 := -5 + (7 + \sqrt{4}) \times 6!.$	$13704 := \sqrt{4!^{(-0!+7)}} - (3! - 1)!.$
$2575 := -5 + (7! + 5!)/2.$	$6478 := 8!/7 - \sqrt{4} + 6!.$	$13725 := 5 \times ((2 \times 7)^3 + 1).$
$2736 := 6^3 + 7!/2.$	$6655 := 5 \times \sqrt{(5+6)^6}.$	$13834 := 4!^3 + 8 + 3 - 1.$
$2876 := (6! + 7! - 8)/2.$	$6715 := -5 + (1+7)!/6.$	$13864 := \sqrt{4!^6} + 8 \times (3! - 1).$
$2916 := (6 \times 1 \times 9)^2.$	$6748 := (8! + 4! \times 7)/6.$	$13925 := (5! - 2)^{(\sqrt{9})!/3} + 1.$
$3072 := 2^7 \times (0! + 3!).$	$6992 := 2^9 + 9 \times 6!.$	$13942 := -2 + 4!^{\sqrt{9}} + (3! - 1)!.$
$3159 := \sqrt{9^5} \times 13.$	$7335 := 5 \times (-3! + 3^7).$	$13944 := \sqrt{4!^{\sqrt{4 \times 9}}} + (3! - 1)!.$
$3237 := (7! - 3!)/2 + 3!!.$	$7992 := ((2+9)! + 9!)/7!.$	$13945 := 5! + 4!^{9/3} + 1.$
$3369 := (9+6)^3 - 3!.$	$8057 := 8!/(0+5) - 7.$	$14155 := -5 + (5! - 1)^{\sqrt{4}} - 1.$
$3372 := 2 \times (7!/3 + 3!).$	$8058 := 8!/5 - (\sqrt{0!+8})!.$	$14156 := -6 + (5! - 1)^{\sqrt{4}} + 1.$
$3375 := (5+7+3)^3.$	$8496 := 6! + \sqrt{(\sqrt{9})!^{\sqrt{4}+8}}.$	$14159 := -\sqrt{9} + (5! - 1)^{\sqrt{4}} + 1.$
$3378 := (8+7)^3 + 3.$	$8576 := 67 \times (5! + 8).$	$14161 := (-1 + (6-1)!)^{\sqrt{4}} \times 1.$
$3384 := 4! + 8!/(3! + 3!).$	$9375 := \sqrt{5^{7+3} \times 9}.$	$14255 := -5! + 5!^2 - 4! - 1.$
$3483 := \sqrt{3^8} \times 43.$	$9575 := 5 \times 7! - 5^{(\sqrt{9})!}.$	$14325 := 5!^2 - 3 \times (4! + 1).$
$3845 := \sqrt{5^{\sqrt{4}+8}} + 3!!.$	$9865 := 5^6 - 8 \times (\sqrt{9})!!.$	$14373 := -3^7 + 3!! \times (4! - 1).$
$3867 := (-7 + \sqrt{6^8}) \times 3.$	$10344 := 4! \times (430 + 1).$	$14375 := 5^{7-3} \times (4! - 1).$
$3891 := (1 + \sqrt{(\sqrt{9})!^8}) \times 3.$	$10369 := 9!/(6 \times 3! - 0!) + 1.$	$14393 := -3! + ((\sqrt{9})!!/3!)^{\sqrt{4}} - 1.$
$3894 := (\sqrt{4} + \sqrt{(\sqrt{9})!^8}) \times 3.$	$10785 := 5!/8 \times ((7 - 0!)! - 1).$	$14419 := ((\sqrt{9})!! + 1) \times (4! - 4) - 1.$
$3977 := 7! - 7^{\sqrt{9}} - 3!!.$	$10919 := 91 \times ((\sqrt{9})! - 0!)! - 1.$	$14423 := (3+2)!^{\sqrt{4}} + 4! - 1.$
$4092 := \sqrt{2^{(\sqrt{9}+0!)!}} - 4.$	$10935 := 5 \times 3^{(9-0!-1)}.$	$14425 := 5^2 \times (4!^{\sqrt{4}} + 1).$
$4215 := 5! - 1 + \sqrt{2^{\sqrt{4}}}.$	$11163 := 3 \times 61^{1+1}.$	$14435 := 5 \times ((3!! + \sqrt{4}) \times 4 - 1).$
$4216 := (6-1)! + \sqrt{2^{\sqrt{4}}}.$	$11339 := 9!/(33 - 1) - 1.$	$14445 := 5!^{\sqrt{4}} + 44 + 1.$
$4331 := -1 + 3! \times (3!! + \sqrt{4}).$	$11869 := ((\sqrt{9})! + 6)!/8! - 11.$	$14495 := (5 \times (\sqrt{9})!! + 4!) \times 4 - 1.$
	$12504 := 4! \times (0 + 521).$	$14519 := ((\sqrt{9})! - 1)! + 5!^{\sqrt{4}} - 1.$
		$14525 := 5!^2 + 5^{4-1}.$
		$14564 := 4 \times (6! \times 5 + 41).$
		$14579 := \sqrt{9} \times 7! - 541.$
		$14664 := \sqrt{4!^6} + 6! + (4 + 1)!.$

$$\begin{aligned}
14856 &:= (-6 + \sqrt{5^8}) \times 4! \times 1. \\
14885 &:= (5! + \sqrt{\sqrt{8+8}})^{\sqrt{4}} + 1. \\
14909 &:= (9! - (0! + (\sqrt{9}!!)!)!/4! - 1. \\
14939 &:= (9!/3! - (\sqrt{9}!!)/4! - 1. \\
14979 &:= \sqrt{9} \times (7! - (\sqrt{9})! - 41). \\
14995 &:= -5^{\sqrt{6}} + 9!/4! \times 1. \\
15069 &:= \sqrt{9} \times (6 + 0!)! - 51. \\
15239 &:= 9!/(3! - 2)! + 5! - 1. \\
15264 &:= \sqrt{4!^6} + 2 \times (5 + 1)!. \\
15425 &:= 5!^2 + 4^5 + 1. \\
15562 &:= 2 \times (6^5 + 5) \times 1. \\
15565 &:= 5^6 - 5!/\sqrt{5-1}. \\
15568 &:= (8 + 6^5) \times \sqrt{5-1}. \\
15614 &:= (4 + 1)^6 - \sqrt{5! + 1}. \\
15629 &:= (\sqrt{9} + 2)^6 + 5 - 1. \\
15984 &:= (\sqrt{4} \times 8! - (\sqrt{9}!!)/5 \times 1. \\
16128 &:= 8! \times 2/(\sqrt{16} + 1). \\
16225 &:= 52^2 \times 6 + 1. \\
16374 &:= 4^7 - 3 - 6 - 1. \\
16448 &:= \sqrt{8^4} + 4^{6+1}. \\
16495 &:= 5! - 9 + 4^{6+1}. \\
16499 &:= -(\sqrt{9}!!) + (\sqrt{9}!!) \times 4! - 61. \\
16585 &:= 5! \times 8 + 5^6 \times 1. \\
16742 &:= (-2 + 4!) \times 761. \\
16783 &:= -3 \times 8 + 7^{6-1}. \\
16794 &:= -4 - 9 + 7^{6-1}. \\
16797 &:= -7 - \sqrt{9} + 7^{6-1}. \\
16813 &:= 3! + (-1 + 8)^{6-1}. \\
16927 &:= 7^{2+\sqrt{9}} + (6 - 1)!. \\
17974 &:= 4 \times 7! - \sqrt{9^7} + 1. \\
18729 &:= 9^{(-2+7)} - 8! \times 1. \\
18742 &:= -2 + 4! \times 781. \\
18744 &:= (\sqrt{4 \times 4})! \times 781. \\
18864 &:= \sqrt{4!^6} + 8!/8 \times 1. \\
18954 &:= \sqrt{4} \times (5! - \sqrt{9}) \times 81. \\
19264 &:= 4 \times (6! + \sqrt{2^{(\sqrt{9}+1)!}}). \\
19323 &:= -3!!/2 + 3^9 \times 1. \\
19349 &:= (\sqrt{9} + 4!) \times 3!! - 91. \\
19438 &:= (8! - 3!)/\sqrt{4} - (\sqrt{9}!!) + 1. \\
19474 &:= (4 + 7!/4!) \times 91. \\
19656 &:= \sqrt{6^5 \times 6} \times 91. \\
19736 &:= (6 + 3^7) \times 9 - 1. \\
19747 &:= 7 \times (4! + 7) \times 91. \\
19803 &:= 3^{0!+8} + ((\sqrt{9})! - 1)!. \\
20148 &:= 8!/\sqrt{4} - 10 - 2. \\
20158 &:= 8! \times 5/10 - 2. \\
20159 &:= ((\sqrt{9} + 5)! - 1 - 0!)/2. \\
20268 &:= (8! + 6^{2+0!})/2.
\end{aligned}
\begin{aligned}
20448 &:= (8! + 4!^{\sqrt{4}})/(0 + 2). \\
20449 &:= (9 \times 4 \times 4 - 0!)^2. \\
20485 &:= 5 \times (8^4 + (0/2)!). \\
20665 &:= 5^6 + (6 + (0/2)!!). \\
20736 &:= (6 \times 3 \times (7 + 0!!))^2. \\
20785 &:= \sqrt{5^8} + (7 + 0!)!/2. \\
20873 &:= (3!! - 7) + 8!/(0 + 2). \\
20876 &:= 6! + (-7 + 8! - 0!)/2. \\
20883 &:= 3!! + (8! + \sqrt{8 + 0!!})/2. \\
21603 &:= 30 \times 6! + 1 + 2. \\
21844 &:= (-4 + 4^8)/(1 + 2). \\
21848 &:= (8 + 4^8)/(1 + 2). \\
21952 &:= (25 + \sqrt{9})^{1+2}. \\
22264 &:= 46 \times 22^2. \\
22398 &:= 8!/9 \times (3 + 2) - 2. \\
22472 &:= (2 + 7!/4!)^2/2. \\
22528 &:= (8/2)^5 \times 22. \\
22599 &:= 9 \times (-9 + (5 + 2)!!)/2. \\
22675 &:= -5 + (7! + (6 + 2)!!)/2. \\
22678 &:= (8! + 7 \times 6!)/2 - 2. \\
22679 &:= (9 \times 7! - 6)/2 + 2. \\
22757 &:= 7 \times (57^2 + 2). \\
22966 &:= (6^6 - (\sqrt{9}!!))/2 - 2. \\
22969 &:= ((\sqrt{9})!^6 - (\sqrt{9}!!) + 2)/2. \\
23008 &:= ((\sqrt{8 + 0!!})!! - 0!)/32. \\
23066 &:= -6 + (6! + 0!) \times 32. \\
23069 &:= -\sqrt{9} + (6! + 0!) \times 32. \\
23072 &:= ((\sqrt{2 + 7})!! + 0!) \times 32. \\
23296 &:= 6^{(\sqrt{9})!}/2 - 32. \\
23304 &:= -4! - 0 + 3!^{3!}/2. \\
23319 &:= -9 + 1 \times 3!^{3!}/2. \\
23331 &:= 1 \times 3 + 3!^{3!}/2. \\
23364 &:= 4 \times (-6! + 3!^{3!+2}). \\
23377 &:= 7 \times 7 + 3!^{3!}/2. \\
23409 &:= (9 + (0 + 4)!) \times 3!)^2. \\
23436 &:= 63 \times (4! + 3!!)/2. \\
23513 &:= -(3! + 1)^5 + (3! + 2)!. \\
23762 &:= (26 + 7) \times 3!! + 2. \\
24191 &:= -1 + 9!/(-1 + 4^2). \\
24194 &:= \sqrt{4} + 9!/(-1 + 4^2). \\
24332 &:= 23^3 \times \sqrt{4} - 2. \\
24346 &:= (6! - 4) \times 34 + 2. \\
24367 &:= 7 \times (63 - 4)^2. \\
24575 &:= 5 \times (7! - \sqrt{5^{4+2}}). \\
24579 &:= (-9 + 7!) \times 5 - 4!^2. \\
24649 &:= (9 + 4 + 6 \times 4!)^2. \\
24695 &:= -5^{(9-6)!} + (4 \times 2)!. \\
24768 &:= 8! - 6^{(7-\sqrt{4})} \times 2.
\end{aligned}
\begin{aligned}
24964 &:= (\sqrt{4^6} + 94)^2. \\
25088 &:= 8 \times (8!/(0! + 5!)^2. \\
25575 &:= 5 \times (75 + (5 + 2)!). \\
25577 &:= (7! + 75) \times 5 + 2. \\
25915 &:= -5 + (-1 + 9)! - 5!^2. \\
25917 &:= (7 + 1)! - \sqrt{9} - 5!^2. \\
25938 &:= 8! + 3 \times (\sqrt{9})! - 5!^2. \\
25998 &:= (8!/9 + (\sqrt{9}!!)) \times 5 - 2. \\
26064 &:= (4 + 6!) \times (0 + 6^2). \\
26136 &:= (6 + 3!!) \times 1 \times 6^2. \\
26208 &:= (8 + (0! + 2)!!) \times 6^2. \\
26279 &:= (9!/7 - 2 + 6!)/2. \\
26352 &:= (2 + 5!) \times 3! \times 6^2. \\
26488 &:= 8! - 8 - 4!^{6+2}. \\
26489 &:= -9 + 8! - \sqrt{4!^6} + 2. \\
26635 &:= -5 + 3!! + 6! \times 6^2. \\
26664 &:= 4! + 6! + 6! \times 6^2. \\
26848 &:= 8 \times (-4 + 8!/(6 \times 2)). \\
26898 &:= 8! + (9 - 8!/6) \times 2. \\
26937 &:= 73 \times (9 + 6!/2). \\
26964 &:= (4! + 6)^{\sqrt{9}} - 6^2. \\
26973 &:= 37 \times 9^{6/2}. \\
26994 &:= \sqrt{((4! + (\sqrt{9})!)^{\sqrt{9}} - 6)^2}. \\
27198 &:= 8! - \sqrt{9^{1+7}} \times 2. \\
27456 &:= (6 + 5) \times (-4! + 7!/2). \\
27497 &:= -7 - (\sqrt{9}!!) + (4! \times 7)^2. \\
27534 &:= (4!^3 - 57) \times 2. \\
27634 &:= (\sqrt{4!^{\sqrt{36}}} - 7) \times 2. \\
27642 &:= 2 \times (\sqrt{4!^6} - \sqrt{7 + 2}). \\
27662 &:= (\sqrt{(-2 + 6)!^6} + 7) \times 2. \\
27715 &:= 5 \times (-1 + 7!) + 7!/2. \\
27728 &:= 8^{(-2+7)} - (\sqrt{7^2})!. \\
27735 &:= 5 \times (3 + 7!) + 7!/2. \\
27783 &:= \sqrt{3^8} \times 7 \times 7^2. \\
27889 &:= ((\sqrt{9}!! - 887)^2. \\
28479 &:= ((\sqrt{9})! + 7)^4 - 82. \\
28497 &:= (7 + (\sqrt{9})!)^4 - 8^2. \\
28561 &:= (1 + \sqrt{6!/5})^{8/2}. \\
28575 &:= (5! + 7) \times (5!/8)^2. \\
28656 &:= 6^5 + 6! + 8!/2. \\
28735 &:= 5^{3!} \times 7 - 8! \times 2. \\
28764 &:= (-4! + 6 \times \sqrt{7^8}) \times 2. \\
28944 &:= (4!^4 + 9!)/(8/2)!. \\
28974 &:= -4^7 + 9!/8 - 2. \\
29184 &:= 4! + 81 \times (\sqrt{9}!!)/2. \\
29196 &:= (6! + 91) \times (\sqrt{9})!^2. \\
29523 &:= (3^{2 \times 5} - \sqrt{9})/2. \\
29529 &:= (9^{\sqrt{25}} + 9)/2. \\
29561 &:= (1 + 6!) \times (5 + (\sqrt{9})!)^2). \\
29646 &:= (6!/\sqrt{4} + 6) \times 9^2. \\
29735 &:= -5^{3!} + 7! \times \sqrt{9^2}.
\end{aligned}$$

29736 := $6 \times (-3 + 7! - 9^2)$ .	34524 := $4!/2 \times (5! \times 4! - 3)$ .	38584 := $(48 + 5) \times (8 + 3!!)$ .
29754 := $(\sqrt{4+5})! \times (7! - 9^2)$ .	34575 := $5 \times (7! + 5^4 \times 3)$ .	38592 := $-(-2+9)!/5 + 8! - 3!!$ .
29768 := $8 \times (67 - (\sqrt{9})!)^2$ .	34578 := $(8!/7 + \sqrt{5+4}) \times 3!$ .	38767 := $-7!/6 + 7 + 8! - 3!!$ .
29789 := $(\sqrt{9} \times 8 + 7)^{\sqrt{9}} - 2$ .	34624 := $4! \times 2 \times 6! + 4^3$ .	38855 := $-5! - \sqrt{5^8} + 8! - 3!!$ .
29876 := $6 \times 7! - (8 + (\sqrt{9})!!)/2$ .	34632 := $2 \times (36 + 4! \times 3!!)$ .	38863 := $-3^6 - 8 + 8! - 3!!$ .
29929 := $(92 + 9 \times 9^2)$ .	34656 := $6!/5 \times (6! + \sqrt{4})/3$ .	38934 := $(-4! \times 3 + \sqrt{9^8}) \times 3!$ .
29946 := $6 \times (-49 + (9 - 2)!!)$ .	34768 := $-\sqrt{8^6} + 7 \times (4 + 3)!!$ .	38936 := $6! \times 3! \times 9 + 8!/3!!$ .
29984 := $-\sqrt{4^8} + (\sqrt{9})! \times (9 - 2)!!$ .	34937 := $(-7 + 3!!) \times ((\sqrt{9})! + 43)$ .	38963 := $3!! \times 6 \times 9 + 83$ .
29997 := $7! \times (\sqrt{9})! - \sqrt{9} \times 9^2$ .	34974 := $47 \times ((\sqrt{9})!! + 4!) + 3!!$ .	38975 := $-5^{\sqrt{7+9}} + 8! - 3!!$ .
30137 := $7! \times 3! - 103$ .	34993 := $(3 + (9 + 9^4))/3$ .	38976 := $(6! - (\sqrt{7+9})!) \times 8!/3!!$ .
30175 := $-5 + (7! - 10) \times 3!$ .	35394 := $49 \times 3!! + 5! - 3!$ .	38992 := $-(2 + 9)^{\sqrt{9}} + 8! + 3$ .
30176 := $6 \times 7! - (1 + 0!)^{3!}$ .	35427 := $7^2 \times (\sqrt{4+5} + 3!!)$ .	38994 := $-(4 \times \sqrt{9})!/9! + 8! - 3!!$ .
30239 := $9!/(3! \times 2) - (0/3)!!$ .	35496 := $(-6! + 9!)/(\sqrt{4} \times 5) - 3!!$ .	38995 := $-(5 + (\sqrt{9})!)^{\sqrt{9}} + 8! + 3!!$ .
30324 := $42 \times (3 - 0! + 3!!)$ .	35557 := $7^5 + 5^5 \times 3!$ .	39088 := $8! - 8^{\sqrt{9+9}} - 3!!$ .
30365 := $\sqrt{5^6} + 3! \times (0! + 3!)!!$ .	35648 := $8 \times (4^6 + 5! \times 3)$ .	39298 := $((8 + 9) \times 2)^{\sqrt{9}} - 3!!$ .
30475 := $-5 + (7! + 40) \times 3!!$ .	35792 := $2^9 - 7! + (5 + 3)!!$ .	39304 := $(40 + 3 - 9)^3$ .
30576 := $(6 + 7! + 50) \times 3!$ .	35864 := $-4^6 + 8! - 5! \times 3$ .	39356 := $6 \times (-5 + 3^9)/3$ .
30738 := $(83 + 7!) \times (0 + 3)!!$ .	35937 := $(-7 - 3!!/9 + 5!)^3$ .	39392 := $2^9 + 3!! \times 9 \times 3!$ .
30786 := $(6!/8 + 7! + 0!) \times 3!!$ .	35943 := $3!!/5! + (9 + 4!)^3$ .	39435 := $53 \times (4! + (\sqrt{9})!!) + 3$ .
31782 := $(2^8 + 7! + 1) \times 3!$ .	35973 := $-3^7 + (\sqrt{9})!! \times 53$ .	39472 := $-2^7 + (\sqrt{4^{\sqrt{9}}})! - 3!!$ .
32128 := $8! - 2^{1+2 \times 3!}$ .	36007 := $7 \times (0! + (0! + 6)!!) + 3!!$ .	39585 := $5 \times (8!/5 - \sqrt{9}) - 3!!$ .
32258 := $-8!/5 + 2 + (2^3)!!$ .	36015 := $5 \times (10 \times 6! + 3)$ .	39628 := $8! + \sqrt{2^6 + (\sqrt{9})!!} - 3!!$ .
32403 := $(3!!/(0 + 4))^2 + 3!!$ .	36153 := $-3!! + 51 \times (6! + 3)$ .	39728 := $8! + 2^7 - (9 - 3)!!$ .
32406 := $(6!/(0 + 4))^2 + 3!!$ .	36248 := $8! + 4! - (-2 + 6)^3!!$ .	39758 := $8! - 5 - 7!/9 + 3$ .
32537 := $-7 - 3!^5 + (2^3)!!$ .	36289 := $9!/(8 + 2) + 6/3!!$ .	39805 := $-\sqrt{5! + 0!} + 8! - 9!/3!!$ .
32568 := $8! - 6^5 + (-2 + 3!)!!$ .	36481 := $(-1 + 8 \times 4!)^{6/3}$ .	39809 := $-(\sqrt{9})! - 0! + 8! - 9!/3!!$ .
32648 := $8 \times 4^6 - (2 + 3)!!$ .	36501 := $\sqrt{(1 - (-0! + 5)!)^6} \times 3$ .	39813 := $-3 + 1 \times 8! - 9!/3!!$ .
32758 := $8^5 - \sqrt{7^2} - 3$ .	36714 := $(-\sqrt{4} + 17 \times 6!) \times 3$ .	39814 := $-\sqrt{4} + 1 \times 8! - 9!/3!!$ .
32832 := $2^{3!} + 8^{2+3}$ .	36715 := $-5 + 17 \times 6! \times 3$ .	39819 := $\sqrt{9} + 1 \times 8! - 9!/3!!$ .
32849 := $\sqrt{9^4} + 8^{2+3}$ .	36846 := $(-6 + 4! \times \sqrt{8^6}) \times 3$ .	39824 := $4 \times 2 + 8! - 9!/3!!$ .
33458 := $8! + (5 - 4!)^3 - 3$ .	36944 := $(4!^4 + (\sqrt{9})!!)/(6 + 3)$ .	39879 := $9 \times 7 + 8! - 9!/3!!$ .
33484 := $-4 + (8 \times 4)^3 + 3!!$ .	37248 := $8! - 4 \times 2^7 \times 3!$ .	39928 := $8! - 2^9 + (\sqrt{9})!!/3!!$ .
33579 := $9 \times 7 \times 533$ .	37488 := $8! + (8^4 - 7!) \times 3$ .	39936 := $6^{3!} - 9!/(9 \times 3)!!$ .
33585 := $5 \times (8 \times (5! + 3!!) - 3)!!$ .	37584 := $(4! \times 8)^{(-5+7)} + 3!!$ .	39982 := $-2 + 8! \times ((\sqrt{9})!! - (\sqrt{9})!!)/3!!$ .
33587 := $-7 + 8! \times 5/3! - 3!!$ .	37668 := $86 \times 6 \times 73$ .	39994 := $(-4 \times (\sqrt{9})!! + 9!)/9 - 3!!$ .
33589 := $(-(\sqrt{9})! + 8!) \times 5/3! - 3!!$ .	37795 := $-5 + 9 \times (7! - 7!/3)!!$ .	40024 := $4! + 200^{\sqrt{4}}$ .
33594 := $(\sqrt{4^{\sqrt{9}}})! \times 5/3! - 3!!$ .	37938 := $8! - 397 \times 3!$ .	40348 := $40 - 3 \times 4 + 8!$ .
33597 := $7!/9 \times \sqrt{5 \times 3!!} - 3$ .	37968 := $8!/6! \times ((\sqrt{9})!! - 7 \times 3)!!$ .	40348 := $8! + \sqrt{4} + 30 - 4$ .
33598 := $((8! - \sqrt{9}) \times 5 + 3)/3!!$ .	38139 := $-\sqrt{9^{3!+1}} + 8! + 3!!$ .	40349 := $(\sqrt{9})! + (\sqrt{4^3})! - 0! + 4!$ .
33599 := $(9!/9 \times 5 - 3!)!!/3!!$ .	38248 := $8! - 4! - 2^{8+3}$ .	40349 := $4! - 0! + 3! + (\sqrt{4^{\sqrt{9}}})!$ .
33744 := $4! \times (\sqrt{4} \times 7^3 + 3!!)$ .	38278 := $8 \times (7! - 2^8) + 3!!$ .	40352 := $2^5 + (3 + 0! + 4)!!$ .
33769 := $(9! \times 67 + 3!!)/3!!$ .	38328 := $8! - (-2 + 3!)!! \times 83$ .	40378 := $8 \times 7 \times (3!! + 0!) + \sqrt{4}$ .
33792 := $2^{\sqrt{9}+7} \times 33$ .	38427 := $(7 \times 2)^4 + 8 + 3$ .	40498 := $8! + (\sqrt{9})!!/4 + 0 - \sqrt{4}$ .
34047 := $(7!/4 + 0!) \times (4! + 3)$ .	38448 := $8! - 4! \times 48 - 3!!$ .	40738 := $8! + 3! \times 70 - \sqrt{4}$ .
34416 := $61 \times 4!^{\sqrt{4}} - 3!!$ .	38472 := $(2 \times 7)^4 + 8!/3!!$ .	40828 := $8! + 2^{8+0!} - 4$ .
34435 := $-5^3 + 4! \times \sqrt{4} \times 3!!$ .	38523 := $-3!!/2 \times 5 + 8! + 3$ .	40878 := $8! + 7 \times 80 - \sqrt{4}$ .
34452 := $2 \times (-54 + 4! \times 3!!)$ .	38526 := $-6!/2 \times 5 + 8! + 3!!$ .	40945 := $5^4 + (9 - (0/4))!!$ .
34496 := $(6! + (\sqrt{9})!!) \times 4! - 4^3$ .	38528 := $8^{\sqrt{25}} + 8 \times 3!!$ .	40964 := $4^6 \times (9 + 0!) + 4$ .

$$\begin{aligned}
41544 &:= (4 + 4)! + 51 \times 4!. \\
41548 &:= 8! + 4! \times 51 + 4. \\
41578 &:= 8! + 7!/(5 - 1) - \sqrt{4}. \\
41638 &:= 8! + (3!! - 61) \times \sqrt{4}. \\
41688 &:= 8! + (8!/6! + 1) \times 4!. \\
41748 &:= 8! + \sqrt{4} \times 714. \\
41756 &:= 6! \times (57 + 1) - 4. \\
41958 &:= 8! + (5! - \sqrt{9}) \times 14. \\
42288 &:= 8! + 82 \times 24. \\
42378 &:= 8! + 7^3 \times (2 + 4). \\
42436 &:= (6 \times 34 + 2)^{\sqrt{4}}. \\
42736 &:= 6 \times 3!! + (7 \times 2)^4. \\
42837 &:= (7! + (-3 + 8!) \times 2)/\sqrt{4}. \\
42848 &:= (8! + 4^8 \times 2)/4. \\
42952 &:= (-2 + 5!) \times ((\sqrt{9})!!/2 + 4). \\
42955 &:= -5 + 5! \times ((\sqrt{9})!!/2 - \sqrt{4}). \\
42976 &:= (-6! + 7!) \times 9 + \sqrt{2^{4!}}. \\
43179 &:= -\sqrt{9} \times (7 - (-1 + 3!)^{\sqrt{4}}). \\
43185 &:= 5!/8 \times (-1 + 3!! \times 4). \\
43344 &:= (\sqrt{\sqrt{4^{4!}}} + 3!!) \times \sqrt{3^4}. \\
43388 &:= 8! + 8^3 \times 3! - 4. \\
43392 &:= 2^9 \times 3! + (3! + \sqrt{4})!. \\
43488 &:= (8! + (8 - \sqrt{4})^{3!})/\sqrt{4}. \\
43659 &:= ((\sqrt{9})! + 5) \times \sqrt{63^4}. \\
43681 &:= (1 - 8 + 6^3)^{\sqrt{4}}. \\
43728 &:= 8! + 2 \times (7!/3 + 4!). \\
43824 &:= (4! - 2) \times 83 \times 4!. \\
43904 &:= (4 \times (0! + (\sqrt{9})!!))^3 \times \sqrt{4}. \\
43916 &:= 61 \times (9 - 3!) - 4. \\
43923 &:= 3 \times (2 + \sqrt{9} \times 3)^4. \\
43959 &:= 9^5 - (9! - 3!!)/4!. \\
43995 &:= 5^{(\sqrt{9})!} \times \sqrt{9} - 3!! \times 4. \\
44095 &:= -5 + (((\sqrt{9})! + 0!)/4!)^{\sqrt{4}}. \\
44176 &:= 6! + 7! + 14^4. \\
44517 &:= 71 \times (5^4 + \sqrt{4}). \\
44519 &:= (91 + 5!)^{\sqrt{4}} - \sqrt{4}. \\
44521 &:= (1 + (2 + 5!)!/4!)^{\sqrt{4}}. \\
44736 &:= (6! - 3 \times 7) \times \sqrt{\sqrt{\sqrt{4^{4!}}}}. \\
44736 &:= (\sqrt{\sqrt{\sqrt{4^{4!}}}}) \times (-7 \times 3 + 6!). \\
44798 &:= (8! + 9!)/(7 + \sqrt{4}) - \sqrt{4}. \\
44937 &:= -7 + (3!^{\sqrt{9}} - 4)^{\sqrt{4}}. \\
44995 &:= -5 - ((\sqrt{9})!! - 9!/4)/\sqrt{4}. \\
45359 &:= 9!/(5 + 3) - 5 + 4. \\
45478 &:= 8! + 7! + \sqrt{4} + 5! - 4. \\
45592 &:= (-2 + 95 \times 5!) \times 4. \\
45595 &:= -5 + 95 \times 5! \times 4. \\
45696 &:= (4 + \sqrt{5 \times 6!}) \times ((\sqrt{9})!! - 6).
\end{aligned}
\begin{aligned}
45696 &:= (6! - (\sqrt{9})!) \times (\sqrt{6! \times 5} + 4). \\
45732 &:= (4! + (5! + 7) \times 3!!)/2. \\
45783 &:= 3^8 \times 7 - 5! - 4!. \\
45796 &:= (6^{\sqrt{9}} - 7 + 5)^{\sqrt{4}}. \\
45897 &:= 7 \times \sqrt{9^8} - 5!/4. \\
45962 &:= 2^6 \times (\sqrt{9})!! - 5! + \sqrt{4}. \\
45966 &:= 6^6 - (\sqrt{9})!! + 5!/4. \\
45979 &:= 9 \times 7! - (\sqrt{9})! + 5^4. \\
45996 &:= 6^{(\sqrt{9})!} - (\sqrt{9})!! + 5!/\sqrt{4}. \\
46076 &:= 6! \times (70 - 6) - 4. \\
46142 &:= \sqrt{\sqrt{2^{4!}}} \times (1 + 6!) - \sqrt{4}. \\
46148 &:= \sqrt{8^4} \times (1 + 6!) + 4. \\
46232 &:= (2 + 3!!) \times 2^6 + 4!. \\
46296 &:= 6^{\sqrt{9} \times 2} - 6!/\sqrt{4}. \\
46328 &:= -8 + 2^{3!} \times (6! + 4). \\
46337 &:= -7^3 + 3!^{16} + 4!. \\
46476 &:= 6^{(7-4)!} - 6!/4. \\
46488 &:= 88^{\sqrt{4}} \times 6 + 4!. \\
46528 &:= 8^2 \times (5 + 6! + \sqrt{4}). \\
46533 &:= 3!^{3!} - 5! - 6/\sqrt{4}. \\
46539 &:= (\sqrt{9})!^{3!} - 5! + 6/\sqrt{4}. \\
46599 &:= (\sqrt{9})!^{(\sqrt{9})!} - (5! - 6)/\sqrt{4}. \\
46623 &:= -3^2 + 6^6 - 4!. \\
46643 &:= -\sqrt{3^4} + 6^6 - 4. \\
46671 &:= 17 + 6^6 - \sqrt{4}. \\
46681 &:= 1^8 + 6^6 + 4!. \\
46682 &:= 28 + 6^6 - \sqrt{4}. \\
46683 &:= \sqrt{\sqrt{\sqrt{3^8}}} + 6^6 + 4!. \\
46684 &:= 4 \times 8 + 6^6 - 4. \\
46685 &:= \sqrt{\sqrt{5^8}} + 6^6 + 4. \\
46686 &:= \sqrt{\sqrt{\sqrt{6^{8 \times 6}}}} + 6 + 4!. \\
46687 &:= \sqrt{\sqrt{\sqrt{7^8}}} + 6^6 + 4!. \\
46688 &:= \sqrt{8 \times 8} + 6^6 + 4!. \\
46689 &:= 9!/8! + 6^6 + 4!. \\
46691 &:= -1 + (\sqrt{9})!^6 + \sqrt{6^4}. \\
46693 &:= 39 + 6^6 - \sqrt{4}. \\
46736 &:= 6^{3!} + 76 + 4. \\
46797 &:= -7! + 9!/7 - 6/\sqrt{4}. \\
46871 &:= -1 + 7 \times (8!/6 - 4!). \\
46874 &:= \sqrt{4} + 7 \times (8!/6 - 4!). \\
46881 &:= \sqrt{(1+8)^8} + (\sqrt{64})!. \\
46883 &:= 3^8 + 8! + 6 - 4. \\
46889 &:= \sqrt{9^8} + 8! + \sqrt{64}. \\
46899 &:= \sqrt{9} \times (\sqrt{9} - 8)^6 + 4!. \\
46936 &:= 6^{3!} + 9!/6^4. \\
46997 &:= 7^{\sqrt{9}} + (\sqrt{9})!^6 - \sqrt{4}. \\
47369 &:= (\sqrt{9})!^6 + 3!! - \sqrt{\sqrt{7^4}}.
\end{aligned}
\begin{aligned}
47516 &:= 6 \times (\sqrt{1 + 5!})!/7! - 4. \\
47538 &:= 8! + 3 \times (5 + 7^4). \\
47544 &:= 4! + (\sqrt{4! + 5!})!/(7! \times \sqrt{4}). \\
47639 &:= (-9 + 3!!) \times 67 + \sqrt{4}. \\
47799 &:= 9 \times (-9 + 7!) + 7!/\sqrt{4}. \\
47858 &:= -8^5 + (8! - 7) \times \sqrt{4}. \\
47868 &:= 8! - 6 \times (8 - 7!)/4. \\
47875 &:= -5 + 7! + 8! + 7!/\sqrt{4}. \\
47883 &:= -3! + 8! + \sqrt{87^4}. \\
47895 &:= (5! + 9!)/8 + 7!/\sqrt{4}. \\
47898 &:= 8! + 9 + 87^{\sqrt{4}}. \\
47916 &:= 6^{(\sqrt{1 \times 9})!} + 7!/4. \\
48333 &:= 3!^{3!} - 3 + 8!/4!. \\
48336 &:= 6^{3+3} + 8!/4!. \\
48339 &:= \sqrt{9} + 3!^{3!} + 8!/4!. \\
48344 &:= (4! - 4)^3 + 8! + 4!. \\
48366 &:= 6^6 + (3!! + 8!)/4!. \\
48596 &:= 69 \times 5! + 8! - 4. \\
48606 &:= 6 \times (0! + (6!/8)^{\sqrt{4}}). \\
48636 &:= 6 \times (3! + (6!/8)^{\sqrt{4}}). \\
48973 &:= 37^{\sqrt{9}} - 8!/4!. \\
49096 &:= (69 - 0!) \times ((\sqrt{9})!! + \sqrt{4}). \\
49392 &:= (-2 + 9)^3 \times (\sqrt{9})! \times 4!. \\
49528 &:= 82 \times (-5! + (\sqrt{9})!! + 4). \\
49542 &:= (\sqrt{\sqrt{2^{4!}}} + 5) \times ((\sqrt{9})!! - \sqrt{4}). \\
49556 &:= (6! + 5!) \times 59 - 4. \\
49609 &:= ((\sqrt{9})!! - 0!) \times 69 - \sqrt{4}. \\
49613 &:= (3!! - 1) \times 69 + \sqrt{4}. \\
49668 &:= -8 + 6! \times 69 - 4. \\
49824 &:= -4!^2 - 8! + 9!/4. \\
49905 &:= -(5 + 0!)! + (9 + (\sqrt{9})!)^4. \\
49906 &:= -6! + 0! + (9 + (\sqrt{9})!)^4. \\
49984 &:= 4^8 - \sqrt{(\sqrt{9})!^9 \times 4!}. \\
50349 &:= -\sqrt{9} \times (4! - (3! + 0!)^5). \\
50625 &:= (5!/(2 + 6))^{(-0!+5)}. \\
50967 &:= 7 \times (6! + 9^{(-0!+5)}). \\
51697 &:= 7! + (\sqrt{9})!^6 + 1^5. \\
51719 &:= 9!/(1 \times 7) - 1 - 5!. \\
51839 &:= 9 \times 3!! \times 8 - 1^5. \\
51845 &:= (5 + 4)!/(8 - 1) + 5. \\
51879 &:= 9!/7 - 81 + 5!. \\
52079 &:= 9!/7 - 0! + 2 \times 5!. \\
52483 &:= 3^8 \times 4 \times 2 - 5. \\
52493 &:= (3 \times (\sqrt{9})!)^4 / 2 + 5. \\
52498 &:= 8 \times 9^4 + 2 \times 5. \\
52928 &:= 8!/2 + ((\sqrt{9})! + 2)^5. \\
52944 &:= 4! + (4! - \sqrt{9})^2 \times 5!. \\
53337 &:= 73 \times 3^{3!} + 5!. \\
53688 &:= 8 \times (8!/6 + 3!) - 5!. \\
53712 &:= -(2 + 1)!! + 7 \times 3!^5. \\
53713 &:= -3!! + 1 + 7 \times 3!^5.
\end{aligned}$$

$$\begin{aligned}
53808 &:= 8 \times (0! + 8!/3! + 5). \\
53824 &:= (4! - 2^8)^{(-3+5)}. \\
53848 &:= 8 \times (-4 + 8!/3!) + 5!. \\
53856 &:= 6! \times 5! - 8! + 3!^5. \\
53946 &:= (6 + 4! \times 9) \times 3^5. \\
54264 &:= \sqrt{4!^6} + (2 \times 4!) + 5!. \\
54396 &:= (-6! + 9! \times 3)/(4 \times 5). \\
54397 &:= 7 \times ((\sqrt{9})!^{3+\sqrt{4}} - 5). \\
54576 &:= (6! + 7! \times 54)/5. \\
54636 &:= (6!/3 - 6)^{\sqrt{4}} - 5!. \\
54688 &:= 8 \times (8!/6 - 4 + 5!). \\
54742 &:= -2 + 4! \times (7^4 - 5!). \\
54795 &:= (5 \times \sqrt{9^7} + 4!) \times 5. \\
54869 &:= (-9! + 6^8)/4! + 5. \\
55939 &:= 9!/3!! \times (-9 + 5!) - 5. \\
56087 &:= 78 \times (-0! + 6!) + 5. \\
56485 &:= (-5 + 84) \times (6! - 5). \\
56957 &:= (-7 + 5!) \times 9!/6! + 5. \\
56997 &:= 79 \times (\sqrt{9} + 6!) - 5!. \\
57126 &:= (6 + 2)! - 1 + 7^5. \\
57127 &:= (7 + 2 - 1)! + 7^5. \\
57128 &:= 8! + 2 - 1 + 7^5. \\
57456 &:= (-6 + 5!)/\sqrt{4} \times 7!/5. \\
57465 &:= 5^6 \times 4 - 7! + 5. \\
57843 &:= 3!! - 4 + 8! + 7^5. \\
57847 &:= (7 - 4)!! + 8! + 7^5. \\
57849 &:= (\sqrt{9})!! + \sqrt{4} + 8! + 7^5. \\
58315 &:= (5 + 1)! \times \sqrt{3^8} - 5. \\
58329 &:= 9^{2+3} - (8 - 5)!! . \\
58362 &:= (2 + 6!) \times \sqrt{3^8} - 5!. \\
58368 &:= 8 \times (6! + 3^8) + 5!. \\
58459 &:= 9!/(5 \times 4) + 8! - 5. \\
58464 &:= (-4! + 6!)/4 \times 8!/5!. \\
58688 &:= 8 \times (-8 - 6! + 8!/5). \\
58928 &:= 82 \times (\sqrt{9})!! + 8 - 5!. \\
58935 &:= -5! + 3! + (9!/8!)^5. \\
58959 &:= -9 \times (5 - \sqrt{9^6} + 5). \\
58997 &:= -7 + 9 \times (\sqrt{9^6} - 5). \\
59013 &:= -3!^{1+0!} + 9^5. \\
59019 &:= -\sqrt{9} \times 10 + 9^5. \\
59023 &:= -3! - 20 + 9^5. \\
59024 &:= -4! - 2 + 0! + 9^5. \\
59025 &:= -5^2 + 0! + 9^5. \\
59026 &:= -(6 - 2)! + 0! + 9^5. \\
59035 &:= -5 \times 3 + 0! + 9^5. \\
59036 &:= -6 - 3! - 0! + 9^5. \\
59038 &:= -8 - 3 + 0 + 9^5. \\
59039 &:= -9 - (3 \times 0)! + 9^5. \\
59043 &:= -3 - 4 + 0! + 9^5. \\
59045 &:= -5 + (4 \times 0)! + 9^5. \\
59046 &:= -6 + 4 - 0! + 9^5. \\
59048 &:= -(84 \times 0)! + 9^5. \\
59062 &:= 2 \times 6 + 0! + 9^5. \\
59073 &:= 3 \times (7 + 0!) + 9^5. \\
59074 &:= 4! + (7 \times 0)! + 9^5. \\
59086 &:= \sqrt{\sqrt{6^8} + 0!} + 9^5. \\
59098 &:= 8 \times (\sqrt{9})! + 0! + 9^5. \\
59129 &:= 9^2 - 1 + 9^5. \\
59144 &:= 4 \times 4! - 1 + 9^5. \\
59145 &:= 5! - 4! + 1 \times 9^5. \\
59159 &:= 9^5 - 1 - 9 + 5!. \\
59175 &:= 5! + 7 - 1 + 9^5. \\
59193 &:= 3^{9+1} + (\sqrt{9})!!/5. \\
59194 &:= 4! \times (\sqrt{9})! + 1 + 9^5. \\
59229 &:= (\sqrt{9})!!/2^2 + 9^5. \\
59263 &:= \sqrt{3!^6} - 2 + 9^5. \\
59275 &:= (5! - 7) \times 2 + 9^5. \\
59283 &:= 3!! \times 82 + \sqrt{9^5}. \\
59289 &:= (-\sqrt{9} + 8)! \times 2 + 9^5. \\
59349 &:= \sqrt{9!/4 - 3!!} + 9^5. \\
59375 &:= 5^{7-3} \times 95. \\
59385 &:= (5! - 8) \times 3 + 9^5. \\
59392 &:= (-2 + 9)^3 + 9^5. \\
59397 &:= (-7! + 9!)/3! - \sqrt{9^5}. \\
59409 &:= 90 \times 4 + 9^5. \\
59455 &:= (5! - 5) \times (\sqrt{4^9} + 5). \\
59481 &:= 18 \times 4! + 9^5. \\
59529 &:= ((\sqrt{9})! - 2) \times 5! + 9^5. \\
59645 &:= -5! - 4 + 6! + 9^5. \\
59655 &:= 5 \times 5! + 6 + 9^5. \\
59683 &:= 3!! - 86 + 9^5. \\
59776 &:= 6! + \sqrt{7 \times 7} + 9^5. \\
59793 &:= 3!! + (\sqrt{9 + 7})! + 9^5. \\
59796 &:= -6! + (\sqrt{9} + 7!) \times \sqrt{(\sqrt{9})!!/5}. \\
59874 &:= 4! + 7!/8 \times 95. \\
59904 &:= -\sqrt{40^{+9}} \times (\sqrt{9} - 5!). \\
59945 &:= (5^4 + (\sqrt{9})!) \times 95. \\
59949 &:= (\sqrt{9})!!/4 + (\sqrt{9})!! + 9^5. \\
59968 &:= -\sqrt{8^6} + 9! / ((\sqrt{9})!!/5!). \\
60359 &:= (9! - 5 - 3! - 0!) / 6. \\
60456 &:= \sqrt{6!/5} \times (-\sqrt{4} + (0! + 6)!). \\
60459 &:= (9! - 5! - (4 - 0!)!) / 6. \\
60469 &:= 9!/6 - 4 - 0! - 6. \\
60495 &:= -5 + (9! + (4 + 0!)!) / 6. \\
60595 &:= -5 + (9! + (5 + 0!)!) / 6. \\
60992 &:= 2^9 + 9! / (0 + 6).
\end{aligned}
\begin{aligned}
61834 &:= (-4 + 3!!/8) \times (-1 + 6!). \\
62504 &:= 4 \times (0! + \sqrt{5^{2 \times 6}}). \\
63468 &:= 86 \times (4! - 3! + 6!). \\
63624 &:= (4! + 2^6) \times (3 + 6!). \\
63924 &:= ((4! - 2)^{\sqrt{9}} + 3!) \times 6. \\
63994 &:= (49 - 9)^3 - 6. \\
64368 &:= 8! + 6^{3!} / \sqrt{4} + 6!. \\
64449 &:= (9 - 4!)^4 + \sqrt{4!^6}. \\
64518 &:= 8!/15 \times 4! + 6. \\
64792 &:= 2^{9+7} - 4! - 6!. \\
64806 &:= (6! + 0! + 8!/4) \times 6. \\
64809 &:= 9 \times (0! + (8 + \sqrt{4}) \times 6!). \\
64814 &:= (4 \times 1)^8 - \sqrt{4} - 6!. \\
64836 &:= (6! + 3! + 8!/4) \times 6. \\
64888 &:= 8! - 8 + 8^4 \times 6. \\
64896 &:= \sqrt{(6 + 98)^4} \times 6. \\
64986 &:= 6!/8 \times ((\sqrt{9})!! + \sqrt{4}) + 6. \\
65125 &:= 521 \times \sqrt{5^6}. \\
65284 &:= 4^8 - 2 \times (5! + 6). \\
65422 &:= 2^{(2^4)} - 5! + 6. \\
65484 &:= 4^8 + 4 - 56. \\
65488 &:= 8 \times (8 \times 4^5 - 6). \\
65528 &:= -8 + 2^{5+5+6}. \\
65536 &:= (6/3)^{5+5+6}. \\
65735 &:= -5^{3!} + (-7 + 5!) \times 6!. \\
66396 &:= -6 + 93 \times (6! - 6). \\
66399 &:= -\sqrt{9} + 93 \times (6! - 6). \\
66738 &:= 8! + 37 \times (6! - 6). \\
67195 &:= -5 + (9! + (1 + 7)!) / 6. \\
67239 &:= 93 \times (\sqrt{2 + 7} + 6!). \\
67509 &:= 9 \times (0! + \sqrt{5^7 \times 6!}). \\
67536 &:= (6 + 3)! / 5 - 7 \times 6!. \\
67969 &:= -(\sqrt{9})!! \times 69 + 7^6. \\
68579 &:= 97 \times (-5 - 8 + 6!). \\
68992 &:= (2^9 + (\sqrt{9})!!) \times 8!/6!. \\
69152 &:= 2^5 \times (1 + \sqrt{9} \times 6!). \\
69216 &:= (6! + 1^2) \times 96. \\
69312 &:= (2 + 1 \times 3!!) \times 96. \\
69336 &:= 6^3 + 3!! \times 96. \\
69399 &:= -9 + (\sqrt{9} + 3!!) \times 96. \\
69497 &:= -7 + ((\sqrt{9})!! + 4) \times 96. \\
69504 &:= (4 + (0! + 5)!) \times 96. \\
69693 &:= -3 + ((\sqrt{9})! + 6!) \times 96. \\
69694 &:= -\sqrt{4} + ((\sqrt{9})! + 6!) \times 96. \\
69699 &:= \sqrt{9} + ((\sqrt{9})! + 6!) \times 96. \\
69791 &:= -1 + ((\sqrt{9})!! + 7) \times 96. \\
69792 &:= ((2 \times \sqrt{9})! + 7) \times 96. \\
69794 &:= \sqrt{4} + ((\sqrt{9})!! + 7) \times 96. \\
69847 &:= 7! + 4^8 - 9 - 6!. \\
70585 &:= \sqrt{5^8} \times (5! + 0!) - 7!. \\
72559 &:= 9!/5 - 5 \times 2 - 7.
\end{aligned}$$

$$\begin{aligned}
72569 &:= (\sqrt{9} + 6)!/\sqrt{5^2} - 7. \\
72581 &:= (1 + 8)!/5 - 2 + 7. \\
72583 &:= (\sqrt{\sqrt{3^8}}!)/\sqrt{5^2} + 7. \\
72893 &:= (3 \times (\sqrt{9})!!/8)^2 - 7. \\
73088 &:= 8 \times (8^{0!+3} + 7!). \\
73236 &:= (6 - 3!!) \times (2 - 3!!)/7. \\
73296 &:= 6! + 9! \times 2/(3 + 7). \\
73597 &:= (7! + 9!)/5 + 3! + 7. \\
73805 &:= 5^{(-0!+8)} + 3!! - 7!. \\
74263 &:= (3 + 6! - 2)^{\sqrt{4}}/7. \\
74348 &:= 8! + (4 + 3!!) \times 47. \\
74366 &:= (6! \times (6! + 3) + \sqrt{4})/7. \\
74385 &:= -5!/8 \times (3^4 - 7!). \\
74455 &:= 5 \times ((5! + \sqrt{4})^{\sqrt{4}} + 7). \\
74464 &:= (4 - 6!) \times (4! - \sqrt{4^7}). \\
74468 &:= (-8 + (6! + \sqrt{4})^{\sqrt{4}})/7. \\
74879 &:= (9! - 7 + 8! \times 4)/7. \\
75243 &:= -3!! \times 4 - 2 + 5^7. \\
75245 &:= -5 \times 4^{1!} + 5^7. \\
75519 &:= -(\sqrt{9})! + 15 \times (-5 + 7!). \\
75965 &:= -5! \times 6 \times \sqrt{9} + 5^7. \\
75989 &:= \sqrt{9} \times (8 - (\sqrt{9})!!) + 5^7. \\
77378 &:= -8! + 7^{3!} + 7 \times 7. \\
77405 &:= -(5 + 0!)! + (-\sqrt{4} + 7)^7. \\
77406 &:= -6! + 0! + (-\sqrt{4} + 7)^7. \\
77559 &:= 9!/5 - 57 + 7!. \\
77609 &:= 9!/(-0! + 6) + 7! - 7. \\
77946 &:= 6 \times (4!^{\sqrt{9}} + 7) - 7!. \\
78005 &:= -5! + (-0! + (\sqrt{0! + 8})!)^7. \\
78119 &:= -(\sqrt{9})! + (-1 + (\sqrt{1 + 8})!)^7. \\
78125 &:= 5^{2+\sqrt{18+7}}. \\
78132 &:= (2 + 3)^{(-1+8)} + 7. \\
78489 &:= (9 + 8)^4 + 8 - 7!. \\
78965 &:= 5! + 6! + (-\sqrt{9} + 8)^7. \\
78974 &:= \sqrt{4} \times (-7!/(\sqrt{9})! + 8! + 7). \\
79085 &:= 5! \times 8 + (-0! + (\sqrt{9})!)^7. \\
79128 &:= 8 \times 21^{\sqrt{9}} + 7!. \\
79823 &:= -3!! + 2 \times 8! - 97. \\
79879 &:= ((\sqrt{9})!^7 - 8!)/\sqrt{9} + 7. \\
79947 &:= (7!/4 + 9) \times 9 \times 7. \\
79983 &:= (3!^8/\sqrt{9} + 9)/7. \\
80297 &:= -7^{\sqrt{9}} + 2 \times (0 + 8!). \\
80394 &:= \sqrt{4} \times (-\sqrt{9} - (3! - 0!)! + 8!). \\
80582 &:= 2 \times 8! - 50 - 8. \\
80585 &:= -5 + 8! - 50 + 8!. \\
80614 &:= -4! + \sqrt{\sqrt{16}} \times (-0! + 8!). \\
80752 &:= 2 \times (57 - 0! + 8!). \\
80754 &:= \sqrt{4} \times (57 + (0 + 8)!!). \\
80765 &:= \sqrt{5^6} + (7 + 0!)! + 8!. \\
81542 &:= 2 \times (451 + 8!). \\
82934 &:= 4^{1!} \times (\sqrt{9})! - 2 - 8.
\end{aligned}$$

$$\begin{aligned}
82946 &:= 6 \times 4!^{\sqrt{9}} + \sqrt{\sqrt{2 \times 8}}. \\
83195 &:= (5 \times ((\sqrt{9})! + 1))^3 + 8!. \\
83349 &:= 9 \times (4! - 3)^{\sqrt{\sqrt{3^8}}}. \\
83523 &:= 3!!/2 \times 5! + 3 + 8!. \\
83526 &:= 6!/2 \times 5! + 3! + 8!. \\
83528 &:= (-8/2 + 5!) \times 3!! + 8. \\
83664 &:= \sqrt{4!^6} \times 6 + (\sqrt{\sqrt{3^8}})!!.. \\
84075 &:= 5 \times (7^{0!+4} + 8). \\
84092 &:= 290^{\sqrt{4}} - 8. \\
84864 &:= (-4! + 6!) \times \sqrt{8^4} + 8!. \\
85293 &:= 3^{(\sqrt{9})!+2} \times (5 + 8). \\
85305 &:= (5! + 0!) \times (3!! - 5!/8). \\
85655 &:= -5! + 5! \times 6! - \sqrt{5^8}. \\
85663 &:= -3^6 + 6! \times 5! - 8. \\
85665 &:= 5! \times (6! - 6) - 5!/8. \\
85673 &:= -3!! - 7 + 6! \times (\sqrt{\sqrt{\sqrt{5^8}}}). \\
85695 &:= 5! \times ((\sqrt{9})!! - 6) + 5!/8. \\
85698 &:= 8! + (9! + 6!/5)/8. \\
85775 &:= 5! \times 7!/7 - \sqrt{5^8}. \\
85944 &:= 4! + (-4 + (\sqrt{9})!!) \times (\sqrt{\sqrt{\sqrt{5^8}}})!. \\
85945 &:= -5! \times (4 - (\sqrt{9})!!) - \sqrt{\sqrt{5^8}}. \\
85995 &:= (5! - \sqrt{9}) \times ((\sqrt{9})!! + 5!/8). \\
86332 &:= (2 + 3)! \times 3!! - 68. \\
86335 &:= 5! \times 3!! + 3 - 68. \\
86357 &:= -7 + 5! \times 3!! - \sqrt{\sqrt{6^8}}. \\
86365 &:= 5! \times 6! - \sqrt{3^6} - 8. \\
86436 &:= 6! \times (3 + \sqrt{4})! + \sqrt{\sqrt{6^8}}. \\
86515 &:= (5! + 1) \times \left( -5 + \left( \sqrt{\sqrt{\sqrt{6^8}}} \right)! \right). \\
86556 &:= 6! \times 5! + 5! + \sqrt{\sqrt{6^8}}. \\
86735 &:= 5! \times 3!! + \sqrt{7^6} - 8. \\
86927 &:= -7^2 + (\sqrt{9})!^6 + 8!. \\
87368 &:= 8!/6 \times (3! + 7) + 8. \\
87846 &:= 6 \times \sqrt{(4 - 8 - 7)^8}. \\
87976 &:= -6^7 + 9! + 7! - 8. \\
88416 &:= 6^{1+4} + 8! + 8!. \\
88826 &:= -6 + 2 \times (8! + \sqrt{8^8}). \\
88829 &:= -\sqrt{9} + 2 \times (8! + \sqrt{8^8}). \\
89253 &:= (-3 + 5!) \times 9 - 8!. \\
89264 &:= \sqrt{4} \times (62 \times (\sqrt{9})!! - 8). \\
90973 &:= 37^{\sqrt{9}} + (-0! + 9)!. \\
91125 &:= (5 \times (-2 + 11))^{\sqrt{9}}. \\
91245 &:= 5! + (4! + 21)^{\sqrt{9}}. \\
91449 &:= 9!/4 + (4 - 1)!! + 9. \\
91567 &:= (7!/6! + 5!) \times (1 + (\sqrt{9})!!). \\
91975 &:= -5 + (7! + 9!)/(1 + \sqrt{9}). \\
91978 &:= (-8 + 7! + 9!)/(1 + \sqrt{9}). \\
92096 &:= (6! + (\sqrt{9})!! - 0!) \times 2^{(\sqrt{9})!}.
\end{aligned}$$

## 6 Selfie Numbers in Increasing and Decreasing Orders of Digits

$120 := (-0! + (1+2)!!)$	$= ((2+1)! - 0!)!!$	$5759 := -5/5 + 7! + (\sqrt{9})!!$	$= (\sqrt{9})!! + 7! - 5/5.$
$184 := (-1+4!) \times 8$	$= 8 \times (4! - 1).$	$6459 := 4! + (-5+6!) \times 9$	$= 9 \times (6! - 5) + 4!.$
$595 := -5! - 5 + (\sqrt{9})!!$	$= (\sqrt{9})!! - 5 - 5!!.$	$6472 := 2 \times (-4+6!) + 7!$	$= 7! + (6! - 4) \times 2.$
$734 := 3!! + \sqrt{4} \times 7$	$= 7 \times \sqrt{4} + 3!!.$	$6480 := (0! + 4) \times \sqrt{6^8}$	$= 8 \times 6! + (4 - 0!)!!.$
$791 := \sqrt{1+7!} + (\sqrt{9})!!$	$= (\sqrt{9})!! + 71.$	$6498 := (\sqrt{4} + (\sqrt{\sqrt{9^8}})) \times 9$	$= \sqrt{\sqrt{\sqrt{9^8}}} \times (6! + \sqrt{4}).$
$797 := 77 + (\sqrt{9})!!$	$= (\sqrt{9})!! + 77.$	$6549 := 4! + (5+6!) \times 9$	$= 9 \times (6! + 5) + 4!.$
$1436 := 1 \times 3!! - 4 + 6!$	$= 6! - 4 + 3!! \times 1.$	$6595 := 5! - 5 + 6! \times 9$	$= 9 \times 6! - 5 + 5!!.$
$1438 := (-1+3!) \times \sqrt{-4+8}$	$= \sqrt{8-4} \times (3!! - 1).$	$7920 := \sqrt{0! + (-2+7)!} \times (\sqrt{9})!!$	$= (\sqrt{9})!! \times \sqrt{(7-2)! + 0!}.$
$1785 := (-1+5!) \times (7+8)$	$= (8+7) \times (5! - 1).$	$8448 := 4! \times 4 \times 88$	$= 88 \times 4 \times 4!.$
$2159 := -1 - (2-5) \times (\sqrt{9})!!$	$= \sqrt{9} \times (5-2)!! - 1.$	$8595 := (-5+5!) \times 8) \times 9$	$= 9 \times (8 \times 5! - 5).$
$2197 := \sqrt{(-1+2 \times 7)(\sqrt{9})!}$	$= ((\sqrt{9})! + 7)^{2+1}.$	$9360 := (0! + 3! + 6) \times (\sqrt{9})!!$	$= (\sqrt{9})!! \times (6 + 3! + 0!).$
$2846 := -2 + 4 \times (6! - 8)$	$= (-8+6!) \times 4 - 2.$	$10079 := (0! + 0!) \times (1+7!) - \sqrt{9}$	$= (\sqrt{9})!! \times 7 \times (1+0!) - 0!.$
$2880 := (0! + 2)!! \times \sqrt{8+8}$	$= \sqrt{8+8} \times (2+0!)!!.$	$10098 := (0! + 0!) \times ((-1+8)! + 9)$	$= (9+(8-1)!) \times (0! + 0!).$
$2907 := (0! + 2)^7 + (\sqrt{9})!!$	$= \sqrt{9^7} + (2+0!)!!.$	$10785 := (-0! + (1+5)!) \times (7+8)$	$= (8+7) \times ((5+1)! - 0!).$
$2952 := (2 \times 2)! \times (5! + \sqrt{9})$	$= (\sqrt{9} + 5!) \times (2 \times 2)!!.$	$10786 := 0! + (-1+6!) \times (7+8)$	$= (8+7) \times (6! - 1) + 0!.$
$3249 := (2+3!!)/\sqrt{4} \times 9$	$= 9 \times (\sqrt{4} + 3!!)/2.$	$11648 := (1+1)^4 \times (6! + 8)$	$= (8+6!) \times 4^{1+1}.$
$3582 := (-2+3!!) \times 5 - 8$	$= -8 + 5 \times (3!! - 2).$	$12924 := ((1+2)!! \times 2 - 4) \times 9$	$= -9 \times (4 - 2 \times (2+1)!!).$
$3590 := -0! + 3!! \times 5 - 9$	$= -9 + 5 \times 3!! - 0!!.$	$12942 := ((1+2)!! \times 2 - \sqrt{4}) \times 9$	$= 9 \times (-\sqrt{4} + 2 \times (2+1)!!).$
$3630 := (-0! + 3!) \times (3! + 6!)$	$= (6+3!!) \times (3! - 0!!).$	$12943 := 1 + (2 \times 3!! - \sqrt{4}) \times 9$	$= 9 \times (-\sqrt{4} + 3!! \times 2) + 1.$
$3798 := (3+7!/8) \times (\sqrt{9})!$	$= (\sqrt{9})! \times (-87+3!!).$	$12957 := (-1 - (-2+5)!! + 7!) \times \sqrt{9}$	$= \sqrt{9} \times (7! - (5-2)!! - 1).$
$3840 := (-0! + 3!)! \times 4 \times 8$	$= 8 \times 4 \times (3! - 0!!).$	$12999 := (1 + (2 + (\sqrt{9})!!) \times (\sqrt{9})!) \times \sqrt{9} = \sqrt{9} \times ((\sqrt{9})! \times ((\sqrt{9})!! + 2) + 1).$	$= (-(\sqrt{9})!! + 8!)/3 - 11.$
$3977 := (-3!! + 7!) - 7\sqrt{9}$	$= -(\sqrt{9})!! + 7! - 7^3.$	$13189 := -11 + (-3!! + 8!)/\sqrt{9}$	$= (-(\sqrt{9})!! + 8!)/3 - 1 - 1.$
$4095 := -0! + \sqrt{\sqrt{4^{(-5+9)}}!}$	$= \sqrt{\sqrt{(9-5)^4}!} - 0!!.$	$13198 := -(1+1)! + (-3!! + 8!)/\sqrt{9}$	$= 8 + (4+4)!/3 \times 1.$
$4097 := 0! + \sqrt{\sqrt{4^{(\sqrt{7+9})}}!}$	$= \sqrt{(9-7)^4}! + 0!!.$	$13448 := \sqrt{((-1+3)!! - 4)^4 - 8}$	$= 9 + (4+4)!/3 \times 1.$
$4309 := 0! + (3!! - \sqrt{4}) \times (\sqrt{9})!$	$= (\sqrt{9})! \times (-\sqrt{4} + 3!!) + 0!!.$	$13449 := 1 + ((3! + \sqrt{4})! + 4!)/\sqrt{9}$	$= -6!/\sqrt{4} + 4!^3 \times 1.$
$4320 := -(0! + 2)!! + (3+4)!!$	$= (4+3)! - (2+0!)!!.$	$13536 := (1+3!)! + 3!^5 + 6!$	$= 6^5 + 3!! + (3! + 1)!!.$
$4330 := (0! + 3!!) \times 3! + 4$	$= 4 + 3! \times (3!! + 0!!).$	$13560 := (-0! + (-1+3)!) \times 5! - 6!$	$= -6! + 5! \times ((3! - 1)! - 0!!).$
$4331 := -1 + 3! \times (3!! + \sqrt{4})$	$= (\sqrt{4} + 3!!) \times 3! - 1.$	$13644 := -1 \times 3!!/\sqrt{4} + \sqrt{4!^6}$	$= -6!/4 + 4!^3 \times 1.$
$4334 := 3! \times (3!! + \sqrt{4}) + \sqrt{4}$	$= \sqrt{4} + (\sqrt{4} + 3!!) \times 3!!.$	$13673 := (13+3!) \times 6! - 7$	$= -7 + 6! \times (3 \times 3! + 1).$
$4335 := 3 \times (3!! \times \sqrt{4} + 5)$	$= (5 + \sqrt{4} \times 3!!) \times 3.$	$13674 := (-1 + 3!! \times \sqrt{4}) \times 6 + 7!$	$= 7! + 6 \times (\sqrt{4} \times 3!! - 1).$
$4338 := 3! \times (3 + (4!/8)!!)$	$= (8 - \sqrt{4}) \times (3 + 3!!).$	$13832 := (1+23)^3 + 8$	$= (8+3!!) \times \sqrt{3!!/2 + 1}.$
$4356 := 3! \times ((\sqrt{4+5})! + 6!)$	$= (6 + (\sqrt{5+4})!!) \times 3!!.$	$13944 := (1^3 + 4)! + 4!^{\sqrt{9}}$	$= (9-4)! + 4!^3 \times 1.$
$4392 := (2 \times 3!! + 4!) \times \sqrt{9}$	$= \sqrt{9} \times (4! + 3!! \times 2).$	$14355 := ((-1+3)!) \times 4 - 5 \times 5$	$= 5 \times (-5 + 4 \times (3!! - 1)).$
$4752 := -2 \times (4! + 5!) + 7!$	$= 7! - (5! + 4!) \times 2.$	$14373 := (-1 + 3!!) \times (3 + 4!) - 7!$	$= -7! + (4! + 3) \times (3!! - 1).$
$4917 := -(1+4)! + 7! - \sqrt{9}$	$= -\sqrt{9} + 7! - (4+1)!!.$	$14385 := \sqrt{(-1+3)!!^4 - 5!}/8$	$= -8 + \sqrt{5!^4} - 3! - 1.$
$4947 := -4! \times 4 + 7! + \sqrt{9}$	$= \sqrt{9} + 7! - 4 \times 4!!.$	$14390 := -0! + \sqrt{(-1+3)!!^4} - 9$	$= 9!/4! - 3!! - 10.$
$4959 := (\sqrt{4} + 5)! - 9 \times 9$	$= -9 \times 9 + (5 + \sqrt{4})!!.$	$14391 := \sqrt{(1+1+3)!!^4} - 9$	$= -9 + (\sqrt{4} + 3)!^{1+1}.$
$4967 := -\sqrt{4^6} + 7! - 9$	$= -9 + 7! - 64.$	$14392 := 1 + \sqrt{(2+3)!!^4} - 9$	$= -9 + (\sqrt{4} + 3)!^2 + 1.$
$4976 := -\sqrt{4^6} + 7 \times (\sqrt{9})!!$	$= (\sqrt{9})!! \times 7 - 64.$	$14393 := -1 + \sqrt{(3!!/3)!!^4} - (\sqrt{9})!$	$= 9!/4! - 3!! - 3! - 1.$
$4979 := \sqrt{4} + 7 \times (-9 + (\sqrt{9})!!)$	$= ((\sqrt{9})!! - 9) \times 7 + \sqrt{4}.$	$14394 := \sqrt{(1^3 + 4)!!^4} - (\sqrt{9})!$	$= \sqrt{(9-4)!!^4} - 3! \times 1.$
$5075 := ((0! + 5)! + 5) \times 7$	$= 7 \times (5 + (5+0!)!!).$	$14398 := \sqrt{(-1+3)!!^4} - 8 + (\sqrt{9})!$	$= \sqrt{(-\sqrt{9} + 8)!!^4} - 3 + 1.$
$5076 := 0! + (5+6!) \times 7$	$= 7! + 6 \times (5+0!!).$	$14420 := (0! + (1+2)!!) \times (-4 + 4!!)$	$= (-4+4!) \times ((2+1)!! + 0!!).$
$5171 := 11 + 5! + 7!$	$= 7! + 5! + 11.$	$14423 := -1 + \sqrt{(2+3)!!^4} + 4!$	$= 4! + (\sqrt{4} + 3)!^2 - 1.$
$5391 := (-1+3! - 5!) \times 9$	$= 9 \times (-5! + 3!! - 1).$	$14424 := (1+2)!! \times (-4 + 4!!) + 4!$	$= 4! + (-4+4!) \times (2+1)!!.$
$5735 := 3!! - 5 \times 5 + 7!$	$= 7! - 5 \times 5 + 3!!.$		

$$\begin{aligned}
14435 &:= (-1 + (3!! + \sqrt{4}) \times 4) \times 5 &= \sqrt{5!^4} + 4 + 31. \\
14495 &:= -1 + 4! \times (4 - 5! + (\sqrt{9})!!) &= ((\sqrt{9})!! - 5! + 4) \times 4! - 1. \\
14520 &:= (0! + (-1 + 2 + 4)!) \times 5! &= 5! \times ((4 + 2 - 1)! + 0!). \\
14739 &:= 1 \times 3 \times \sqrt{(4! - 7)(\sqrt{9})!} &= \sqrt{9} \times (-7 + 4!)^3 \times 1. \\
14885 &:= 1 + \sqrt{(\sqrt{4} + 5!)^{\sqrt{8+8}}} &= \sqrt{(\sqrt{8+8} + 5!)^4 + 1}. \\
14976 &:= -1 \times 4! \times 6 + 7! \times \sqrt{9} &= \sqrt{9} \times 7! - 6!/4 + 1. \\
15120 &:= (0! + 1 + 1) \times (2 + 5)! &= (5 + 2)! \times (1 + 1 + 0!). \\
15137 &:= 1 + 1 + 3 \times (5 + 7)! &= (7! + 5) \times 3 + 1 + 1. \\
15358 &:= 1 - 3 + 5! \times (5! + 8) &= (8 + 5!) \times 5! - 3 + 1. \\
15474 &:= (-1 + 4) \times (-\sqrt{4} + 5! + 7!) &= (7! + 5! - \sqrt{4}) \times (4 - 1). \\
15565 &:= -\sqrt{(1 + 5)! \times 5} + 5^6 &= -\sqrt{6! \times 5} + 5^{5+1}. \\
15620 &:= 0! - (1 + 2)! + 5^6 &= -6 + 5^{(2+1)!} + 0!. \\
15626 &:= 1 + \sqrt{\sqrt{256+6}} &= (6 - 6)! + 5^{(2+1)!}. \\
15630 &:= -01 + 3! + 5^6 &= 6 + 5^{3!} - 1 \times 0!. \\
15632 &:= 1 + 2 \times 3 + 5^6 &= 6 + 5^{3 \times 2} + 1. \\
15633 &:= -1 + 3 \times 3 + 5^6 &= 6 + 5^{3!} + 3 - 1. \\
15696 &:= (-1 + 5)! \times (-66 + (\sqrt{9})!!) &= ((\sqrt{9})!! - 66) \times (5 - 1)!. \\
15839 &:= -1 + 3!! \times (5 + 8 + 9) &= (9 + 8 + 5) \times 3!! - 1. \\
15840 &:= (-0! - 1 + 4!) \times (-5 + 8)!! &= (8 - 5)!! \times (4! - 1 - 0!). \\
16445 &:= (-1^4 + 4!) \times (-5 + 6!) &= (6! - 5!/4!) \times (4! - 1). \\
16490 &:= -0! - (1 - 4!) \times (6! - \sqrt{9}) &= (-\sqrt{9} + 6!) \times (4! - 1) - 0!. \\
16491 &:= (-1 + 1 \times 4!) \times (6! - \sqrt{9}) &= (-\sqrt{9} + 6!) \times (4! \times 1 - 1). \\
16497 &:= (-1 + 4!) \times 6! - 7 \times 9 &= -9 \times 7 + 6! \times (4! - 1). \\
16554 &:= (-1 + 4! \times (-5 + 5)!) \times 6 &= 6 \times ((-5 + 5)! \times 4! - 1). \\
16561 &:= 1 + (-1 + 5)! \times 6! - 6! &= -6! + 6! \times (5 - 1)! + 1. \\
16629 &:= (-1 + (-2 + 6)!) \times (6! + \sqrt{9}) &= (\sqrt{9} + 6!) \times ((6 - 2)! - 1). \\
16798 &:= (1 + 6) \times \sqrt{7^8} - 9 &= -9!/8! + 7^{6-1}. \\
17233 &:= 1 + (-2 + 3!!) \times (-3 + 7)! &= (7 - 3)! \times (3!! - 2) + 1. \\
17245 &:= (1 + 2)!! \times 4! - 5 \times 7 &= -7 \times 5 + 4! \times (2 + 1)!!. \\
17265 &:= (1 + 2) \times (-5 + 6! + 7!) &= (7! + 6! - 5) \times (2 + 1). \\
17273 &:= (1 + 2)!! \times (-3 + 7)! - 7 &= -7 + (7 - 3)! \times (2 + 1)!!. \\
17295 &:= ((1 + 2)!! + 5 + 7!) \times \sqrt{9} &= \sqrt{9} \times (7! + 5 + (2 + 1)!!). \\
17446 &:= -1 \times \sqrt{4} + 4! \times (6! + 7) &= (7 + 6!) \times 4! - \sqrt{4} \times 1. \\
17447 &:= -1 + 4! \times ((-4 + 7)!! + 7) &= (7 + (7 - 4)!!) \times 4! - 1. \\
17497 &:= 1 + 4! \times (7!/7 + 9) &= (9 + 7!/7) \times 4! + 1. \\
17999 &:= -1 + (7 + 9 + 9) \times (\sqrt{9})!! &= (\sqrt{9})!! \times (9 + 9 + 7) - 1. \\
18424 &:= (-1 + \sqrt{(2 \times 4!)^4}) \times 8 &= 8 \times (4 \times 4!^2 - 1). \\
18432 &:= 12 \times 3! \times \sqrt{4^8} &= 8 \times 4!^3/(2 + 1)!. \\
19143 &:= (-11 + 3!!) \times (4! + \sqrt{9}) &= (\sqrt{9} + 4!) \times (3!! - 11). \\
19376 &:= -1 + (3 \times 6! - 7) \times 9 &= 9 \times (-7 + 6! \times 3) - 1. \\
19419 &:= -11 \times 4! + \sqrt{9^9} &= \sqrt{9^9} - 4! \times 11. \\
19437 &:= -1 \times 3 + 4 \times 7! - (\sqrt{9})!! &= -(\sqrt{9})!! + 7! \times 4 - 3 \times 1. \\
19440 &:= (-01 + 4 + 4!) \times (\sqrt{9})!! &= \sqrt{9^4} \times 4! \times 10. \\
19446 &:= (-1 + 4) \times (\sqrt{4} + 6! \times 9) &= (\sqrt{9})! + 6! \times (4! + 4 - 1). \\
19539 &:= -(1 + 3)! - 5! + \sqrt{9^9} &= \sqrt{9^9} - 5! - (3 + 1)!. \\
19557 &:= (1 + 5!) \times 5! + 7! - \sqrt{9} &= -\sqrt{9} + 7! + 5! \times (5! + 1). \\
19559 &:= 1 - 5 - 5! + \sqrt{9^9} &= \sqrt{9^9} - 5! - 5 + 1. \\
19569 &:= -1 \times 5! + 6 + \sqrt{9^9} &= \sqrt{9^9} + 6 - 5! \times 1. \\
19659 &:= -(-1 + 5)! + (-6 + 9)^9 &= \sqrt{9^9} - 6 \times (5 - 1).
\end{aligned}
\begin{aligned}
19682 &:= -1 + ((-2 + 6)!) / 8^9 &= \sqrt{9^8} \times 6/2 - 1. \\
19689 &:= -\sqrt{\sqrt{16} + 8 + \sqrt{9^9}} &= \sqrt{9^9} + (8 - 6 + 1)!. \\
19795 &:= -1 + 5! - 7 + \sqrt{9^9} &= \sqrt{9^9} - 7 + 5! - 1. \\
19796 &:= (-1 + 6)! - 7 + \sqrt{9^9} &= \sqrt{9^9} - 7 + (6 - 1)!. \\
19899 &:= (\sqrt{1 + 8})!^{\sqrt{9}} + \sqrt{9^9} &= \sqrt{9^9} + (\sqrt{9})! \sqrt{\sqrt{8^1}}. \\
19923 &:= (1 + 2)!! / 3 + \sqrt{9^9} &= \sqrt{9^9} + 3!! / (2 + 1). \\
19945 &:= 1 + 4! \times (5! - 9 + (\sqrt{9})!!) &= (\sqrt{9})! \times (\sqrt{9})!! + 5^{(4-1)!}. \\
20743 &:= (02 \times 3!)^4 + 7 &= 7 + (4! \times 3!)^2 \times 0!. \\
20879 &:= -0! + \sqrt{2 \times 7! \times 8!} + (\sqrt{9})!! &= (\sqrt{9})!! + 8 \times 7!/2 - 0!. \\
21539 &:= -1 + (-2 + 3!!) \times 5 \times (\sqrt{9})! &= (\sqrt{9})! \times 5 \times (3!! - 2) - 1. \\
21594 &:= (-1 + (2 + 4)!) \times 5 \times (\sqrt{9})! &= (\sqrt{9})! \times (5 \times (4 + 2)! - 1). \\
21744 &:= ((1 + 2)!! - 4!) \times 4! + 7! &= 7! - 4! \times (4! - (2 + 1)!!). \\
21952 &:= (1 + 2 + 25)^{\sqrt{9}} &= ((9 + 5) \times 2)^{2+1}. \\
22864 &:= (-22 + 4 \times 6!) \times 8 &= 8 \times (6! \times 4 - 22). \\
22976 &:= 2 \times (-2 + 6!) \times (7 + 9) &= (9 + 7) \times (6! - 2) \times 2. \\
23040 &:= ((0! + (0! + 2)!) + 3!!) \times 4 &= 4 \times (3!! + ((2 + 0!) + 0!!)). \\
23044 &:= (0! + 2 \times 3!) \times 4 \times 4 &= 4 \times (4 \times 3! \times 2 + 0!). \\
23048 &:= (0! + (2 \times 3!) \times 4) \times 8 &= 8 \times (4 \times (3 \times 2)! + 0!). \\
23184 &:= ((1 + 2)! - 3!!) \times 4! + 8! &= 8! + 4! \times (3! - (2 + 1)!!). \\
23593 &:= -2 - 33 \times (5 - (\sqrt{9})!!) &= ((\sqrt{9})!! - 5) \times 33 - 2. \\
23858 &:= 2 + 3! \times (-5! + \sqrt{8^8}) &= (\sqrt{8^8} - 5!) \times 3! + 2. \\
24192 &:= ((1 + 2)^2)!! / (4! - 9) &= 9! / (-4 - 2 + 21). \\
24334 &:= 23^3 \times \sqrt{\sqrt{4 \times 4}} &= (4! - 4 + 3)^3 \times 2. \\
24389 &:= (2 + \sqrt{\sqrt{3^{4+8}}})^{\sqrt{9}} &= \sqrt{(-\sqrt{9} + 8 \times 4)^{3 \times 2}}. \\
24395 &:= 2 \times 3 + (4! + 5)^{\sqrt{9}} &= (\sqrt{9})! + \sqrt{(5 + 4!)^{3 \times 2}}. \\
24434 &:= 2 + 3! \times \sqrt{\sqrt{4^{4!}} - 4!} &= (\sqrt{\sqrt{4^{4!}} - 4!}) \times 3! + 2. \\
24480 &:= (0! + 2)!! \times (\sqrt{4} + 4 \times 8) &= (8 \times 4 + \sqrt{4}) \times (2 + 0!!). \\
24546 &:= ((2 \times 4)^4 - 5) \times 6 &= 6 \times (-5 + 4^{4+2}). \\
24564 &:= (-2 + 4 \times 4^5) \times 6 &= 6!/5! \times \sqrt{\sqrt{4^{4!}} - 2}. \\
25137 &:= 1 - 2^{3!} + 5 \times 7! &= 7! \times 5 - 3 \times 21. \\
25176 &:= (1 + 2)! + 5 \times (-6 + 7!) &= (7! - 6) \times 5 + (2 + 1)!. \\
25179 &:= -12 + 5 \times 7! - 9 &= (\sqrt{9})!! \times 7 \times 5 - 21. \\
25191 &:= (1 + (1 + 2)!)! \times 5 - 9 &= -9 + 5 \times ((2 + 1)! + 1)!. \\
25200 &:= (-0! + (0! + 2)!) \times (2 + 5)! &= 5 \times ((2 + 2^0)! + 0!!). \\
25210 &:= ((0! + (1 + 2)!) + 2) \times 5 &= 5 \times (2 + ((2 + 1)! + 0!!)). \\
25270 &:= ((0! + 2)!! + 2) \times 5 \times 7 &= 7 \times 5 \times (2! + (2 + 0!!)). \\
25914 &:= -(1 + 2)! + 4! \times 5! \times 9 &= 9 \times 5! \times 4! - (2 + 1)!. \\
25915 &:= (-1 + (2 + 5)!) \times 5 + (\sqrt{9})!! &= (\sqrt{9})!! + 5 \times ((5 + 2)! - 1). \\
25917 &:= (1 + 2)!! + 5 \times 7! - \sqrt{9} &= (\sqrt{9})!! + (7! \times 5 - 2 - 1). \\
25919 &:= -1 + (-2 + 5)! \times (\sqrt{9})! \times (\sqrt{9})!! &= 9! / (9 + 5) - 2 + 1. \\
25920 &:= (02^2)!! \times 5! \times 9 &= 9! / (-5 - 2)! + 20. \\
25921 &:= 1 + (2 \times 2)! \times 5! \times 9 &= 9! / ((5 + 2) \times 2) + 1. \\
25922 &:= 2 + (2 \times 2)! \times 5! \times 9 &= 9! / ((5 + 2) \times 2) + 2. \\
25924 &:= 2 \times 2 + 4! \times 5! \times 9 &= 9 \times 5! \times 4! + 2 + 2. \\
25929 &:= (2 \times 2)! \times 5! \times 9 + 9 &= 9 + 9! / ((5 + 2) \times 2). \\
25937 &:= 2 + 3! + 5 \times (7! + \sqrt{9}) &= (\sqrt{9} + 7!) \times 5 + 3!! + 2. \\
25938 &:= (2 + 3 \times 5! \times 8) \times 9 &= 9 \times (8 \times 5! \times 3 + 2). \\
25946 &:= 2 + 4! + 5! \times 6^{\sqrt{9}} &= \sqrt{(\sqrt{9})!^6} \times 5! + 4! + 2. \\
25949 &:= 2 + (4! \times 5! + \sqrt{9}) \times 9 &= 9 \times (\sqrt{9} + 5! \times 4!) + 2.
\end{aligned}$$

$$\begin{aligned}
26064 &:= ((0! + 2)!! + 4) \times 6 \times 6 \\
26136 &:= 12 \times 3 \times (6! + 6) \\
26398 &:= -2 + 3! \times (-6! + 8!) / 9 \\
26640 &:= (0! + (2 + 4) \times 6) \times 6! \\
26896 &:= 2 \times (6 + (6 + 8!) / \sqrt{9}) \\
26934 &:= 2 \times (3 + \sqrt{4!^6}) - (\sqrt{9}!!) \\
26998 &:= -2 + (\sqrt{\sqrt{6^8}} - (\sqrt{9}!!)) \sqrt{9} \\
27436 &:= (2 + 3!!) \times (-4 + 6 \times 7) \\
27626 &:= \sqrt{2 \times (2 + 6!)} \times (6! + 7) \\
27634 &:= \sqrt{-2 + 3!} \times (\sqrt{4!^6} - 7) \\
27643 &:= 2 \times (-3! + \sqrt{4!^6}) + 7 \\
27839 &:= -2 + \sqrt{(3! + 7)^8} - (\sqrt{9}!!) \\
28319 &:= -1 + 2 \times (3!! + 8! / \sqrt{9}) \\
28552 &:= (-2 + 2 \times 5!) \times 5! - 8 \\
28558 &:= 2 - 5 + \sqrt{(5 + 8)^8} \\
28832 &:= 2 \times (2 - 3!!) \times 8 + 8! \\
28864 &:= 2 \times (4 - 6!) \times 8 + 8! \\
29438 &:= (-2 + 3!!) \times (4 \times 8 + 9) \\
29507 &:= -0! + (-2 - 5! + 7!) \times (\sqrt{9}!) = (\sqrt{9}!) \times (7! - 5! - 2) - 0!. \\
29517 &:= (1 + 2)! \times (-5! + 7!) - \sqrt{9} = -\sqrt{9} + (7! - 5!) \times (2 + 1)! \\
29519 &:= -1 + (2^5 + 9) \times (\sqrt{9}!!) = (-9 + 9^5) / 2 - 1. \\
29520 &:= (0! + 2)!! \times (2^5 + 9) = (\sqrt{9}!! + 5!)^2 \times 2 + 0. \\
29556 &:= ((2 + 5)! - 5! + 6) \times (\sqrt{9}!) = (\sqrt{9}!) \times (6 - 5! + (5 + 2)!!). \\
29574 &:= (2 + 4) \times (-5! + 7! + 9) = (9 + 7! - 5!) \times (4 + 2). \\
29736 &:= (-2 \times 3! + 6!) \times 7 \times (\sqrt{9}!) = (\sqrt{9}!) \times 7 \times (6! - 3! \times 2). \\
29997 &:= (2 \times 7! - 9 \times 9) \times \sqrt{9} = \sqrt{9} \times (-9 \times 9 + 7! \times 2). \\
30097 &:= 0! + (-0! + 3!) + 7! \times (\sqrt{9}!) = (\sqrt{9}!) \times (7! - (3 + 0!)!) + 0!. \\
30197 &:= -0! + (-1 - 3! + 7!) \times (\sqrt{9}!) = -(\sqrt{9}!) \times (7 - (3! + 1)!) - 0!. \\
30239 &:= -0! + (-2 + 3 \times 3!) \times (\sqrt{9}!) = 9! / ((3 + 3) \times 2) - 0!. \\
30275 &:= ((0! + 2)! \times 3!! + 5) \times 7 = 7 \times (5 + 3! \times (2 + 0!)!!). \\
30287 &:= -0! + 2 \times 3 \times (7! + 8) = (8 + 7!) \times 3! - (2 \times 0!). \\
30294 &:= (0! + 2)! \times ((3 + 4)! + 9) = (9 + (4 + 3)!) \times (2 + 0!)!. \\
30347 &:= -0! + 3! \times (-3! + 4! + 7!) = (7! + 4! - 3!) \times 3! - 0!. \\
30367 &:= 0! + (3 + 3!) \times 6 \times 7 = 7 \times 6 \times (3! + 3) + 0!. \\
30373 &:= (0! + 3! \times (3 + 3!)) \times 7 = 7 \times (3! \times (3 + 3!)) + 0!. \\
30954 &:= (-0! + (3 + 4)! + 5!) \times (\sqrt{9}!) = (\sqrt{9}!) \times (5! \times 43 - 0!). \\
30959 &:= -0! + 3!! \times (5! + 9) / \sqrt{9} = (\sqrt{9}!! \times (9 + 5!)) / 3 - 0!. \\
31249 &:= -1 + 2 \times (3 + \sqrt{4})^{(\sqrt{9}!)^3} = (9 - 4)^{3!} \times 2 - 1. \\
31256 &:= 1 \times 2 \times (3 + 5^6) = 6 + 5^{3!} \times 2 \times 1. \\
31614 &:= 11 \times (-3! + 4 \times 6!) = (6! \times 4 - 3!) \times 11. \\
31680 &:= (0! - 13) \times 6! + 8! = 8! - 6! \times 3! \times (1 + 0!). \\
31686 &:= (1 - 3!! - 6!) \times 6 + 8! = 8! - 6 \times (6! + 3!! - 1). \\
32258 &:= 2 - (2^3)! / 5 + 8! = -8!/5 + (3! + 2)! + 2. \\
32391 &:= (-1 + (2 + 3) \times 3!!) \times 9 = 9 \times (3!! \times (3 + 2) - 1). \\
32398 &:= -2 + 3!! \times (-3 + 8) \times 9 = 9 \times (8 - 3) \times 3!! - 2. \\
32568 &:= 23 \times (5! + \sqrt{6^8}) = 8! - 6^5 + (3! - 2)!. \\
32888 &:= (2 + 3)! + 8 \times \sqrt{8^8} = 8 \times \sqrt{8^8} + (3 + 2)!. \\
33120 &:= (0! + 1) \times 23 \times 3!! = 3!! \times (3!^2 + 10). \\
33264 &:= 2 \times ((3 + 3!!) \times 4! - 6!) = (-6! + 4! \times (3 + 3!!)) \times 2.
\end{aligned}
\begin{aligned}
&= 6! \times (6! + 4) / 20. \\
&= 6 \times 6 \times (3!! + (2 + 1)!!). \\
&= (-\sqrt{9} + 8! - 6!) / 3 \times 2!. \\
&= 6! + 6^4 \times 20. \\
&= (98 + 66)^2. \\
&= (\sqrt{9}!) \times (64 + 3)^2. \\
&= \sqrt{((\sqrt{9}!) \times (\sqrt{9} - 8))^6} - 2. \\
&= (7 \times 6 - 4)^3 / 2. \\
&= (7 + 6!) \times (6^2 + 2). \\
&= (-7 + (6 \times 4)^3) \times 2. \\
&= 7 + (-6 + 4!)^3 \times 2. \\
&= ((\sqrt{9}!! - 887)^2. \\
&= ((\sqrt{9}!! + 8! / 3) \times 2 - 1. \\
&= -8 + 5! \times (5! \times 2 - 2). \\
&= 8! \times 85 / 5! - 2. \\
&= 8! - 8 \times (3!! - 2) \times 2. \\
&= 8! - 8 \times (6! - 4) \times 2. \\
&= (9 + 8 \times 4) \times (3!! - 2). \\
&= -0! + (-2 - 5! + 7!) \times (\sqrt{9}!) = (\sqrt{9}!) \times (7! - 5! - 2) - 0!. \\
&= -\sqrt{9} + (7! - 5!) \times (2 + 1)!. \\
&= (-9 + 9^5) / 2 - 1. \\
&= (\sqrt{9}!! + 5!)^2 \times 2 + 0. \\
&= (\sqrt{9}!) \times (6 - 5! + (5 + 2)!!). \\
&= (9 + 7! - 5!) \times (4 + 2). \\
&= (\sqrt{9}!) \times 7 \times (6! - 3! \times 2). \\
&= \sqrt{9} \times (-9 \times 9 + 7! \times 2). \\
&= 0! + (-0! + 3!) + 7! \times (\sqrt{9}!) = (\sqrt{9}!) \times (7! - (3 + 0!)!) + 0!. \\
&= -0! + (-1 - 3! + 7!) \times (\sqrt{9}!) = -(\sqrt{9}!) \times (7 - (3! + 1)!) - 0!. \\
&= -0! + (-2 + 3 \times 3!) \times (\sqrt{9}!) = 9! / ((3 + 3) \times 2) - 0!. \\
&= ((0! + 2)! \times 3!! + 5) \times 7 = 7 \times (5 + 3! \times (2 + 0!)!!). \\
&= -0! + 2 \times 3 \times (7! + 8) = (8 + 7!) \times 3! - (2 \times 0!). \\
&= (0! + 2)! \times ((3 + 4)! + 9) = (9 + (4 + 3)!) \times (2 + 0!)!. \\
&= -0! + 3! \times (-3! + 4! + 7!) = (7! + 4! - 3!) \times 3! - 0!. \\
&= 0! + (3 + 3!) \times 6 \times 7 = 7 \times 6 \times (3! + 3) + 0!. \\
&= (0! + 3! \times (3 + 3!)) \times 7 = 7 \times (3! \times (3 + 3!)) + 0!. \\
&= (-0! + (3 + 4)! + 5!) \times (\sqrt{9}!) = (\sqrt{9}!) \times (5! \times 43 - 0!). \\
&= -0! + 3!! \times (5! + 9) / \sqrt{9} = (\sqrt{9}!! \times (9 + 5!)) / 3 - 0!. \\
&= -1 + 2 \times (3 + \sqrt{4})^{(\sqrt{9}!)^3} = (9 - 4)^{3!} \times 2 - 1. \\
&= 1 \times 2 \times (3 + 5^6) = 6 + 5^{3!} \times 2 \times 1. \\
&= 11 \times (-3! + 4 \times 6!) = (6! \times 4 - 3!) \times 11. \\
&= (0! - 13) \times 6! + 8! = 8! - 6! \times 3! \times (1 + 0!). \\
&= (1 - 3!! - 6!) \times 6 + 8! = 8! - 6 \times (6! + 3!! - 1). \\
&= 2 - (2^3)! / 5 + 8! = -8!/5 + (3! + 2)! + 2. \\
&= (-1 + (2 + 3) \times 3!!) \times 9 = 9 \times (3!! \times (3 + 2) - 1). \\
&= -2 + 3!! \times (-3 + 8) \times 9 = 9 \times (8 - 3) \times 3!! - 2. \\
&= 23 \times (5! + \sqrt{6^8}) = 8! - 6^5 + (3! - 2)!. \\
&= (2 + 3)! + 8 \times \sqrt{8^8} = 8 \times \sqrt{8^8} + (3 + 2)!. \\
&= (0! + 1) \times 23 \times 3!! = 3!! \times (3!^2 + 10). \\
&= 2 \times ((3 + 3!!) \times 4! - 6!) = (-6! + 4! \times (3 + 3!!)) \times 2.
\end{aligned}
\begin{aligned}
33384 &:= (-3 + 3! \times (3!! - 4!!)) \times 8 \\
33485 &:= 3!! - 3 + \sqrt{4^{5! / 8}} \\
33584 &:= (3! \times 3!! - \sqrt{4} - 5!) \times 8 \\
33594 &:= 33 \times (4^5 - (\sqrt{9}!)!) \\
33597 &:= -3 + \sqrt{3!! \times 5} \times 7! / 9 \\
33598 &:= (-3! - 3! + 5 \times 8!) / (\sqrt{9}!) \\
33831 &:= -(1 + 3!!) \times 3 \times 3 + 8! \\
33834 &:= -3!! - 3! + 3!! \times 48 \\
33840 &:= -03!! + 3!! \times 48 \\
33842 &:= 2 - 3!! + 3!! \times 48 \\
34384 &:= (3! \times (3!! - 4) + \sqrt{4}) \times 8 \\
34440 &:= (-0! + 3!! \times \sqrt{4} - 4) \times 4! \\
34476 &:= 3 \times 4 \times (4 \times 6! - 7) \\
34531 &:= (-1 + 3!! + 3!!) \times 4! - 5 \\
34535 &:= (3!! + 3!!) \times 4! - 5 \times 5 \\
34541 &:= (-1 + 3!! \times \sqrt{4}) \times 4! + 5 \\
34543 &:= (-3! + 3!! \times 4!) \times \sqrt{4} - 5 \\
34549 &:= 3!! \times (4! + 4!) - 5 - (\sqrt{9}!) \\
34624 &:= 2^{3!} + (4! + 4!) \times 6! \\
34632 &:= (2 \times 3!! + 3) \times 4 \times 6 \\
34638 &:= 3! \times (-3 + (\sqrt{4} + 6!) \times 8) \\
34698 &:= 3! \times ((4 + 6!) \times 8 - 9) \\
34703 &:= -0! + 3! \times (3!! + 4! + 7!) \\
34768 &:= -\sqrt{(3! + \sqrt{4})^6} - 7! + 8! \\
34776 &:= (-3 \times 4 \times 6 + 7!) \times 7 \\
34784 &:= (-3!! + 4! + 4 + 7!) \times 8 \\
34832 &:= 2 \times ((3! + 3!!) \times 4! - 8) \\
34974 &:= (3!! + 4!) \times 47 + (\sqrt{9}!) \\
34993 &:= ((3 \times 3!)^4 + \sqrt{9}) / \sqrt{9} \\
35147 &:= (1 + 3!) \times (-4! + 5 + 7!) \\
35184 &:= -(1 + 3!) + 4! - 5! + 8! \\
35247 &:= 2 + (3 + 4) \times (-5 + 7!) \\
35448 &:= -(3!! - 4!) \times (\sqrt{4} + 5) + 8! \\
35496 &:= (3!! - 4!) \times (5! - 69) \\
35856 &:= -3! \times (5! / 5 + 6!) + 8! \\
35873 &:= -3!! \times 3! - 5! - 7 + 8! \\
35933 &:= 33^3 + 5 - 9 \\
35934 &:= 33^{4+5} - \sqrt{9} \\
35937 &:= ((9 + 7 - 5) \times 3)^3 \\
35943 &:= 33^{\sqrt{4+5}} + (\sqrt{9}!) \\
35950 &:= (-0! + 3!!) \times (5 + 5 \times 9) \\
35989 &:= -3! - 5 + 8! - (\sqrt{9}!) \times (\sqrt{9}!!) = -(\sqrt{9}!! \times (\sqrt{9}!) + 8! - 5 - 3!) \\
36384 &:= -3! \times (3!! - \sqrt{4^6}) + 8! \\
36432 &:= 2 \times (3^{3!} \times 4! + 6!) \\
36438 &:= -3 \times 3!^4 + 6 + 8! \\
36719 &:= -1 + 3!! \times (6 \times 7 + 9) \\
36755 &:= (3 + 5)! - 5 \times (6! - 7) \\
36840 &:= (-0! + 3!) \times (4! - 6!) + 8! \\
36936 &:= (3!! - 36) \times 6 \times 9 \\
36944 &:= (3!! + 4!^{4/6}) / 9
\end{aligned}
\begin{aligned}
&= 8 \times ((-4! + 3!!) \times 3! - 3). \\
&= 8^{5! / 4!} - 3 + 3!. \\
&= 8 \times (-5! - \sqrt{4} + 3! \times 3!!). \\
&= -(\sqrt{9}!) + 5 \times (\sqrt{4^3}) / 3!. \\
&= (-9 + 7! \times 5! / 3!) / 3. \\
&= = (-9 + 8! \times 5 - 3) / 3!. \\
&= 8! - 3 \times 3 \times (3!! + 1). \\
&= 8! - (\sqrt{4} + 3 \times 3!!) \times 3. \\
&= 8! - \sqrt{4} \times 3!! - (3! + 0!)!. \\
&= 8! + \sqrt{4} - 3!! \times 3^2. \\
&= 8 \times (\sqrt{4} + (-4 + 3!!) \times 3!). \\
&= 4! \times (-4 + \sqrt{4} \times 3!! - 0!). \\
&= (-7 + 6! \times 4) \times 4 \times 3. \\
&= -5 + 4! \times (3!! + 3! - 1). \\
&= -5 \times 5 + 4! \times (3!! + 3!). \\
&= 5 + 4! \times (\sqrt{4} \times 3!! - 1). \\
&= -5 + \sqrt{4} \times (4! \times 3!! - 3!). \\
&= -(\sqrt{9}!) - 5 + (4! + 4!) \times 3!. \\
&= 64 + 4! \times 3!! \times 2. \\
&= 6 \times 4 \times (3 + 3!) \times 2. \\
&= (8 \times (6! + \sqrt{4}) - 3) \times 3!. \\
&= (-9 + 8 \times (6! + 4)) \times 3!. \\
&= (7! + 4! + 3!) \times 3! - 0!. \\
&= 8! - 7! - \sqrt{64^3}. \\
&= 7 \times (7! - 6 \times 4 \times 3). \\
&= 8 \times (7! + 4 + 4! - 3!). \\
&= (-8 + 4! \times (3! + 3!!)) \times 2. \\
&= 9 \times (-7! / 4! + 4^{3!}). \\
&= ((9 + 9)^4 + 3) / 3. \\
&= 7 \times (5 - 4! + (3! + 1)!). \\
&= 8! - 5! + 4! - (3! + 1)!. \\
&= (7! - 5) \times (4 + 3) + 2. \\
&= 8! + (5 + \sqrt{4}) \times (4! - 3!!). \\
&= (9 - \sqrt{6! \times 5}) \times (4! - 3!!). \\
&= 8! - (6! + 5!/5) \times 3!. \\
&= 8! - 7 - 5! - 3! \times 3!!. \\
&= -9 + 5 + 33^3. \\
&= -\sqrt{9} + (5!/4 + 3)^3. \\
&= 33^{5+7-9}. \\
&= (\sqrt{9}!) + (5!/4 + 3)^3. \\
&= (9 \times 5 + 5) \times (3!! - 0!). \\
&= -9 + 5 + 33^3. \\
&= -\sqrt{9} + (5!/4 + 3)^3. \\
&= 33^{5+7-9}.
\end{aligned}$$

$$\begin{aligned}
36975 &:= (3!! + 5) \times (6 \times 7 + 9) \\
37248 &:= -(-2 + 3!!) \times \sqrt{4^7} + 8! \\
37584 &:= -(\sqrt{\sqrt{3^4}})^5 + 7! + 8! \\
37794 &:= (3!!/\sqrt{4} + 7!) \times 7 - (\sqrt{9})!! \\
37804 &:= -0! + (3 + \sqrt{4})^7 - 8! \\
37928 &:= (2^3)! - \sqrt{7^8} + 9 \\
37944 &:= (3!! + 4!) \times (4! - 7) \times \sqrt{9} \\
37948 &:= (-3!! + 4) \times (-7 \times 8 + \sqrt{9}) \\
37998 &:= 3!!^7 - (8! + \sqrt{9}) \times (\sqrt{9})! \\
38133 &:= -1 \times 3 \times 3^{3!} + 8! \\
38136 &:= -(1 + 3)! - 3 \times 6! + 8! \\
38159 &:= -1 + 3!! \times (5 + 8 \times (\sqrt{9})!!) \\
38183 &:= -1 + 3 \times (-3!! + 8) + 8! \\
38232 &:= ((2 \times 2)! - 3!!) \times 3 + 8! \\
38234 &:= 2 - 3 \times (3!! - 4!) + 8! \\
38272 &:= -2 \times 2^{3+7} + 8! \\
38384 &:= -3!!^3/4! + 8 + 8! \\
38515 &:= (-1 - 3 \times 5!) \times 5 + 8! \\
38520 &:= (0! + 2) \times (-3!! + 5!) + 8! \\
38527 &:= 2 + 3!! + 5^7 - 8! \\
38528 &:= (2 + 3!! - 5!) \times 8 \times 8 \\
38535 &:= 3 \times (-3!! + 5 + 5!) + 8! \\
38584 &:= -3!! - 4^5 + 8 + 8! \\
38640 &:= -(0! + 3!!) \times \sqrt{4}/6 + 8! \\
38652 &:= 2 \times (-3!! - 5! + 6) + 8! \\
38760 &:= -(-0! + 3!!) \times (6 + 7) + 8! \\
38766 &:= (-3! - \sqrt{6^6}) \times 7 + 8! \\
38824 &:= -2 \times (3!! + 4!) - 8 + 8! \\
38863 &:= -3!! - 3^6 - 8 + 8! \\
38868 &:= -(3! + 6!) \times \sqrt{\sqrt{8} + 8} + 8! \\
38944 &:= -3!! + \sqrt{\sqrt{\sqrt{4^{4!}}} + 8!} - (\sqrt{9})!! = -(\sqrt{9})!! + 8! + \sqrt{\sqrt{\sqrt{4^{4!}}} - 3!!} \\
38961 &:= (1 + 3! \times 6! + 8) \times 9 \\
39033 &:= (-0! + 3! \times (3 + 3!!)) \times 9 \\
39088 &:= -03!! + 8! - 8^{\sqrt{9}} \\
39159 &:= (1 + (3!! + 5) \times (\sqrt{9})!!) \times 9 \\
39276 &:= (2 + 3! \times (6! + 7)) \times 9 \\
39294 &:= -2 \times (\sqrt{3!^4} - \sqrt{9^9}) \\
39304 &:= 0 \times 3 + 34^{\sqrt{9}} \\
39328 &:= -2 + (-3! + 3^8) \times (\sqrt{9})! \\
39378 &:= -3! \times 37 + 8! - (\sqrt{9})!! \\
39393 &:= (3 + 3! \times (3!! + 9)) \times 9 \\
39408 &:= ((0! + 3!!) - 4!) \times 8 - (\sqrt{9})!! \\
39537 &:= -3!! + (3 + 5)! - 7 \times 9 \\
39545 &:= (3! + \sqrt{4})! - 55 - (\sqrt{9})!! \\
39551 &:= (-1 + 3!!) \times 55 + (\sqrt{9})! \\
39576 &:= (3 + 5)! - 6! - (\sqrt{7 + 9})! \\
39580 &:= -(0! + 3) \times 5 + 8! - (\sqrt{9})!!
\end{aligned}
\begin{aligned}
&= (9 + 7 \times 6) \times (5 + 3!!). \\
&= 8 \times (7! - 4! - 3!!/2). \\
&= 87 \times (5! + 4!) \times 3. \\
&= -(\sqrt{9})! + (7! + 7!/4) \times 3!. \\
&= 8! - 7!/\sqrt{4} + 3 + 0!. \\
&= 9 + 8! - 7^{3!-2}. \\
&= 9 \times ((7 - \sqrt{4})! + 4^{3!}). \\
&= (-\sqrt{9} + 8 \times 7) \times (-4 + 3!!). \\
&= 9 \times (-98 + 7! - 3!!). \\
&= 8! - 3^{3+3+1}. \\
&= 8! - 6! \times 3 - (3 + 1)!. \\
&= (\sqrt{\sqrt{\sqrt{\sqrt{9^8}}}})!! \times 53 - 1. \\
&= 8! + (8 - 3!!) \times 3 - 1. \\
&= 8! + 3 \times (-3!! + (2 + 2)!). \\
&= 8! + (4! - 3!!) \times 3 + 2. \\
&= 8! - \sqrt{\sqrt{(7 - 3)^2}}. \\
&= 8! - 8^4 + 3 \times 3!. \\
&= 8! - 5 \times (5! \times 3 + 1). \\
&= 8! - 5 \times 3!!/2 \times 0!. \\
&= 8! + 7 - 5 \times 3!!/2. \\
&= 8 \times 8 \times (-5! + 3!! + 2). \\
&= 8! - 5 \times (5! \times 3 - 3). \\
&= 8! - 8 - \sqrt{(5! + 4!)^3}. \\
&= (-8 + 6^4) \times 30. \\
&= 8! + (6 - 5! - 3!!) \times 2. \\
&= 8! - 7!/6 - 3!! \times 0!. \\
&= 8! - 7 \times (6 + 6^3). \\
&= 8! - 8 - (4! + 3!!) \times 2. \\
&= 8! - 8 - 6! - 3^{3!}. \\
&= 8! - \sqrt{\sqrt{8 + 8}} \times (6 + 3!!). \\
&= -(\sqrt{9})!! + 8! + \sqrt{\sqrt{\sqrt{4^{4!}}} - 3!!}. \\
&= 9 \times (8 + 6 \times 3!! + 1). \\
&= 9 \times (3! \times (3 + 3!!) - 0!). \\
&= -(\sqrt{9})!! + 8! - 8^3 \times 0!. \\
&= 9 \times ((\sqrt{9})! \times (5 + 3!!) + 1). \\
&= 9 \times ((7 + 6!) \times 3! + 2). \\
&= (\sqrt{9})! \times (9^4 - 3! \times 2). \\
&= (-9 + 43)^3 \times 0!. \\
&= (\sqrt{9^8} - 3!) \times 3! - 2. \\
&= (\sqrt{9^8} + \sqrt{7 - 3}) \times 3!. \\
&= 9 \times (9^3 \times 3! + 3). \\
&= -(\sqrt{9})!! + 8 \times (-4! + (3! + 0!!)). \\
&= -9 \times 7 + (5 + 3)! - 3!!. \\
&= -(\sqrt{9})!! - 55 + (\sqrt{4^3})!. \\
&= (\sqrt{9})! + 55 \times (3!! - 1). \\
&= -(\sqrt{9 + 7})! - 6! + (5 + 3)!. \\
&= -(\sqrt{9})!! + 8! - 5!/3! \times 0!.
\end{aligned}
\begin{aligned}
39585 &:= -3!! - 5!/5 + 8! + 9 \\
39590 &:= -0! + (3 + 5)! - 9 - (\sqrt{9})!! \\
39760 &:= ((03 + 6)! - 7!)/9 \\
39761 &:= 1 + ((3 + 6)! - 7!)/9 \\
39762 &:= 2 + ((3 + 6)! - 7!)/9 \\
39769 &:= 3 + 6 + (-7! + 9!)/9 \\
39809 &:= -0! - 3! + 8! - 9!/(\sqrt{9})!! \\
39819 &:= 1 \times 3 + 8! - 9!/(\sqrt{9})!! \\
39825 &:= -2 \times 3^5 + 8! - 9 \\
39840 &:= (-0! + 3!) \times \sqrt{4} + 8! - (\sqrt{9})!! = -(\sqrt{9})!! + 8! + \sqrt{4} \times (3! - 0!)!! \\
39843 &:= -3! \times 3^4 + 8! + 9 \\
39846 &:= -3!! \times 4/6 + 8! + (\sqrt{9})! \\
39852 &:= 2 \times (3! + 5!) + 8! - (\sqrt{9})!! \\
39872 &:= 2^{3!} \times 7 \times 89 \\
39875 &:= (3!! + 5) \times (\sqrt{\sqrt{7^8}} + (\sqrt{9})!) \\
39924 &:= (2^3)! - 4 \times 99 \\
39954 &:= -3 \times (\sqrt{4} + 5!) + 9!/9 \\
39955 &:= -3 \times 5! - 5 + 9!/9 \\
39959 &:= -3 \times 5! + (-9 + 9!)/9 \\
39960 &:= ((-0! + 3!) + 6 \times (\sqrt{9})!!) \times 9 = 9!/9 - 6!/(3 - 0!)!! \\
39996 &:= -36 \times 9 + 9!/9 \\
40080 &:= -(0! + 0!) \times (0! + 4!) + 8! = 8! - (4 + 0!)! \times (0! + 0!)!! \\
40224 &:= ((0! + 2)! + 2)! - 4 \times 4! = -4! \times 4 + (2^{2+0!})!! \\
40249 &:= 0! + (2 \times 4)! - 4! \times \sqrt{9} = -\sqrt{9} \times 4! + (4 \times 2)! + 0! \\
40259 &:= -0! + (2 \times 4)! - \sqrt{5 \times (\sqrt{9})!!} = -\sqrt{(\sqrt{9})!! \times 5 + (4 \times 2)!} - 0! \\
40279 &:= 0! + (2 \times 4)! - 7 \times (\sqrt{9})! = -(\sqrt{9})! \times 7 + (4 \times 2)! + 0! \\
40304 &:= (0! + 0! + 3!)! - 4 \times 4 = -4 \times 4 + (3! + 0! + 0!)!! \\
40330 &:= (0! + 0! + 3!)! + 3! + 4 = 4 + 3! + (3! + 0! + 0!)!! \\
40331 &:= \sqrt{0! + (-1 + 3!)!} + (3! + \sqrt{4})! = (\sqrt{4^3})! + \sqrt{(3! - 1)! + 0!} \\
40333 &:= 0! + 3! + 3! + (3! + \sqrt{4})! = (4!/3)! + 3! + 3! + 0! \\
40339 &:= 0! + 3 \times 3! + (\sqrt{4^{\sqrt{9}}})! = ((\sqrt{9})! + \sqrt{4})! + 3 \times 3! + 0! \\
40340 &:= (0! + 0! + 3!)! - 4 + 4! = 4! - 4 + (3! + 0! + 0!)!! \\
40347 &:= -0! + (3! + \sqrt{4})! + 4 \times 7 = 7 \times 4 + (4!/3)! - 0! \\
40348 &:= (03 + 4) \times 4 + 8! = 8! + 4 \times (4 + 3 \times 0!) \\
40349 &:= -0! + 3! + 4! + (\sqrt{4^{\sqrt{9}}})! = (\sqrt{9})! + 4! + (\sqrt{4^3})! - 0! \\
40367 &:= -0! + (3! + \sqrt{4}) \times (6 + 7)! = (7! + 6) \times (4!/3) - 0! \\
40376 &:= (0! + 3!!) \times \sqrt{\sqrt{4^6}} \times 7 = 7 \times \sqrt{64} \times (3!! + 0!) \\
40377 &:= 0! + (3! + \sqrt{4}) \times (7 + 7)! = (7 + 7!) \times 4!/3 + 0! \\
40391 &:= \sqrt{0! + (1 + 3!)!} + (\sqrt{4^{\sqrt{9}}})! = ((\sqrt{9})! + \sqrt{4})! + \sqrt{(3! + 1)! + 0!} \\
40399 &:= -0! + ((\sqrt{\sqrt{3^4}})!! + 9!)/9 = (\sqrt{9})!!/9 + (\sqrt{4^3})! - 0! \\
40418 &:= 0! + 1 + 4 \times 4! + 8! = 8! + 4 \times 4! + 1 + 0! \\
40436 &:= (-0! + 3!)! - 4 + (\sqrt{\sqrt{4^6}})! = (\sqrt{64})! - 4 + (3! - 0!)!! \\
40439 &:= -0! + (3! + \sqrt{4})! + (-4 + 9)! = (9 - 4)! + (4!/3)! - 0! \\
40463 &:= -0! + 3! \times 4! + (\sqrt{\sqrt{4^6}})! = 6 \times 4! + (4!/3)! - 0! \\
40559 &:= -0! + \sqrt{4} \times 5! + (5 + \sqrt{9})! = (\sqrt{9} + 5)! + 5! \times \sqrt{4} - 0! \\
40583 &:= -0! + 3! \times 4! + 5! + 8! = 8! + 5! + 4! \times 3! - 0! \\
40687 &:= -0! + (46 + 7!) \times 8 = 8! + \sqrt{7^6} + 4! \times 0! \\
40688 &:= 046 \times 8 + 8! = 8! + 8 \times (6 + 40).
\end{aligned}$$

$$\begin{aligned}
40768 &:= \sqrt{04^6} \times 7 + 8! &= 8! + 7 \times 64 \times 0!. &= 8! + 5 \times 4 + (3! + 0!)!. \\
40804 &:= (0! + (0! + 4!)) \times 4 + 8! &= 8! + 4 \times ((4 + 0!)! + 0!). &= 8! + 5 \times 5 + (4 + 3)!!. \\
40824 &:= (-0! - 2 + 4!) \times 4! + 8! &= 8! + 4! + 4! \times 20. &= -(\sqrt{9})! + 9 \times (5 + (4 + 3)!)!. \\
40872 &:= (0! + 2)!! - 4! \times 7 + 8! &= 8! - 7 \times 4! + (2 + 0!)!!. &= 7! + 5! - 5 + (4 + 4)!!. \\
40873 &:= 0! + 3!! - 4! \times 7 + 8! &= 8! - 7 \times 4! + 3! + 0!. &= 8! + 7! + 5! - \sqrt{\sqrt{4} \times 4}. \\
40879 &:= (0! - 4!) \times 7 + 8! + (\sqrt{9})!! &= (\sqrt{9})!! + 8! - 7 \times (4! - 0!). &= 9 \times 7! + 5! - 4/4. \\
40893 &:= \sqrt{(0! + 3!)^4} + 8! - \sqrt{9} &= -\sqrt{9} + 8! + \sqrt{4^{13+0!}}. &= 8! + 5! \times (44 - 0!). \\
40894 &:= 0! + \sqrt{4!^4} + 8! - \sqrt{9} &= -\sqrt{9} + 8! + \sqrt{4!^4} + 0!. &= 7 \times (6! + 5) \times (5 + 4). \\
40983 &:= (-0! + 3!!) \times (48 + 9) &= (\sqrt{\sqrt{9^8} - 4!}) \times (3!! - 0!). &= -(\sqrt{9})!! + 6^6 - 5! \times \sqrt{4}. \\
41039 &:= -0! + (1 + 3 + 4!) + (\sqrt{9})!! &= (\sqrt{9})!! + (4 \times (3 - 1)!) - 0!. &= 9 \times (7! - 5) + 5! \times 4. \\
41040 &:= (0! + 0! + 1)!! + (4 + 4)! &= (4 + 4)! + (1 + 0! + 0!)!!. &= -8! - 5 + 5! \times (-\sqrt{4} + 3!!). \\
41352 &:= 12^3 \times 4! - 5! &= -5! + 4!^3 \times (2 + 1). &45840 := ((-0! + 4)!! - \sqrt{4}) \times 5! - 8! = -8! + 5! \times (-\sqrt{4} + (4 - 0!)!!). \\
41473 &:= 1 + 3 \times 4!^{-4+7} &= (7 - 4) \times 4!^3 + 1. &45864 := 44 \times (5! + 6) + 8! = 8! + (6 + 5!) \times 44. \\
41585 &:= (-1 + 4!) \times 55 + 8! &= 8! + 55 \times (4! - 1). &45938 := -3! + \sqrt{4} + (-5 + 8)!(\sqrt{9})! = (\sqrt{9})!^{(8-5)!} + \sqrt{4} - 3!. \\
41768 &:= 1 + \sqrt{4} \times 6! + 7 + 8! &= 8 \times (7! + 6!/4 + 1). &45957 := 4! \times (-5^5 + 7!) - \sqrt{9} = -\sqrt{9} + (7! - 5^5) \times 4!. \\
41832 &:= (-1 + 2^{3!}) \times 4! + 8! &= 8! + 4! \times 3 \times 21. &45987 := ((4 + 5)! + 7!) / 8 - \sqrt{9} = \sqrt{9^8} \times 7 + 5!/\sqrt{4}. \\
42480 &:= (0! + 2) \times (4!/4)! + 8! &= 8! + (4!/4)! \times (2 + 0!). &45999 := ((\sqrt{4} + 5)! - 9) \times 9 + (\sqrt{9})!! = (\sqrt{9})!! + 9 \times (-9 + (5 + \sqrt{4})!). \\
43184 &:= (1 \times 3!! - 4) \times 4 + 8! &= 8! + 4 \times (-4 + 3!!) \times 1. &46056 := -(-0! + 4)!! + 5! + 6^6 = 6^6 - 5 \times (4 + 0!)!. \\
43230 &:= (0! + 2 \times 3!!) \times (3! + 4!) &= (4! + 3!) \times (3! \times 2 + 0!). &46073 := 03!! \times \sqrt{4^6} - 7 = -7 + 64 \times (3 - 0)!!.
\\
43238 &:= 2 + 3^{3!} \times 4 + 8! &= 8! + 4 \times 3^{3!} + 2. &46074 := 0! + \sqrt{\sqrt{\sqrt{4^{4!}}} \times 6! - 7 = -7 + 6! \times \sqrt{\sqrt{\sqrt{4^{4!}}} + 0!. \\
43535 &:= 3^{3!} + 4 - 5^5 &= -5^5 + 4 + 3!^{3!}. &46296 := \sqrt{\sqrt{2^{4!}} \times 6! + 6^{\sqrt{9}}} = (\sqrt{9})!^6 - 6!/(4 - 2). \\
43595 &:= 3!! + ((\sqrt{4} + 5) \times 5)^{\sqrt{9}} &= (\sqrt{9})!! + (5 + 5!/4)^3. &46394 := -3! - 4^4 + 6^{(\sqrt{9})!} = (\sqrt{9})!^6 - 4^4 - 3!. \\
43631 &:= -1 + 3 \times (3!! + \sqrt{4^{16}}) &= (6! + 4!^3) \times 3 - 1. &46416 := -(1 + 4)! \times \sqrt{4} + 6^6 = 6^6 - \sqrt{4} \times (4 + 1)!. \\
43656 &:= -3!! \times 4 - 5! + 6^6 &= 6^6 - 5! - 4 \times 3!! &46462 := -2 + \sqrt{\sqrt{\sqrt{4^{4!}}} \times (6 + 6!)} = (6 + 6!) \times \sqrt{\sqrt{\sqrt{4^{4!}}} - 2. \\
43680 &:= (0! + 3!!) \times 4/6 + 8! &= (8 + 6!) \times \sqrt{4} \times 30. &46464 := 4 \times 4 \times 4 \times (6! + 6) = (6! + 6) \times 4 \times 4 \times 4. \\
43805 &:= (0! + 3!! - 4!) \times 5 + 8! &= 8! - 5 \times (4! - 3!! + 0!). &46526 := -(2 + 4!) \times 5 + 6^6 = 6^6 - 5 \times (4! + 2). \\
43824 &:= (2 + 3! \times 4!) \times 4! + 8! &= 8! + 4! \times (4! \times 3! + 2). &46539 := \sqrt{\sqrt{3^4} - 5! + 6^{(\sqrt{9})!}} = (\sqrt{9})!^6 - (\sqrt{\sqrt{5^4}}) + 3. \\
43872 &:= -2 \times (3!! + 4!) + 7! + 8! &= 8! + 7! - (4! + 3!!) \times 2. &46546 := (\sqrt{4} - 4!) \times 5 + 6^6 = 6^6 + 5 \times (\sqrt{4} - 4!). \\
43919 &:= -1 + (-3 + 4^{\sqrt{9}}) \times (\sqrt{9})!! &= -(\sqrt{9})!! \times (\sqrt{9} - 4^3) - 1. &46556 := -4 \times 5 \times 5 + 6^6 = 6^6 - 5 \times 5 \times 4. \\
43920 &:= (0! + (2 + 3)!!/\sqrt{4}) \times (\sqrt{9})!! &= (\sqrt{9})!! \times (4^3 - 2 - 0!). &46608 := (-0! + 4)^6 - 6 \times 8 = -8 + 6^6 - 40. \\
43928 &:= (2 + 3!!) \times 4 + 8! + (\sqrt{9})!! &= 9!/8 + (4 - 3!!) \times 2. &46630 := 0! - 3 - 4! + 6^6 = 6^6 + 4 - 30. \\
43974 &:= (3!! - 4! + \sqrt{4}) \times 7 \times 9 &= 9 \times 7 \times (\sqrt{4} - 4! + 3!!). &46635 := -3 \times (\sqrt{4} + 5) + 6^6 = 6 \times (6^5 - 4) + 3. \\
44383 &:= -33 + \sqrt{\sqrt{4^{4!}}} + 8! &= 8! + \sqrt{\sqrt{4^{4!}}} - 33. &46650 := -(0 \times 4)! - 5 + 6^6 = 6^6 - 5 - (4 \times 0)!. \\
44386 &:= -3! - 4! + 4^6 + 8! &= 8! - 6 - 4! + 4^{3!}. &46657 := (\sqrt{4 + 5})^6 - 6 + 7 = 7 - 6 + 6^{(\sqrt{5+4})!}. \\
44392 &:= (2^3)! - 4! + 4^{(\sqrt{9})!} &= ((\sqrt{9})!! - 4) \times (4^3 - 2). &46675 := 7 + 6^6 + \sqrt{5! + 4!} = \sqrt{4! + 5!} + 6^6 + 7. \\
44418 &:= 1 \times \sqrt{\sqrt{4^{4!}}} + \sqrt{4} + 8! &= 8! + \sqrt{4} + 4^{(4-1)!}. &46689 := 4! + 6\sqrt{\sqrt{6^8}} + 9 = 9!/8! + 6^6 + 4!. \\
44428 &:= \sqrt{2^{4!}} + 4!/\sqrt{4} + 8! &= 8! + \sqrt{\sqrt{4^{4!}}} + 4!/2. &46690 := 0! + 4! + 6^6 + 9 = -(\sqrt{9})! + 6^6 + 40. \\
44544 &:= 4 \times 4 \times 4! \times (-4 + 5!) &= (5! - 4) \times 4 \times 4 \times 4!. &46719 := (-1 + 4)^6 + 7 \times 9 = 9 \times 7 + 6^{(4-1)!}. \\
44634 &:= -3! + (\sqrt{\sqrt{\sqrt{4^{4!}}} - \sqrt{4}}) \times 6! = 6! \times (\sqrt{\sqrt{\sqrt{4^{4!}}} - \sqrt{4}} - 3!. &46765 := -4 + 5! + 6^6 - 7 = -7 + 6^6 + 5! - 4. \\
44733 &:= (3 + 3!! \times \sqrt{4}) \times (4! + 7) &= (7 + 4!) \times (\sqrt{4} \times 3!! + 3). &46792 := 2 \times (-4 + 6!) + 7! \times 9 = 9 \times 7! + (6! - 4) \times 2. \\
44798 &:= -\sqrt{4} + ((\sqrt{4} + 7)!! + 8!) / 9 &= (9! + 8!)/(7 + \sqrt{4}) - \sqrt{4}. &46800 := (0! + (0! + 4)!) \times 6! - 8! = -8! + 6! \times ((4 + 0!)! + 0!). \\
44937 &:= ((3 + 4)!! - 47) \times 9 &= 9 \times (7! - 4 - 43). &46926 := (2 + \sqrt{4^6}) \times (6! - 9) = (-9 + 6!) \times (64 + 2). \\
44957 &:= \sqrt{4} + (-45 + 7!) \times 9 &= \sqrt{9} + (7!/4! + \sqrt{4})^{\sqrt{4}}. &46944 := \sqrt{4^{14}/4} + 6^{(\sqrt{9})!} = (\sqrt{9})!^6 + \sqrt{4^{14}/4}. \\
44976 &:= -\sqrt{\sqrt{\sqrt{4^{4!}} \times 6 + 7!} \times 9} &= 9 \times 7! - 6 \times \sqrt{\sqrt{4^{4!}}. &46968 := -4! + 66 \times (-8 + (\sqrt{9})!!) = ((\sqrt{9})!! - 8) \times 66 - 4!. \\
45179 &:= -1 + (-4 \times 5 + 7!) \times 9 &= 9 \times (7! - 5 \times 4) - 1. &47264 := 2 \times (\sqrt{\sqrt{4^{4!}}} - 6!) \times 7 = 7 \times (-6! + \sqrt{\sqrt{4^{4!}}}) \times 2. \\
45238 &:= -2 + (3 + 4)!! - 5! + 8! &= 8! - 5! + (4 + 3!) - 2. &47369 := (\sqrt{\sqrt{3^4}})^6 - 7 + (\sqrt{9})!! = (\sqrt{9})!! - 7 + \sqrt{6^{4 \times 3}}.
\end{aligned}$$

$$\begin{aligned}
47394 &:= (3 + 4!)^4 / 7 - \sqrt{9} \\
47519 &:= -1 + (4! \times 5! + 7!) \times (\sqrt{9})! \\
47520 &:= (0! + 2!) \times (4! \times 5! + 7!) \\
47592 &:= (2 \times (4 + 5!) + 7!) \times 9 \\
47952 &:= (2 \times (4! + 5!) + 7!) \times 9 \\
48488 &:= -4! + 4^8 / 8 + 8! \\
48736 &:= -3! + 4^6 + 7! + 8! \\
48926 &:= (-2 + 4 \times 6!) \times (8 + 9) \\
48984 &:= 4! + (4 + 8 \times 8) \times (\sqrt{9})!! \\
48996 &:= 4 \times (6! \times (8 + 9) + 9) \\
49153 &:= 1 + 3 \times \sqrt{4^{5+9}} \\
49158 &:= (1 + \sqrt{4^{5+8}}) \times (\sqrt{9})! \\
49173 &:= (1 + 3! + 4^7) \times \sqrt{9} \\
49197 &:= (-1 + 4!) \times (-7 + (\sqrt{9})!!) \times \sqrt{9} \\
49474 &:= \sqrt{\sqrt{4^{4!}}} + (\sqrt{4} + 7!) \times 9 \\
49533 &:= 3!^3 + 4! \times 5! - \sqrt{9} \\
49539 &:= 3 + 4! \times 5! + (\sqrt{9})! \times (\sqrt{9})! \\
49676 &:= -4 + 6! \times (6 + 7 \times 9) \\
49728 &:= 2 \times (4! + 7!) + 8! - (\sqrt{9})!! \\
49933 &:= (3 + 34)^{\sqrt{9}} - (\sqrt{9})!! \\
50386 &:= (-0! + 3! \times 5) \times (6 + 8) \\
50397 &:= \sqrt{0! + 3} \times 5 \times 7! - \sqrt{9} \\
50399 &:= -0! + 35 \times ((\sqrt{9})!! + (\sqrt{9})!!) \\
50447 &:= -0! + \sqrt{4} \times (4! + 5 \times 7!) \\
50694 &:= -\sqrt{0! + (\sqrt{4} + 5!) \times (6 - (\sqrt{9})!!)} = -(\sqrt{9})! + 6! \times \sqrt{(5 + \sqrt{4})! + 0!} \\
50759 &:= -0! + (5 \times 5! + 7!) \times 9 \\
51795 &:= ((1 + 5)! - 5 + 7!) \times 9 \\
51796 &:= 1 + (-5 + 6! + 7!) \times 9 \\
51839 &:= -1 + 3! \times 5! \times 8 \times 9 \\
51843 &:= (1 + 3! \times 4!) \times (-5 + 8) \\
51849 &:= (1 + (\sqrt{4 + 5})!! \times 8) \times 9 \\
52488 &:= (2 - 4 + 5)^8 \times 8 \\
53248 &:= 2^{3 \times 4} \times (5 + 8) \\
53856 &:= 3!^5 + 5! \times 6! - 8! \\
53994 &:= -3! + \sqrt{4} \times (5 \times (\sqrt{9})!)^{\sqrt{9}} \\
54480 &:= -(0! + 4!) \times (\sqrt{4} - 5!) + 8! \\
54678 &:= (-4! + 5 + 6!) \times 78 \\
54688 &:= 4 \times (5 \times 6! - 8) + 8! \\
54840 &:= \sqrt{(0! + 4)!^4 + 5! + 8!} \\
54936 &:= (-(\sqrt{3})! + (5 + 6)!)/(\sqrt{9})!! \\
55437 &:= -3 + \sqrt{-4 + 5 + 5!} \times 7! \\
55439 &:= (-3! + (\sqrt{-4 + 5 + 5!})!)/(\sqrt{9})!! \\
55462 &:= (2 + (\sqrt{4} + 5)!) \times (5 + 6) \\
55464 &:= 4! + (\sqrt{-4 + 5 + 5!})!/6! \\
55808 &:= (0! + 5!) \times (5! + 8) + 8! \\
55939 &:= (3 + 5!) + 5^{(\sqrt{9})!} - (\sqrt{9})! \\
55944 &:= (4! + 4 \times 5!) \times (5! - 9) \\
55945 &:= (\sqrt{4 + 5 + 5})! + 5^{(\sqrt{9})!} \\
&= -\sqrt{9^7} \times (\sqrt{4} - 4!) - 3!. \\
&= (\sqrt{9})! \times (7! + 5! \times 4!) - 1. \\
&= (7! + 5! \times 4!) \times (2 + 0!)!. \\
&= 9 \times (7! + (5! + 4) \times 2). \\
&= (-9 + 7!/5) \times 4! \times 2. \\
&= 8! + \sqrt{8^8 \times 4} - 4!. \\
&= 8! + 7! - 6! + 4^{3!}. \\
&= (9 + 8) \times (6! \times 4 - 2). \\
&= (\sqrt{9})!! \times (8 \times 8 + 4) + 4!. \\
&= (9 + (9 + 8) \times 6!) \times 4. \\
&= \sqrt{(\sqrt{9})!!/5} \times 4^{3!} + 1. \\
&= (\sqrt{9})! \times (8^5/4 + 1). \\
&= \sqrt{9} \times (7 + 4^{3!+1}). \\
&= \sqrt{9} \times ((\sqrt{9})!! - 7) \times (4! - 1). \\
&= 9 \times (7! + \sqrt{4}) + \sqrt{\sqrt{4^{4!}}}. \\
&= -\sqrt{9} + 5! \times 4! + 3!^{3!}. \\
&= (\sqrt{9})!^{(\sqrt{9})!} + 5! \times 4! + 3. \\
&= (9 \times 7 + 6) \times 6! - 4. \\
&= -(\sqrt{9})!! + 8! + (7! + 4!) \times 2. \\
&= -(\sqrt{9})!! + (-(\sqrt{9})! + 43)^3. \\
&= (8 + 6) \times (5 \times 3! - 0!). \\
&= \sqrt{9} \times 7^5 - (3 + 0!)!. \\
&= 9!/(\sqrt{9})! \times 5/3! - 0!. \\
&= (7! \times 5 + 4!) \times \sqrt{4} - 0!. \\
&= -(\sqrt{9})! + 6! \times \sqrt{(5 + \sqrt{4})! + 0!} \\
&= 9 \times (7! + 5 \times 5!) - 0!. \\
&= 9 \times (7! - 5 + (5 + 1)!). \\
&= 9 \times (7! + 6! - 5) + 1. \\
&= 9!/(8 + 5 \times 3) - 1. \\
&= (8 - 5) \times (4! \times 3! + 1). \\
&= 9 \times (8 \times (\sqrt{5 + 4})!! + 1). \\
&= 8 \times (85 - 4)^2. \\
&= (8 + 5) \times 4^{3 \times 2}. \\
&= -8! + 6^5 + 5! \times 3!. \\
&= -(\sqrt{9})! + \sqrt{9 \times 5^4} \times 3!. \\
&= 8! + 5! \times (-\sqrt{4} + (4 + 0!)!). \\
&= 8! - 7 \times 6 + \sqrt{5!^4}. \\
&= 8 \times (8!/6 + 5! - 4). \\
&= 8! + \sqrt{5!^4} + (4 + 0!)!. \\
&= (-9! + (6 + 5!/4!)!)/3!. \\
&= 7! \times \sqrt{5! + 5 - 4} - 3. \\
&= (-(\sqrt{9})!)! + (\sqrt{5! + 5 - 4})!/3!. \\
&= (6 + 5) \times ((5 + \sqrt{4})! + 2). \\
&= (6 + 5)!/(\sqrt{5 + 4})!! + 4!. \\
&= 8! + (8 + 5!) \times (5! + 0!). \\
&= -(\sqrt{9})! + (\sqrt{9} + 5!) + 5^{3!}. \\
&= (-9 + 5!) \times (5! \times 4 + 4!). \\
&= (\sqrt{9} + 5)! + 5^{(\sqrt{5+4})!}. \\
&= 56250 := (0! + 2) \times 5^5 \times 6 \\
&= 56760 := \sqrt{0! + 5!} \times (6!/6 + 7!) \\
&= 57344 := (3! + \sqrt{4}) \times 4^5 \times 7 \\
&= 57592 := (-2 + 5! \times 5!) \times \sqrt{7 + 9} \\
&= 57594 := 4 \times 5!^{-5+7} - (\sqrt{9})! \\
&= 57600 := (0! + 0!) \times 5 \times (6! + 7!) \\
&= 57696 := (5 \times 6! + 6) \times (7 + 9) \\
&= 58315 := (-1 + 3! \times 5) \times 5 + 8! \\
&= 58335 := (3 + 3! \times 5) \times 5 + 8! \\
&= 58564 := 4 \times \sqrt{\sqrt{(5! - 5 + 6)^8}} \\
&= 59043 := \sqrt{03^{4 \times 5}} - (\sqrt{9})! \\
&= 59045 := -0! + (4 + 5)^5 - \sqrt{9} \\
&= 59048 := -0! + \sqrt{(4 + 5)^8} \times 9 \\
&= 59052 := (0! + 2)^{5+5} + \sqrt{9} \\
&= 59053 := 0! + 3^{5+5} + \sqrt{9} \\
&= 59054 := -0! + (4 + 5)^5 + (\sqrt{9})! \\
&= 59055 := (-0! + 5 + 5)^5 + (\sqrt{9})! \\
&= 59318 := -1 + (3 \times (5 + 8))^{\sqrt{9}} \\
&= 59409 := (-0! + 4) \times (5! + \sqrt{9^9}) \\
&= 59544 := 4 \times ((4 + 5)! \times 5! + (\sqrt{9})!) \\
&= 59772 := (2 - 5! + 7! + 7!) \times (\sqrt{9})! \\
&= 59784 := 4! + (5 + 78) \times (\sqrt{9})!! \\
&= 59967 := (5! + (6! + 7) \times 9) \times 9 \\
&= 59976 := (5! + 6 - 7) \times 9!/(\sqrt{9})!! \\
&= 59994 := -4 \times 5! - (\sqrt{9})! + 9!/(\sqrt{9})! \\
&= 60467 := -0! + \sqrt{4} \times (-6 + 6 \times 7!) \\
&= 60476 := -04 + (6 + 6) \times 7! \\
&= 60477 := 0! - 4 + 6 \times (7! + 7!) \\
&= 60497 := -0! + \sqrt{4} \times (6 \times 7! + 9) \\
&= 61834 := (1 - 3!) \times (4 - 6!/8) \\
&= 62208 := (0! + 2) \times \sqrt{(2 \times 6)^8} \\
&= 62744 := 2 \times 44 \times (6! - 7) \\
&= 63357 := -3 + (3! + 5) \times (6! + 7!) \\
&= 63994 := (34 + 6)^{\sqrt{9}} - (\sqrt{9})! \\
&= 64638 := (-3!^4 + 6! \times 6!)/8 \\
&= 64798 := -\sqrt{4} + 6 \times (7 + 8) \times (\sqrt{9})!! \\
&= 64824 := 2^{4 \times 4} - 6! + 8 \\
&= 64893 := 3! \times 4^6 + 8! - \sqrt{9} \\
&= 64983 := (3! + \sqrt{4}) \times 6!/8 + \sqrt{9} \\
&= 65735 := 3! \times 5! - 5^6 - 7! \\
&= 66238 := -2 + 36 \times 6! + 8! \\
&= 67228 := (2 + 26) \times \sqrt{7^8} \\
&= 67424 := 2 \times (\sqrt{\sqrt{4^{4!}}} + 6!) \times 7 \\
&= 68352 := (-(-2 + 3!) + 5!) \times (6! - 8) \\
&= 68875 := (5 + 6!) \times (7 + 88) \\
&= 68928 := (-2 + 6!) \times (8 + 8) \times (\sqrt{9})! \\
&= 69119 := -1 + 16 \times (\sqrt{9})! \times (\sqrt{9})!! \\
&= 56250 := (0! + 2) \times 5^5 \times 6 \\
&= 56760 := \sqrt{0! + 5!} \times (6!/6 + 7!) \\
&= 57344 := (3! + \sqrt{4}) \times 4^5 \times 7 \\
&= 57592 := (-2 + 5! \times 5!) \times \sqrt{7 + 9} \\
&= 57594 := 4 \times 5!^{-5+7} - (\sqrt{9})! \\
&= 57600 := (0! + 0!) \times 5 \times (6! + 7!) \\
&= 57696 := (5 \times 6! + 6) \times (7 + 9) \\
&= 58315 := (-1 + 3! \times 5) \times 5 + 8! \\
&= 58335 := (3 + 3! \times 5) \times 5 + 8! \\
&= 58564 := 4 \times \sqrt{\sqrt{(5! - 5 + 6)^8}} \\
&= 59043 := \sqrt{03^{4 \times 5}} - (\sqrt{9})! \\
&= 59045 := -0! + (4 + 5)^5 - \sqrt{9} \\
&= 59048 := -0! + \sqrt{(4 + 5)^8} \times 9 \\
&= 59052 := (0! + 2)^{5+5} + \sqrt{9} \\
&= 59053 := 0! + 3^{5+5} + \sqrt{9} \\
&= 59054 := -0! + (4 + 5)^5 + (\sqrt{9})! \\
&= 59055 := (-0! + 5 + 5)^5 + (\sqrt{9})! \\
&= 59318 := -1 + (3 \times (5 + 8))^{\sqrt{9}} \\
&= 59409 := (-0! + 4) \times (5! + \sqrt{9^9}) \\
&= 59544 := 4 \times ((4 + 5)! \times 5! + (\sqrt{9})!) \\
&= 59772 := (2 - 5! + 7! + 7!) \times (\sqrt{9})! \\
&= 59784 := 4! + (5 + 78) \times (\sqrt{9})!! \\
&= 59967 := (5! + (6! + 7) \times 9) \times 9 \\
&= 59976 := (5! + 6 - 7) \times 9!/(\sqrt{9})!! \\
&= 59994 := -4 \times 5! - (\sqrt{9})! + 9!/(\sqrt{9})! \\
&= 60467 := -0! + \sqrt{4} \times (-6 + 6 \times 7!) \\
&= 60476 := -04 + (6 + 6) \times 7! \\
&= 60477 := 0! - 4 + 6 \times (7! + 7!) \\
&= 60497 := -0! + \sqrt{4} \times (6 \times 7! + 9) \\
&= 61834 := (1 - 3!) \times (4 - 6!/8) \\
&= 62208 := (0! + 2) \times \sqrt{(2 \times 6)^8} \\
&= 62744 := 2 \times 44 \times (6! - 7) \\
&= 63357 := -3 + (3! + 5) \times (6! + 7!) \\
&= 63994 := (34 + 6)^{\sqrt{9}} - (\sqrt{9})! \\
&= 64638 := (-3!^4 + 6! \times 6!)/8 \\
&= 64798 := -\sqrt{4} + 6 \times (7 + 8) \times (\sqrt{9})!! \\
&= 64824 := 2^{4 \times 4} - 6! + 8 \\
&= 64893 := 3! \times 4^6 + 8! - \sqrt{9} \\
&= 64983 := (3! + \sqrt{4}) \times 6!/8 + \sqrt{9} \\
&= 65735 := 3! \times 5! - 5^6 - 7! \\
&= 66238 := -2 + 36 \times 6! + 8! \\
&= 67228 := (2 + 26) \times \sqrt{7^8} \\
&= 67424 := 2 \times (\sqrt{\sqrt{4^{4!}}} + 6!) \times 7 \\
&= 68352 := (-(-2 + 3!) + 5!) \times (6! - 8) \\
&= 68875 := (5 + 6!) \times (7 + 88) \\
&= 68928 := (-2 + 6!) \times (8 + 8) \times (\sqrt{9})! \\
&= 69119 := -1 + 16 \times (\sqrt{9})! \times (\sqrt{9})!! \\
&= 56250 := (0! + 2) \times 5^5 \times 6 \\
&= 56760 := \sqrt{0! + 5!} \times (6!/6 + 7!) \\
&= 57344 := (3! + \sqrt{4}) \times 4^5 \times 7 \\
&= 57592 := (-2 + 5! \times 5!) \times \sqrt{7 + 9} \\
&= 57594 := 4 \times 5!^{-5+7} - (\sqrt{9})! \\
&= 57600 := (0! + 0!) \times 5 \times (6! + 7!) \\
&= 57696 := (5 \times 6! + 6) \times (7 + 9) \\
&= 58315 := (-1 + 3! \times 5) \times 5 + 8! \\
&= 58335 := (3 + 3! \times 5) \times 5 + 8! \\
&= 58564 := 4 \times \sqrt{\sqrt{(5! - 5 + 6)^8}} \\
&= 59043 := \sqrt{03^{4 \times 5}} - (\sqrt{9})! \\
&= 59045 := -0! + (4 + 5)^5 - \sqrt{9} \\
&= 59048 := -0! + \sqrt{(4 + 5)^8} \times 9 \\
&= 59052 := (0! + 2)^{5+5} + \sqrt{9} \\
&= 59053 := 0! + 3^{5+5} + \sqrt{9} \\
&= 59054 := -0! + (4 + 5)^5 + (\sqrt{9})! \\
&= 59055 := (-0! + 5 + 5)^5 + (\sqrt{9})! \\
&= 59318 := -1 + (3 \times (5 + 8))^{\sqrt{9}} \\
&= 59409 := (-0! + 4) \times (5! + \sqrt{9^9}) \\
&= 59544 := 4 \times ((4 + 5)! \times 5! + (\sqrt{9})!) \\
&= 59772 := (2 - 5! + 7! + 7!) \times (\sqrt{9})! \\
&= 59784 := 4! + (5 + 78) \times (\sqrt{9})!! \\
&= 59967 := (5! + (6! + 7) \times 9) \times 9 \\
&= 59976 := (5! + 6 - 7) \times 9!/(\sqrt{9})!! \\
&= 59994 := -4 \times 5! - (\sqrt{9})! + 9!/(\sqrt{9})! \\
&= 60467 := -0! + \sqrt{4} \times (-6 + 6 \times 7!) \\
&= 60476 := -04 + (6 + 6) \times 7! \\
&= 60477 := 0! - 4 + 6 \times (7! + 7!) \\
&= 60497 := -0! + \sqrt{4} \times (6 \times 7! + 9) \\
&= 61834 := (1 - 3!) \times (4 - 6!/8) \\
&= 62208 := (0! + 2) \times \sqrt{(2 \times 6)^8} \\
&= 62744 := 2 \times 44 \times (6! - 7) \\
&= 63357 := -3 + (3! + 5) \times (6! + 7!) \\
&= 63994 := (34 + 6)^{\sqrt{9}} - (\sqrt{9})! \\
&= 64638 := (-3!^4 + 6! \times 6!)/8 \\
&= 64798 := -\sqrt{4} + 6 \times (7 + 8) \times (\sqrt{9})!! \\
&= 64824 := 2^{4 \times 4} - 6! + 8 \\
&= 64893 := 3! \times 4^6 + 8! - \sqrt{9} \\
&= 64983 := (3! + \sqrt{4}) \times 6!/8 + \sqrt{9} \\
&= 65735 := 3! \times 5! - 5^6 - 7! \\
&= 66238 := -2 + 36 \times 6! + 8! \\
&= 67228 := (2 + 26) \times \sqrt{7^8} \\
&= 67424 := 2 \times (\sqrt{\sqrt{4^{4!}}} + 6!) \times 7 \\
&= 68352 := (-(-2 + 3!) + 5!) \times (6! - 8) \\
&= 68875 := (5 + 6!) \times (7 + 88) \\
&= 68928 := (-2 + 6!) \times (8 + 8) \times (\sqrt{9})! \\
&= 69119 := -1 + 16 \times (\sqrt{9})! \times (\sqrt{9})!!
\end{aligned}$$

$$\begin{aligned}
69255 &:= (-25 + 5!) \times (6! + 9) \\
69840 &:= (0! + \sqrt{4} \times 6 \times 8) \times (\sqrt{9})!! \\
69876 &:= 6 \times (6 + 7!) + 8! - (\sqrt{9})!! \\
69948 &:= (-4 + \sqrt{6^8} \times (\sqrt{9})!!) \times 9 \\
69982 &:= -2 + \sqrt{6^8} \times 9 \times (\sqrt{9})! \\
70570 &:= (0! + 0!) \times (5 + 7 \times 7!) \\
71279 &:= -1 + 2 \times 7 \times 7! + (\sqrt{9})!! \\
73088 &:= (-0! + 3)^{7+8} + 8! \\
73395 &:= 3 \times (-3!! + 5 \times (7! - \sqrt{9})) \\
74159 &:= -1 + (-4! + 5! + 7!) \times (\sqrt{9})!! \\
74303 &:= -0! - 3!^{3!} + 4! \times 7! \\
74352 &:= (2 + 3!!) \times (-4! + 5!) + 7! \\
74536 &:= \sqrt{(3 + 4! - 5)^6} \times 7 \\
74758 &:= 8! + 7 \times (7! - 5!) - \sqrt{4} \\
74856 &:= -4! + 5! \times (-6 + 7! / 8) \\
74880 &:= (0! + 4!) \times 78 \times 8 \\
74984 &:= (4 \times 4! + 7) \times (8 + (\sqrt{9})!!) \\
75453 &:= 3 \times (-4! - 5 \times (5 - 7!)) \\
75478 &:= -\sqrt{4} - 5! + 7! \times (7 + 8) \\
75497 &:= \sqrt{4} + 5 \times (-7 + 7!) \times \sqrt{9} \\
75523 &:= -2 + 3 \times 5 \times (-5 + 7!) \\
75549 &:= 4! + 5 \times (-5 + 7!) \times \sqrt{9} \\
75594 &:= \sqrt{45 \times 5} \times 7! - (\sqrt{9})! \\
75599 &:= -(-5 + 5)! + 7! \times ((\sqrt{9})! + 9) \\
75678 &:= 5! + (-6 + 7!) \times 7 + 8! \\
75954 &:= (-\sqrt{4} + 5! + 5 \times 7!) \times \sqrt{9} \\
75955 &:= -5 + (5! + 5 \times 7!) \times \sqrt{9} \\
75984 &:= 4! + 5! \times (7! / 8 + \sqrt{9}) \\
76517 &:= (-1 + 5!) \times (6! - 77) \\
77159 &:= -1 - 5! \times (77 - (\sqrt{9})!!) \\
78149 &:= (1 + 4)^7 + 8 \times \sqrt{9} \\
78624 &:= 2 \times (-4! \times 6 \times 7 + 8!) \\
78954 &:= \sqrt{4} \times (-5! \times 7 + 8! - \sqrt{9}) \\
79228 &:= 2 \times (2 \times 7 + 8! - (\sqrt{9})!!) \\
79248 &:= 2 \times (4! + 7! \times 8 - (\sqrt{9})!!) \\
79680 &:= (-0! + 6!) \times (-7 \times 8 + (\sqrt{9})!!) = ((\sqrt{9})! - 8 \times 7) \times (6 - 0!)!. \\
79885 &:= -5 \times 7 + 8! + 8! - (\sqrt{9})!! \\
79899 &:= -7 \times (8! + \sqrt{9}) + 9! - (\sqrt{9})!! \\
79928 &:= 2 \times (7 + 8!) - (\sqrt{9})! - (\sqrt{9})!! \\
79929 &:= ((-2 + 7)! - 9) \times (\sqrt{9})!! + 9 \\
79934 &:= -3!! + \sqrt{4} \times (7 + 9! / 9) \\
79938 &:= \sqrt{-3 + 7} \times (8! + 9) - (\sqrt{9})!! \\
79944 &:= 4 \times (4 \times 7! + (\sqrt{9})!) - (\sqrt{9})!! \\
79983 &:= -3!! - (7 \times (8! - 9) - 9!) \\
80400 &:= (0! + 0!)! \times (-(-0! + 4!) + 8!) \\
80447 &:= -0! + (-4! + \sqrt{4} \times 7!) \times 8 \\
80570 &:= (0! + 0!) \times (-5 \times 7 + 8!) \\
80585 &:= -055 + 8! + 8! \\
80604 &:= (0! + 0!)! \times (-4! + 6 + 8!) \\
&= (9 + 6!) \times (5! - 5^2). \\
&= 98 \times 6! - (4 - 0!)!! \\
&= -(\sqrt{9})!! + 8! + (7! + 6) \times 6. \\
&= -(\sqrt{9})! + ((\sqrt{9})^8 - 6!)/4!. \\
&= 9 \times \sqrt{(\sqrt{9})!^8} \times 6 - 2. \\
&= (7 \times 7! + 5) \times (0! + 0!). \\
&= (\sqrt{9})!! + 7! \times 7 \times 2 - 1. \\
&= 8! + 8^{7-3+0!}. \\
&= ((-\sqrt{9} + 7!) \times 5 - 3!!) \times 3. \\
&= (\sqrt{9})!! \times (7 + 5! - 4!) - 1. \\
&= 7! \times 4! - 3!^{3!} - 0!. \\
&= 7! + (5! - 4!) \times (3!! + 2). \\
&= 7 \times ((6 + 5) \times \sqrt{4})^3. \\
&= -\sqrt{4} - 5! \times (7 - 7!/8). \\
&= (8 + 7) \times 7! - 6! - 4. \\
&= 8! + 8!/7 \times (4 - 0!)!. \\
&= ((\sqrt{9})!! + 8) \times (7 + 4 \times 4!). \\
&= ((7! - 5) \times 5 - 4!) \times 3. \\
&= (8 + 7) \times 7! - 5! - \sqrt{4}. \\
&= \sqrt{9} \times (-7 + 7!) \times 5 + \sqrt{4}. \\
&= (7! - 5) \times 5 \times 3 - 2. \\
&= \sqrt{9} \times (7! - 5) \times 5 + 4!. \\
&= -(\sqrt{9})! + 7! \times (-5 + 5 \times 4). \\
&= ((\sqrt{9})! + 9) \times 7! - (-5 + 5)!. \\
&= 8! + 7 \times (7! - 6) + 5!. \\
&= \sqrt{9} \times (7! \times 5 + 5! - \sqrt{4}). \\
&= \sqrt{9} \times (7! \times 5 + 5!) - 5. \\
&= ((\sqrt{9})! - 87) \times 5! + 4!. \\
&= (77 - 6!) \times (-5! + 1). \\
&= ((\sqrt{9})!! - 77) \times 5! - 1. \\
&= (-\sqrt{9} + 8)^7 + 4! \times 1. \\
&= 8! - 7 \times 6 \times 4! \times 2. \\
&= (-\sqrt{9} + 8! - 7 \times 5!) \times \sqrt{4}. \\
&= (-(\sqrt{9})!! + 8! + 7 \times 2) \times 2. \\
&= (-(\sqrt{9})!! + 8 \times 7! + 4!) \times 2. \\
&= ((\sqrt{9})!! - 8 \times 7) \times (6 - 0!)!. \\
&= -(\sqrt{9})!! + 8! + 8! - 7 \times 5. \\
&= -(\sqrt{9})!! + 9! - (\sqrt{9} + 8!) \times 7. \\
&= -(\sqrt{9})!! - (\sqrt{9})! + (8! + 7) \times 2. \\
&= 9 - (\sqrt{9})!! \times (9 - (7 - 2)!!). \\
&= (9! / 9 + 7) \times \sqrt{4} - 3!!. \\
&= -(\sqrt{9})!! + (9 + 8!) \times \sqrt{7 - 3}. \\
&= -(\sqrt{9})!! + ((\sqrt{9})! + 7! \times 4) \times 4. \\
&= 9! + (9 - 8!) \times 7 - 3!!. \\
&= (8! - (4 + 0!)!) \times (0! + 0!). \\
&= 8 \times (7! \times \sqrt{4} - 4!) - 0!. \\
&= (8! - 7 \times 5) \times (0! + 0!). \\
&= 8! + 8! - 55 \times 0!. \\
&= (8! + 6 - 4!) \times (0! + 0!). \\
&= (0! + 1)! \times (-6 - 6 + 8!) \\
&= 80619 := (0! + 1)! \times (-6 + 8!) - 9 \\
&= 80627 := -0! - 2 \times (6 - 7! \times 8) \\
&= 80651 := -0! + \sqrt{-1 + 5} \times (6 + 8!) \\
&= 80653 := 0! + (-3 + 5) \times (6 + 8!) \\
&= 80658 := (-0! + 5!) - 6 + 8! + 8! \\
&= 80687 := -0! + (6 + 7!) \times 8 + 8! \\
&= 80704 := (0! + 0!) \times (4 + 7!) \times 8 \\
&= 80723 := -0! + 2 \times (3! \times 7 + 8!) \\
&= 80736 := (-0! + 3) \times (6 + 7!) \times 8 \\
&= 80759 := -0! + 5! - 7 \times 8! + 9! \\
&= 80856 := \sqrt{(0! + 5)^6} + 8! + 8! \\
&= 81347 := 1 + 3!! + \sqrt{4} \times (-7 + 8!) \\
&= 81349 := 1 + 3!! + \sqrt{4} \times (8! - (\sqrt{9})!) \\
&= 81374 := 1 \times 3!! + \sqrt{4} \times (7 + 8!) \\
&= 81966 := (-1 + 6!) \times (-6 + (8 - \sqrt{9})!) \\
&= 82067 := 0! + 2 \times (6! - 7 + 8!) \\
&= 82069 := 0! + 2 \times (-6 + 8! + (\sqrt{9})!!) \\
&= 82079 := -0! + 2 \times (7! \times 8 + (\sqrt{9})!!) \\
&= 82080 := (0! + 0!) \times ((-2 + 8!) + 8!) \\
&= 82093 := 0! + 2 \times (3! + 8! + (\sqrt{9})!!) \\
&= 82099 := 0! + 2 \times (8! + 9 + (\sqrt{9})!!) \\
&= 82528 := 2 \times ((-2 + 5!) \times 8 + 8!) \\
&= 82592 := (2 \times 2 - 5!) \times (8 - (\sqrt{9})!!) \\
&= 82594 := 2 + (4 - 5!) \times (8 - (\sqrt{9})!!) \\
&= 82946 := 2 + \sqrt{4! \sqrt{\sqrt{6^8}}} \times (\sqrt{9})! \\
&= 83584 := 3!! \times (-4 + 5!) + 8 \times 8 \\
&= 83664 := 3!! + 4 \times \sqrt{(6 + 6)^8} \\
&= 84576 := -4! + 5! \times (6! - 7 - 8) \\
&= 84956 := -4 + (5! + 6 - 8) \times (\sqrt{9})!! \\
&= 84958 := -\sqrt{4} + (5! - \sqrt{\sqrt{8 + 8}}) \times (\sqrt{9})!! = (\sqrt{9})!! \times (-\sqrt{\sqrt{8 + 8} + 5!}) - \sqrt{4}. \\
&= 85416 := -1 \times 4! + 5! \times (6! - 8) \\
&= 85436 := (-3! + (\sqrt{4} + (5! \times (6! - 8)))) \\
&= 85439 := 3 - 4 + 5! \times (-8 + (\sqrt{9})!!) \\
&= 85440 := (0! + 4!) \times ((\sqrt{4 + 5})!! - 8) \\
&= 85446 := 4! / 4 + 5! \times (6! - 8) \\
&= 85459 := 4! - 5 - 5! \times (8 - (\sqrt{9})!!) \\
&= 85462 := -2 + 4! + 5! \times (6! - 8) \\
&= 85464 := 4! + 4! \times 5 \times (6! - 8) \\
&= 85680 := (-0! + 5!) \times (6 - 8 + 8!) \\
&= 85681 := (-1 + 5!) \times 6! + (-8 + 8)! \\
&= 85691 := (-1 + 5!) \times 6! + 8 + \sqrt{9} \\
&= 85697 := (-5 + 6 + 7!) \times (8 + 9) \\
&= 85736 := 3!! \times 5! - 6! + 7 \times 8 \\
&= 85904 := (-\sqrt{04} + 5!) \times (8 + (\sqrt{9})!!) \\
&= 85918 := (-1 + 5!) \times (\sqrt{\sqrt{8 + 8}} + (\sqrt{9})!!) = ((\sqrt{9})!! + \sqrt{\sqrt{8 + 8}}) \times (5! - 1). \\
&= 85934 := (3!! - 4) \times 5! + 8 + (\sqrt{9})! \\
&= 86039 := -0! + (-3 + 6!) \times (8 - \sqrt{9})! \\
&= 86159 := -1 + 5! \times (6 - 8 + (\sqrt{9})!!) = ((\sqrt{9})!! - 8 + 6) \times 5! - 1.
\end{aligned}$$

$$\begin{aligned}
86400 &:= (0! + 0!) \times (4 \times 6! + 8!) \\
86405 &:= 0! - 4 + 5! \times 6! + 8 \\
86408 &:= (0! + 4)! \times 6! + \sqrt{8 \times 8} \\
86409 &:= (0! + 4)! \times (\sqrt{\sqrt{6^8}}) + 9 \\
86415 &:= -1 + 4! + 5! \times 6! - 8 \\
86435 &:= 3 + 4! + 5! \times 6! + 8 \\
86440 &:= (0! + 4) \times (4! \times 6! + 8) \\
86519 &:= -1 + 5! \times (6! - 8 + 9) \\
86640 &:= (0! + 4)! \times (6! - 6 + 8) \\
86856 &:= -5! + 6^6 + (\sqrt{8 \times 8})! \\
86967 &:= 6^6 + 7! \times 8 - 9 \\
86973 &:= 3!^6 + 7! \times 8 - \sqrt{9} \\
87357 &:= -3 + 5! \times (7!/7 + 8) \\
87699 &:= (6! - 7) \times ((8 - \sqrt{9})! + \sqrt{9}) \\
88560 &:= \sqrt{0! + 5!} \times 6! + 8! + 8! \\
88824 &:= 2 \times (-4 + 8! + \sqrt{8^8}) \\
88829 &:= 2 \times (\sqrt{8^8} + 8!) - \sqrt{9} \\
88848 &:= \sqrt{4} \times (8 + 8! + \sqrt{8^8}) \\
89976 &:= (6 \times 7! - 8) \times \sqrt{9} - (\sqrt{9})!! \\
90647 &:= -0! + (-4! + 6 \times 7!) \times \sqrt{9} \\
90677 &:= -0! - 6 \times (7 - 7! \times \sqrt{9}) \\
90708 &:= (-(\sqrt{9})! + 8! + 7!) \times (0! + 0!)! \\
90712 &:= 0! + (-1 + 2 \times 7!) \times 9 \\
90713 &:= -0! + (-1 + 3 \times 7!) \times (\sqrt{9})! \\
90716 &:= -0! + (-1 + 6 \times 7!) \times \sqrt{9} \\
90719 &:= 0 - 1 + 7! \times (9 + 9) \\
90739 &:= 0! + (3 \times 7! + \sqrt{9}) \times (\sqrt{9})! \\
90743 &:= -0! + 3! \times (4 + 7! \times \sqrt{9}) \\
90756 &:= (0! + 5) \times (6 + 7! \times \sqrt{9}) \\
90773 &:= -0! + (3! + 7! + 7!) \times 9 \\
90867 &:= (0! + 6 \times (7! + 8)) \times \sqrt{9} \\
91125 &:= ((11 - 2) \times 5)^{\sqrt{9}} \\
92158 &:= -1 \times 2 + (5! + 8) \times (\sqrt{9})!! \\
92159 &:= -1 + \sqrt{2^{5+9}} \times (\sqrt{9})!! \\
92160 &:= (0! + 1) \times 2^6 \times (\sqrt{9})!! \\
92880 &:= (0! + 2 \times 8 \times 8) \times (\sqrt{9})!! \\
92928 &:= \sqrt{\sqrt{2^{28}}} \times ((\sqrt{9})! + (\sqrt{9})!!) \\
93072 &:= -(0! + 2)!! + 3!^7 / \sqrt{9} \\
93073 &:= 0! + (-3! + 3!^7) / \sqrt{9} \\
93292 &:= -2 + 2 \times (3!(\sqrt{9})! - 9) \\
93300 &:= (0! + 0!) \times (3!^3! - (\sqrt{9})!) \\
93307 &:= 0! - 3! + 3!^7 / \sqrt{9} \\
93317 &:= -1 + 3! + 3!^7 / \sqrt{9}
\end{aligned}
\begin{aligned}
&= (8! + 6! \times 4) \times (0! + 0!). \\
&= 8 + 6! \times 5! - 4 + 0!. \\
&= \sqrt{8 \times 8} + 6! \times (4 + 0!). \\
&= 9!/8! + 6! \times (4 + 0!). \\
&= -8 + 6! \times 5! + 4! - 1. \\
&= -8 + 6! \times 5! + 43. \\
&= (8 + 6! \times 4!) \times (4 + 0!). \\
&= (9 - 8 + 6!) \times 5! - 1. \\
&= (8 - 6 + 6!) \times (4 + 0!). \\
&= (\sqrt{8 \times 8})! + 6^6 - 5!. \\
&= -9 + 8 \times 7! + 6^6. \\
&= -\sqrt{9} + 8 \times 7! + 6^3!. \\
&= (8 + 7!/7) \times 5! - 3. \\
&= (\sqrt{9} + (-\sqrt{9} + 8)!) \times (-7 + 6!). \\
&= 8! + 8! + 6! \times \sqrt{5! + 0!}. \\
&= -8 + (8! + 8^4) \times 2. \\
&= -\sqrt{9} + (\sqrt{8^8} + 8!) \times 2. \\
&= (8 + 8! + \sqrt{8^8}) \times \sqrt{4}. \\
&= -(\sqrt{9})!! + \sqrt{9} \times (-8 + 7! \times 6). \\
&= \sqrt{9} \times (7! \times 6 - 4!) - 0!. \\
&= (\sqrt{9} \times 7! - 7) \times 6 - 0!. \\
&= (0! + 0!) \times (7! + 8! - (\sqrt{9})!). \\
&= 9 \times (7! \times 2 - 1) + 0!. \\
&= (\sqrt{9})! \times (7! \times 3 - 1) - 0!. \\
&= \sqrt{9} \times (7! \times 6 - 1) - 0!. \\
&= (9 + 9) \times 7! - 1 \times 0!. \\
&= (\sqrt{9})! \times (\sqrt{9} + 7! \times 3) + 0!. \\
&= (\sqrt{9} \times 7! + 4) \times 3! - 0!. \\
&= (\sqrt{9} \times 7! + 6) \times (5 + 0!). \\
&= 9 \times (7! + 7! + 3!) - 0!. \\
&= \sqrt{9} \times ((8 + 7!) \times 6 + 0!). \\
&= (9 \times 5)^{2+1} \times 1. \\
&= (\sqrt{9})!! \times (8 + 5!) - 2 \times 1. \\
&= (\sqrt{9})!! \times ((\sqrt{9})! + 5! + 2) - 1. \\
&= 96^2 \times 10. \\
&= (\sqrt{9})!! \times (8 \times 8 \times 2 + 0!). \\
&= ((\sqrt{9})! + (\sqrt{9})!!) \times 8^2 \times 2. \\
&= ((\sqrt{9})!^7 - 3!!)/(2 + 0!). \\
&= ((\sqrt{9})!^7 - 3!!)/3 + 0!. \\
&= (-9 + (\sqrt{9})!^3!) \times 2! - 2. \\
&= (-(\sqrt{9})! + 3!^3!) \times (0! + 0!). \\
&= (\sqrt{9})!^7/3 - 3! + 0!. \\
&= (\sqrt{9})!^7/3 + 3! - 1.
\end{aligned}
\begin{aligned}
93320 &:= -0! + 2 \times 3!^3! + 9 \\
93330 &:= (-0! + 3) \times (3!^3! + 9) \\
93384 &:= 3!^3! \times \sqrt{4} + 8 \times 9 \\
93392 &:= 2 \times 3!^3! + (\sqrt{9})!!/9 \\
93525 &:= ((2 \times 3)! + 5) \times (5! + 9) \\
93534 &:= (-3! + 3!!) \times (\sqrt{4} + 5! + 9) \\
93744 &:= (3!! + 4!) \times \sqrt{4} \times 7 \times 9 \\
93756 &:= (-3! + 5^6 + 7) \times (\sqrt{9})! \\
93837 &:= (-3^3! + 7 \times 8!) / \sqrt{9} \\
93957 &:= -3 + 5! \times (7 \times 9 + (\sqrt{9})!!) \\
94033 &:= 0! + 3!^3! \times \sqrt{4} + (\sqrt{9})!! \\
94078 &:= -\sqrt{04} + 7 \times 8! / \sqrt{9} \\
94087 &:= -0! + (4! + 7 \times 8!) / \sqrt{9} \\
94656 &:= -4! + 5! \times (6! + 69) \\
94766 &:= \sqrt{4} \times (6^6 + 7 + (\sqrt{9})!!) \\
94798 &:= -\sqrt{4} + 7 \times 8! / \sqrt{9} + (\sqrt{9})!! \\
94974 &:= (\sqrt{4} - 4!) \times (-7! + \sqrt{9} + (\sqrt{9})!!) = ((\sqrt{9})!! + \sqrt{9} - 7!) \times (\sqrt{4} - 4!). \\
95037 &:= (\sqrt{03!!/5})! / 7! - \sqrt{9} \\
95039 &:= -0! + (3 + 5! + 9) \times (\sqrt{9})!! \\
95436 &:= (3 \times 4 + 5!) \times (6! + \sqrt{9}) \\
95565 &:= (5! - 5) \times (5! + 6! - 9) \\
95703 &:= \sqrt{0! + 3 \times 5!} \times (7! - \sqrt{9}) \\
95704 &:= 0! + (4! - 5) \times (7! - \sqrt{9}) \\
95747 &:= (4! - 5) \times 7! - 7 - (\sqrt{9})! \\
95751 &:= ((-1 + 5!) - 5) \times 7! - 9 \\
95754 &:= (4! - \sqrt{5} \times 5) \times 7! - (\sqrt{9})! \\
95785 &:= 5 \times (5 - 7!) + 8! \times \sqrt{9} \\
95874 &:= (4! - 5) \times ((\sqrt{\sqrt{\sqrt{7^8}}})! + (\sqrt{9})!) = ((\sqrt{\sqrt{\sqrt{7^8}}})! + 7!) \times (-5 + 4!). \\
95995 &:= -5 + 5!^{\sqrt{9}} / (9 + 9) \\
96384 &:= -3! \times (4^6 + 8!) + 9! \\
96480 &:= ((0! + 4)! + 6 + 8) \times (\sqrt{9})!! \\
97336 &:= (3 + 36 + 7)^{\sqrt{9}} \\
97784 &:= (4! - 7) \times (7! - 8 + (\sqrt{9})!!) \\
97835 &:= (3!! - 5 + 7!) \times (8 + 9) \\
98295 &:= 2^{5!/8} \times \sqrt{9} - 9 \\
98448 &:= (\sqrt{4 \times 4})! \times (\sqrt{8^8} + (\sqrt{9})!) \\
98459 &:= 4 + 5 \times (8 + \sqrt{9^9}) \\
98478 &:= 4! \times (7 + \sqrt{8^8}) + (\sqrt{9})! \\
98496 &:= 4! \times (-\sqrt{\sqrt{6^8}} + (\sqrt{9})!) \times (\sqrt{9})! = ((\sqrt{9})!! - \sqrt{\sqrt{(\sqrt{9})!^8}}) \times 6 \times 4!. \\
98640 &:= (0! + \sqrt{4} \times 68) \times (\sqrt{9})!! \\
99135 &:= 1 \times 3!! + 5 \times \sqrt{9^9} \\
99360 &:= (-0! + 3) \times 69 \times (\sqrt{9})!!
\end{aligned}
\begin{aligned}
&= 9 + 3!^3! \times 2 - 0!. \\
&= (9 + 3!^3!) \times (3 - 0!). \\
&= 9 \times 8 + \sqrt{4} \times 3!^3!. \\
&= (\sqrt{9})!!/9 + 3!^3! \times 2. \\
&= (9 + 5!) \times (5 + (3 \times 2)!!). \\
&= (9 + 5! + \sqrt{4}) \times (3!! - 3!). \\
&= 9! \times (7!/4! - 4!)/3!. \\
&= (\sqrt{9})! \times (7 - 6 + 5^3!). \\
&= (-9 + 8! \times 7 - 3!!)/3. \\
&= ((\sqrt{9})!! + 9 \times 7) \times 5! - 3. \\
&= (\sqrt{9})!! + \sqrt{4} \times 3!^3! + 0!. \\
&= (-(\sqrt{9})! + 8! \times 7)/(4 - 0!). \\
&= (\sqrt{9} + 8!) \times 7/(4 - 0!). \\
&= (96 + 6!) \times (5! - 4). \\
&= ((\sqrt{9})!! + 7 + 6^6) \times \sqrt{4}. \\
&= 988 \times 4 \times 4!. \\
&= 9974 := (\sqrt{4} - 4!) \times (-7! + \sqrt{9} + (\sqrt{9})!!) = ((\sqrt{9})!! + \sqrt{9} - 7!) \times (\sqrt{4} - 4!). \\
&= -\sqrt{9} + (7 + 5)/(3! + 0!). \\
&= (\sqrt{9})!! \times (9 + 5! + 3) - 0!. \\
&= (\sqrt{9} + 6!) \times (5! + 4 \times 3). \\
&= (-9 + 6! + 5!) \times (-5 + 5!). \\
&= (\sqrt{9} - 7!) \times (5 - (3 + 0!)!). \\
&= (-\sqrt{9} + 7!) \times (-5 + 4!) + 0!. \\
&= -(\sqrt{9})! - 7 + 7! \times (-5 + 4!). \\
&= -9 + 7! \times (-5 + (5 - 1)!). \\
&= -(\sqrt{9})! + 7! \times (-\sqrt{5 \times 5 + 4}). \\
&= \sqrt{9} \times 8! - (7! - 5) \times 5. \\
&= (\sqrt{\sqrt{\sqrt{7^8}}})! + 7!) \times (-5 + 4!). \\
&= ((\sqrt{9})!! + (\sqrt{9})!!/9) \times 5! - 5. \\
&= \sqrt{9} \times 8! - 6 \times 4^3!. \\
&= (\sqrt{9})!! \times (8 + 6 + (4 + 0!)!). \\
&= (-\sqrt{9} + 7^{6/3})^3. \\
&= (-(\sqrt{9})! + 8 - 7!) \times (7 - 4!). \\
&= (9 + 8) \times (7! - 5 + 3!!). \\
&= -\sqrt{9} + \sqrt{9} \times (8^5 - 2). \\
&= ((\sqrt{9})! + 8^{8-4}) \times 4!. \\
&= (\sqrt{9^9} + 8) \times 5 + 4. \\
&= (\sqrt{9})! + (\sqrt{8^8} + 7) \times 4!. \\
&= ((\sqrt{9})!! - \sqrt{\sqrt{(\sqrt{9})!^8}}) \times 6 \times 4!. \\
&= (\sqrt{9})!! \times (-8 + 6 \times 4! + 0!). \\
&= \sqrt{9^9} \times 5 + 3!! \times 1. \\
&= 9!/ \sqrt{9} - 6! \times 30.
\end{aligned}$$

$$79344 := (3!! - 4!) \times ((-\sqrt{4} + 7)! - (\sqrt{9})!) = (-(\sqrt{9})! + (7 - \sqrt{4})!) \times (-4! + 3!!).$$

$$79894 := \sqrt{4} \times (-7 + 8! - (\sqrt{9})!) - (\sqrt{9})!! = -(\sqrt{9})!! + (-(\sqrt{9})! + 8! - 7) \times \sqrt{4}.$$

## 6.1 Selfie Numbers in Increasing Order of Digits

$64 := \sqrt{4^6}$ .	$7911 := 11!/7! - 9$ .	$14386 := \sqrt{(-1 + 3!)!^4} - 6 - 8$ .
$121 := 11^2$ .	$8397 := -3 - 7! + 8!/\sqrt{9}$ .	$14389 := \sqrt{(-1 + 3!)!^4} - 8 - \sqrt{9}$ .
$127 := -1 + 2^7$ .	$8974 := \sqrt{4} \times (7 + 8!/9)$ .	$14402 := \sqrt{(-0! + (1 + 2!)!^4} + \sqrt{4}$ .
$719 := -1^7 + (\sqrt{9})!!$ .	$8984 := 4! + (8! + 8!)!/9$ .	$14403 := -0! + \sqrt{(-1 + 3!)!^4} + 4$ .
$736 := 3^6 + 7$ .	$9375 := 3 \times \sqrt{5^7 + \sqrt{9}}$ .	$14404 := \sqrt{(01 + 4)!^4} + 4$ .
$864 := 4! \times \sqrt{\sqrt{6^8}}$ .	$9599 := (5! \times (\sqrt{9})!! - 9)/9$ .	$14406 := (0! + (-1 + 4!)!^4 \times 6$ .
$1288 := \sqrt{(1 + 2)!^8} - 8$ .	$9865 := 5^6 - 8 \times (\sqrt{9})!!$ .	$14411 := 11 + \sqrt{(1 + 4)!^4}$ .
$1331 := \sqrt{11^{3+3}}$ .	$10076 := (0! + 0!)! \times (-\sqrt{\sqrt{16}} + 7!)$ .	$14464 := \sqrt{(1 + 4)!^4} + \sqrt{4^6}$ .
$1534 := -13 \times (\sqrt{4} - 5!)$ .	$10078 := (0! + 0!)! \times (-1 + (\sqrt{\sqrt{7^8}}))!$ .	$14499 := \sqrt{(1 + 4)!^4} + 99$ .
$1679 := -1^6 + 7!/ \sqrt{9}$ .	$10362 := (-0! + 12^3) \times 6$ .	$14516 := 11^4 - \sqrt{5^6}$ .
$2047 := -0! + 2^{4+7}$ .	$10384 := (0! + 1 + 3!)^4 \times 8$ .	$14521 := (-1 + 12)^4 - 5!$ .
$2049 := 0! + 2^{\sqrt{4+9}}$ .	$10648 := \sqrt{(0! + 1 - 4!) \sqrt{\sqrt{\sqrt{6^8}}}}$ .	$14641 := (1 + (1 + 4)!)^{-4+6}$ .
$2187 := (1 + 2)^{\sqrt{\sqrt{7^8}}}$ .	$11264 := 11 \times 2^{4+6}$ .	$14644 := \sqrt{((1 + 4)! - \sqrt{4})^4 + 6!}$ .
$2196 := (12 + 6!) \times \sqrt{9}$ .	$11349 := (1 + (1 + 3!)!/4) \times 9$ .	$14664 := (1 + 4)! + \sqrt{4^6} + 6!$ .
$2378 := -23 + \sqrt{7^8}$ .	$11528 := (1 + 12 \times 5!) \times 8$ .	$14689 := 1 + 4! \times 68 \times 9$ .
$2401 := (0! + (1 + 2)!)^4$ .	$11880 := (0! + 11)! / (\sqrt{8 \times 8})!$ .	$14737 := 1 - 3 \times (\sqrt{4^7} - 7!)$ .
$2753 := 23 \times 5! - 7$ .	$11881 := ((1 + 11)! + 8!)!/8!$ .	$14749 := (-1 + 44) \times 7^{\sqrt{9}}$ .
$2944 := \sqrt{\sqrt{2^4!}} + 4 \times (\sqrt{9})!!$ .	$11882 := 1 + (12! + 8!)!/8!$ .	$14884 := \sqrt{((1 + 4)! + \sqrt{4})^{\sqrt{8+8}}}$ .
$3453 := -3 + 3!! \times 4!/5$ .	$11943 := (11^3 - 4) \times 9$ .	$14906 := 0! + (1 + 4)^6 - (\sqrt{9})!!$ .
$3564 := -\sqrt{3!^4} + 5 \times 6!$ .	$12166 := -1 + \sqrt{(1 - (-2 + 6)!)^6}$ .	$14927 := -1 + (-\sqrt{\sqrt{2^4!}} + 7!) \times \sqrt{9}$ .
$3565 := -35 + 5 \times 6!$ .	$12951 := (-1 + 12 \times 5!) \times 9$ .	$15125 := 11^2 \times (5 + 5!)$ .
$3585 := 3!! \times 5 - 5!/8$ .	$13398 := -(1 + 3!) \times 3! + 8!/\sqrt{9}$ .	$15265 := -(1 + 2) \times 5! + 5^6$ .
$3742 := -2 - 3!^4 + 7!$ .	$13452 := (-12 + 3!) \times (4! - 5)$ .	$15361 := \sqrt{11^{3+5}} + 6!$ .
$3891 := (1 + \sqrt{3!^8}) \times \sqrt{9}$ .	$13489 := \sqrt{(1 + 3!)^4 + 8!/\sqrt{9}}$ .	$15432 := 12 \times 3!^4 - 5!$ .
$3993 := 33^{\sqrt{9}}/9$ .	$13537 := 1 + 3!! + 3!^5 + 7!$ .	$15496 := -(1 + 4)! + 5^6 - 9$ .
$4090 := \sqrt{(0! + 0!)^4!} - (\sqrt{9})!$ .	$13577 := (-1 + (\sqrt{3!!/5})!/7!)/7$ .	$15499 := -(1 + 4)! + 5^{(\sqrt{9})!} - (\sqrt{9})!$ .
$4092 := -0! + \sqrt{2^4!} - \sqrt{9}$ .	$13687 := 1 - 3!! + 6 \times \sqrt{7^8}$ .	$15592 := -1 - 2^5 + 5^{(\sqrt{9})!}$ .
$4096 := 04^{(-6+9)!}$ .	$13768 := \sqrt{(1 + 3!)^6 - 7 \times 8}$ .	$15593 := (1 - 3)^5 + 5^{(\sqrt{9})!}$ .
$4099 := 04^{(\sqrt{9})!} + \sqrt{9}$ .	$13816 := 1 \times \sqrt{(1 + 3!)^6} - 8$ .	$15594 := 1 - \sqrt{4^5} + 5^{(\sqrt{9})!}$ .
$4215 := -1 + \sqrt{2^4!} + 5!$ .	$13825 := 1 + (-2 + 3!)!^{-5+8}$ .	$15612 := -11 - 2 + 5^6$ .
$4336 := 3!!/3 + 4^6$ .	$13831 := -1 + (1 + 3!)^3 + 8$ .	$15613 := 1 - 13 + 5^6$ .
$4536 := 3^4 \times 56$ .	$13833 := (1 + 3!)^3 + \sqrt{\sqrt{3^8}}$ .	$15614 := -\sqrt{\sqrt{11^4}} + 5^6$ .
$4598 := -\sqrt{4} + 5! + 8!/9$ .	$13873 := (1 + 3!)^3 + \sqrt{\sqrt{7^8}}$ .	$15615 := -(1 + 1)! \times 5 + 5^6$ .
$4609 := 0! + \sqrt{4!^6/9}$ .	$13896 := \sqrt{(1 + 3!)^6 + 8 \times 9}$ .	$15617 := -(-1 + 1)! + 5^6 - 7$ .
$4896 := 4! \times 68 \times \sqrt{9}$ .	$13921 := \sqrt{11^{23}} - (\sqrt{9})!!$ .	$15618 := (-1 + 1)! + 5^6 - 8$ .
$4913 := (13 + 4)^{\sqrt{9}}$ .	$13935 := (1 + 3!)^3 + 5! - 9$ .	$15619 := (1 - 1 + 5)^6 - (\sqrt{9})!$ .
$5072 := 02^5 + 7!$ .	$13943 := -1 + 3!!/3! + 4!^{\sqrt{9}}$ .	$15621 := -1 - 1 - 2 + 5^6$ .
$5376 := 3! \times 56 + 7!$ .	$13953 := (1 + 3!)^3 + 5! + 9$ .	$15622 := -1 - 2 + \sqrt{25^6}$ .
$5782 := (-2 + 5!) \times \sqrt{\sqrt{7^8}}$ .	$13959 := (13 \times 5! - 9) \times 9$ .	$15623 := -(12/3!)! + 5^6$ .
$5792 := 2^5 + 7! + (\sqrt{9})!!$ .	$14256 := (1 + 2)!^4 \times (5 + 6)$ .	$15628 := 1 + 2 + 5^{\sqrt{\sqrt{6^8}}}$ .
$6145 := 1 + 4^5 \times 6$ .	$14359 := -1 + (3!! - \sqrt{4}) \times 5! / (\sqrt{9})!$ .	$15629 := 1 + \sqrt{25^6} + \sqrt{9}$ .
$6435 := \sqrt{3^4} \times (-5 + 6!)$ .	$14365 := -(1 + 3!)!/4 + 5^6$ .	$15634 := 13 - 4 + 5^6$ .
$6473 := \sqrt{3^4} \times 6! - 7$ .	$14379 := \sqrt{(-1 + 3!)!^4} - 7 \times \sqrt{9}$ .	$15640 := 0! + 14 + 5^6$ .
$6655 := 5 \times \sqrt{(5 + 6)^6}$ .	$14384 := \sqrt{(-1 + 3!)!^4} - \sqrt{\sqrt{4^8}}$ .	$15642 := 1 + 2^4 + 5^6$ .
$6859 := (5 + 6 + 8)^{\sqrt{9}}$ .		$15643 := -1 \times 3! + 4! + 5^6$ .
		$15644 := -1 - 4 + 4! + 5^6$ .
		$15645 := 1 \times 4 \times 5 + 5^6$ .

$$\begin{aligned}
15648 &:= -1 + 4! + 5\sqrt{\sqrt{6^8}}. \\
15649 &:= 1 \times 4! + 5^{(-6+9)!}. \\
15650 &:= 0! + (-1 + 5)! + 5^6. \\
15654 &:= 1 \times 4! + 5 + 5^6. \\
15667 &:= 1 \times 5^6 + 6 \times 7. \\
15688 &:= -1 + 5^6 + 8 \times 8. \\
15698 &:= 1 + 5^6 + 8 \times 9. \\
15745 &:= (1 + 4)! + \sqrt{5^{5+7}}. \\
15765 &:= 15 \times (-5 + 6!) + 7!. \\
15936 &:= (1 + 3)! \times (-56 + (\sqrt{9}!!)). \\
15967 &:= -1 + 5^6 + 7^{\sqrt{9}}. \\
16339 &:= (-1 + 3!)^{3!} - 6 + (\sqrt{9}!!). \\
16343 &:= (-1 + 3!)^{3!} - \sqrt{4} + 6!. \\
16344 &:= (1 + 3!)!/\sqrt{4} + \sqrt{4!^6}. \\
16346 &:= 1 + (3 + \sqrt{4})^6 + 6!. \\
16353 &:= -1 + 3^{3!} + 5^6. \\
16377 &:= (1 - 3 + 6)^7 - 7. \\
16383 &:= -1 + (3!/3)^{6+8}. \\
16385 &:= 1 + (-3 + 5)^{6+8}. \\
16465 &:= (1 + 4)! + 5^6 + 6!. \\
16799 &:= -1 + 6! \times 7! / (\sqrt{9})!^{\sqrt{9}}. \\
16839 &:= 13 \times \sqrt{6^8} - 9. \\
16896 &:= (-16 + 6!) \times 8 \times \sqrt{9}. \\
16937 &:= (1 + 3)! \times 6! - 7^{\sqrt{9}}. \\
17104 &:= (0! + 1 + 1)!! + 4^7. \\
17159 &:= -1 + (1 + 5 + 7)! / 9!. \\
17488 &:= (-1 + 4)^7 \times 8 - 8. \\
17856 &:= (-1 + 5^6) / 7 \times 8. \\
17948 &:= 1 \times 4 \times (7 + 8!/9). \\
18025 &:= (0! + (1 + 2)!!) \times \sqrt{\sqrt{5^8}}. \\
18479 &:= -1^4 + 7! + 8! / \sqrt{9}. \\
18726 &:= (1 + 2)! \times (6! + \sqrt{7^8}). \\
18864 &:= 1 \times \sqrt{4!^6} + 8!/8. \\
19279 &:= 1 - 27 \times ((\sqrt{9})! - (\sqrt{9})!!). \\
19332 &:= (-12 + 3 \times 3!!) \times 9. \\
19549 &:= -14 - 5! + \sqrt{9^9}. \\
19737 &:= (-1 + 3^7 + 7) \times 9. \\
19965 &:= \sqrt{\sqrt{(1 + 5!)^6}} \times ((\sqrt{9})! + 9). \\
19992 &:= (-1 + 29) \times (-(\sqrt{9})! + (\sqrt{9})!!). \\
20147 &:= -0! - 12 + 4 \times 7!. \\
20485 &:= (0! + \sqrt{2^{4!}}) \times \sqrt{\sqrt{\sqrt{5^8}}}. \\
21953 &:= 1 + (23 + 5)^{\sqrt{9}}. \\
22264 &:= 22^2 \times 46. \\
22398 &:= -2 + (2 + 3) \times 8!/9. \\
22594 &:= 22 \times (4^5 + \sqrt{9}). \\
23335 &:= -2 + 3 \times (3 + 3!)^5. \\
23352 &:= (2 \times 2)! + 3 \times 3!^5. \\
23472 &:= 22 \times 3!^4 - 7!. \\
23546 &:= 23 \times 4^5 - 6. \\
23549 &:= 23 \times 4^5 - \sqrt{9}. \\
23595 &:= (-2 + 35) \times (-5 + (\sqrt{9})!!). \\
23669 &:= \sqrt{(23 + 6)^6} - (\sqrt{9})!!. \\
24195 &:= (1 + (2 \times 4)!/5) \times \sqrt{9}. \\
24332 &:= 2 \times 23^3 - \sqrt{4}. \\
24346 &:= 2 + 34 \times (-4 + 6!). \\
24365 &:= -(-2 + 3!)! + \sqrt{(4! + 5)^6}. \\
24390 &:= 0! + (2 + 3 + 4!)^{\sqrt{9}}. \\
24456 &:= (\sqrt{2^{4!}} - 4 \times 5) \times 6. \\
24568 &:= 2^{\sqrt{4!+5!}} \times 6 - 8. \\
24576 &:= \sqrt{2^{4!}} \times (5 - 6 + 7). \\
24584 &:= 24 \times 4^5 + 8. \\
24605 &:= -0! + (\sqrt{2^{4!}} + 5) \times 6. \\
24606 &:= (-0! + \sqrt{2^{4!}} + 6) \times 6. \\
24612 &:= (1 + 2)! \times (\sqrt{2^{4!}} + 6). \\
24695 &:= (2 \times 4)! - 5^{(-6+9)!}. \\
24696 &:= \sqrt{(2 \times 4 + 6)^6} \times 9. \\
25177 &:= 12 + 5 \times (-7 + 7!). \\
25188 &:= -12 + 5 \times 8!/8. \\
25199 &:= -1 + (2^5 + \sqrt{9}) \times (\sqrt{9})!!. \\
25294 &:= -2 + (\sqrt{2^{4!}} + 5!) \times (\sqrt{9})!. \\
25668 &:= (-2 - 5 + 6!) \times \sqrt{\sqrt{6^8}}. \\
25998 &:= -2 + 5 \times (8!/9 + (\sqrt{9})!!). \\
26172 &:= (1 + 2)!^2 \times (6! + 7). \\
26208 &:= (0! + 2)!^2 \times (6! + 8). \\
26448 &:= -2 \times 4! - \sqrt{4!^6} + 8!. \\
26487 &:= -2 - \sqrt{4!^6} - 7 + 8!. \\
26488 &:= -\sqrt{24^6} - 8 + 8!. \\
26489 &:= 2 - \sqrt{4!^6} + 8! - 9. \\
26493 &:= (2^3)! - \sqrt{4!^6} - \sqrt{9}. \\
26638 &:= -2 + 3!! + 6! \times \sqrt{\sqrt{6^8}}. \\
26891 &:= -1 + 2 \times (6 + 8!/9). \\
26924 &:= -2 \times (2 - \sqrt{4!^6}) - (\sqrt{9})!!. \\
26928 &:= 2 \times ((-2 + 6)! + 8!/\sqrt{9}). \\
26994 &:= (24 + 6)^{\sqrt{9}} - (\sqrt{9})!. \\
26995 &:= -2 + (5 \times 6)^{\sqrt{9}} - \sqrt{9}. \\
27409 &:= 0! + (\sqrt{2^{4!}} + 7!) \times \sqrt{9}. \\
27640 &:= -0! + 2 \times \sqrt{4!^6} - 7. \\
27641 &:= 1 \times 2 \times \sqrt{4!^6} - 7. \\
27646 &:= 2 \times (\sqrt{4!^6} + 6 - 7). \\
27647 &:= 2 \times \sqrt{4!^6} - (-7 + 7!). \\
27649 &:= 2 \times \sqrt{4!^6} + 7 - (\sqrt{9})!. \\
27655 &:= 2 \times \sqrt{(5!/5)^6} + 7. \\
27662 &:= 2 \times (\sqrt{(-2 + 6)!^6} + 7). \\
27720 &:= (0! + 2)!!/2 \times 77. \\
27724 &:= 2 \times (-2 + 4^7) - 7!. \\
27734 &:= 2 \times (3 + 4^7) - 7!. \\
27735 &:= 2^{3 \times 5} + 7 - 7!. \\
27746 &:= 2 \times (\sqrt{4!^6} + 7 \times 7). \\
27837 &:= -2 + 3! \times 7! - \sqrt{7^8}. \\
27936 &:= (-2^{3!} \times 6 + 7!) \times (\sqrt{9})!. \\
27949 &:= \sqrt{2^{4!}} \times 7 - \sqrt{9} - (\sqrt{9})!!. \\
28438 &:= -2 - (3 \times 4)!/8! + 8!. \\
28438 &:= -2 - (3 \times 4)!/8! + 8!. \\
28560 &:= -0! + \sqrt{(2 + 5 + 6)^8}. \\
28561 &:= \sqrt{(12 - 5 + 6)^8}. \\
28567 &:= (-2 + 5)! + \sqrt{(6 + 7)^8}. \\
28672 &:= (2 + 2)^6 \times \sqrt{\sqrt{\sqrt{7^8}}}. \\
28674 &:= 2 + 4^6 \times \sqrt{\sqrt{\sqrt{7^8}}}. \\
28764 &:= 2 \times (-4! + 6 \times \sqrt{7^8}). \\
29472 &:= (-2 \times \sqrt{\sqrt{2^{4!}} + 7!}) \times (\sqrt{9})!. \\
29688 &:= (-2 + (-6! + 8!)/8) \times (\sqrt{9})!. \\
29744 &:= -\sqrt{2^{4!}} + 47 \times (\sqrt{9})!!. \\
29789 &:= -2 + (7 + 8 \times \sqrt{9})^{\sqrt{9}}. \\
29791 &:= (1 + 27 + \sqrt{9})^{\sqrt{9}}. \\
29793 &:= 2 + (37 - (\sqrt{9})!)^{\sqrt{9}}. \\
29794 &:= (24 + 7)^{\sqrt{9}} + \sqrt{9}. \\
30365 &:= (0! + 3!)! \times 3! + \sqrt{5^6}. \\
30576 &:= 03! \times (56 + 7!). \\
31756 &:= 1 + 3 \times (5^6 - 7!). \\
31941 &:= 11^3 \times 4! - \sqrt{9}. \\
32254 &:= -2 + (2^3)! \times 4/5. \\
32256 &:= 2^{2^3} \times (5! + 6). \\
32424 &:= (2 \times 2)! + (3!!/4)^{\sqrt{4}}. \\
32537 &:= (2^3)! - 3!^5 - 7. \\
32538 &:= -2 \times 3 - 3!^5 + 8!. \\
32544 &:= (2^3)! - (4!/4)^5. \\
32648 &:= -(2 + 3)! + 4^6 \times 8. \\
32744 &:= 2 \times (-3 \times 4 + 4^7). \\
32759 &:= 2^{3+5+7} - 9. \\
32772 &:= 2 \times (2 + (-3 + 7)^7). \\
32775 &:= 2^{3+5+7} + 7. \\
32864 &:= 2 \times 3! + 4^6 \times 8. \\
33235 &:= 23 \times (3!! + 3!! + 5). \\
33494 &:= 3! + 3!! + \sqrt{4^{4!-9}}. \\
33495 &:= 33 \times (4^5 - 9). \\
33595 &:= (-3! + (3 + 5)!) \times 5 / (\sqrt{9})!. \\
33738 &:= (3! + 3!! \times 3!!) / 7 - 8!. \\
34207 &:= -0! + 2 \times (3!! + 4^7). \\
34432 &:= (-2^{3!} + 3!! \times 4!) \times \sqrt{4}. \\
34445 &:= \sqrt{(3^4 + \sqrt{4})^4} \times 5. \\
34492 &:= 2 \times (-34 + 4! \times (\sqrt{9})!!). \\
34713 &:= (1 + 3!) \times (-3^4 + 7!). \\
34727 &:= (2 - 3^4 + 7!) \times 7. \\
34728 &:= -23 \times 4! - 7! + 8!.
\end{aligned}$$

$$\begin{aligned}
34839 &:= (3! + 3!!) \times 48 - 9. \\
34844 &:= -\sqrt{(3 \times 4! + \sqrt{4})^4} + 8!. \\
34875 &:= -3^4 \times 5 - 7! + 8!. \\
34944 &:= (-3!! \times 4! + 4!)^4 / 9. \\
34983 &:= 3^{3!} \times 48 - 9. \\
35378 &:= (3!! - 3 + 5) \times \sqrt{\sqrt{7^8}}. \\
35476 &:= (3!! + 4) \times (56 - 7). \\
35547 &:= (-3 + \sqrt{(4! + 5!)^5}) / 7. \\
35748 &:= -\sqrt{3!^4} \times (5! + 7) + 8!. \\
35982 &:= 2 \times (3!! \times \sqrt{\sqrt{5^8}} - 9). \\
35999 &:= (\sqrt{(3!! \times 5)^{\sqrt{9}}} - (\sqrt{9})) / (\sqrt{9}). \\
36224 &:= (2 + 2 \times 3)! - 4^6. \\
36248 &:= (-2 + 3!!)! - 4^6 + 8!. \\
36486 &:= (3^4 - 6!) \times 6 + 8!. \\
36927 &:= (2^{3!+6} + 7) \times 9. \\
36960 &:= (0! + 3!!) \times 66/9. \\
37085 &:= -03!! + 5^7 - 8!. \\
37445 &:= (((3!!/4)^{\sqrt{4}}) + (5 + 7!!)). \\
37485 &:= -3^4 \times 5 \times 7 + 8!. \\
37544 &:= (3!! + \sqrt{4}) \times (45 + 7). \\
37582 &:= -2 - 3!^5 + 7! + 8!. \\
37883 &:= -3! \times 3! - \sqrt{7^8} + 8!. \\
37899 &:= 3^7 \times (8 + 9) + (\sqrt{9})!!. \\
37952 &:= 2^{3!} \times (-5! - 7 + (\sqrt{9})!!). \\
37968 &:= (3!! - 6 \times 7) \times 8! / (\sqrt{9})!!. \\
37974 &:= (3!^4 - 7 + 7!!) \times (\sqrt{9})!. \\
38123 &:= -(1 + 2 \times 3!)^3 + 8!. \\
38127 &:= -(1 + 2)! - 3^7 + 8!. \\
38134 &:= 1 - 3^{3+4} + 8!. \\
38137 &:= 1 + 3 - 3^7 + 8!. \\
38304 &:= -03!! - 3!^4 + 8!. \\
38373 &:= 3!!/3 - 3^7 + 8!. \\
38424 &:= (2 + 3 \times 4)^4 + 8. \\
38448 &:= -3!! - 4! \times 48 + 8!. \\
38688 &:= -3 \times 68 \times 8 + 8!. \\
38782 &:= -2 \times (3!! + \sqrt{\sqrt{7^8}}) + 8!. \\
38838 &:= 3! \times (3^8 - 88). \\
38855 &:= -3!! - 5! - \sqrt{5^8} + 8!. \\
38862 &:= -2 \times (3^6 - 8!) - 8!. \\
38895 &:= -3!! + 5!/8 + 8! - (\sqrt{9})!!. \\
39298 &:= (-2 + \sqrt{\sqrt{3!^8}})^{\sqrt{9}} - (\sqrt{9})!. \\
39313 &:= (1 + 33)^3 + 9. \\
39372 &:= 2 \times (3 + 3^7 \times 9). \\
39435 &:= (-3 + 3!!) \times (-4 + 59). \\
39472 &:= (2^3)! - \sqrt{4^7} - (\sqrt{9})!. \\
39474 &:= -3! + (4 + 4)! - 7! / (\sqrt{9})!.
\end{aligned}$$

$$\begin{aligned}
39475 &:= (3! + \sqrt{4})! - 5 - 7! / (\sqrt{9})!. \\
39477 &:= -3 + 47 \times 7! / (\sqrt{9})!. \\
39479 &:= (3! + \sqrt{4})! - (7! + (\sqrt{9})!) / (\sqrt{9})!. \\
39496 &:= -3!! - 4! + (-6! + 9!) / 9. \\
39568 &:= -35 - 6! + 8! + \sqrt{9}. \\
39628 &:= \sqrt{2^{3!} + 6!} + 8! - (\sqrt{9})!!. \\
39679 &:= (-3^6 - 7! + 9!) / 9. \\
39684 &:= 3^4 - 6! + 8! + \sqrt{9}. \\
39688 &:= -3!!/6 + 8! - 8^{\sqrt{9}}. \\
39728 &:= \sqrt{(-2 + 3!)^7} + 8! - (\sqrt{9})!!. \\
39755 &:= (3 + 5)! - 5 - 7! / 9. \\
39759 &:= (3 + 5)! - (7! + 9!) / 9. \\
39793 &:= 33 - (7! - 9!) / 9. \\
39794 &:= 34 + (-7! + 9!) / 9. \\
39795 &:= 35 + (-7! + 9!) / 9. \\
39796 &:= 36 - (7! - 9!) / 9. \\
39797 &:= 37 + (-7! + 9!) / 9. \\
39808 &:= (0 \times 3 + 8)! - 8^{\sqrt{9}}. \\
39928 &:= ((2 + 3!!) \times 8! - 9!) / (\sqrt{9})!!. \\
39945 &:= (3! + \sqrt{4})! - 5^{\sqrt{9}} \times \sqrt{9}. \\
39948 &:= -3!! / \sqrt{4} + 8! - 9 - \sqrt{9}. \\
39974 &:= (3! + \sqrt{4})! - 7^{\sqrt{9}} - \sqrt{9}. \\
39976 &:= \sqrt{3!^6} + (-7! + 9!) / 9. \\
39994 &:= (-3!! \times 4 + 9!) / 9 - (\sqrt{9})!. \\
39997 &:= (-3^7 + 9! - (\sqrt{9})!) / 9. \\
40138 &:= -(0! + 1)! - 3!! / 4 + 8!. \\
40185 &:= -0! - 14 - 5! + 8!. \\
40195 &:= ((0! + 1) \times 4)! - 5^{\sqrt{9}}. \\
40238 &:= 0! - 2 - 3^4 + 8!. \\
40265 &:= 0! + (2 \times 4)! - 56. \\
40268 &:= -(0! + 2)! - 46 + 8!. \\
40273 &:= (02^3)! - 47. \\
40274 &:= 0! + (2 \times 4)! - 47. \\
40352 &:= (\sqrt{02^{3!}})! + \sqrt{4^5}. \\
40359 &:= -0! + (3! + \sqrt{4})! + 5! / \sqrt{9}. \\
40482 &:= (0! + 2)^4 \times \sqrt{4} + 8!. \\
40483 &:= 0! + 3^4 \times \sqrt{4} + 8!. \\
40755 &:= ((-0! + 4)!! - 5) \times 57. \\
40786 &:= -0! + 467 + 8!. \\
40788 &:= (-0! + 4)! \times 78 + 8!. \\
40854 &:= \sqrt{(-0! + 4!)^4} + 5 + 8!. \\
40945 &:= (0! + 4)^4 + (5 + \sqrt{9})!. \\
41345 &:= 1 + (3! + \sqrt{4})! + 4^5. \\
41424 &:= (12^4 - 4!) \times \sqrt{4}. \\
41458 &:= 1 + (4!^4 - 5!) / 8. \\
41466 &:= (-1 + 4) \times \sqrt{4!^6} - 6. \\
41469 &:= (-1^4 + \sqrt{4!^6}) \times \sqrt{9}. \\
41469 &:= (-1 + 4) \times \sqrt{4!^6} - \sqrt{9}.
\end{aligned}$$

$$\begin{aligned}
46992 &:= \sqrt{\sqrt{2^{4!}} \times (6! + \sqrt{9}) + (\sqrt{9})!!}. \\
47039 &:= -0! + (3! + \sqrt{4})! \times 7/(\sqrt{9})!. \\
47286 &:= (2 + 4)^6 + 7!/8. \\
47436 &:= (3!! - 4!/\sqrt{4}) \times 67. \\
47598 &:= -\sqrt{4} + 5 \times (7! + 8!/9). \\
47623 &:= 2^{3!} \times (4! + 6!) + 7. \\
47664 &:= -4! \times 4! + 6! \times 67. \\
47744 &:= -\sqrt{\sqrt{4^{4!}}} + (\sqrt{4} + 7)!/7. \\
47769 &:= -\sqrt{4} - 67 \times (7 - (\sqrt{9})!!). \\
47824 &:= 2 \times (-4! - 4^7 + 8!). \\
47872 &:= 2! \times (-4^7 + 7! \times 8). \\
47963 &:= (3!! - 4) \times 67 - 9. \\
47966 &:= (-4 + 6!) \times 67 - (\sqrt{9})!. \\
48464 &:= \sqrt{4} \times (-4! + 4^6) + 8!. \\
48522 &:= 2 \times (\sqrt{2^{4!}} + 5) + 8!. \\
48528 &:= (2 + 4^5) \times 8 + 8!. \\
48664 &:= -4! + (-4 + 6!) \times 68. \\
48896 &:= 4^6 + 8! + 8!/9. \\
48936 &:= -3! \times 4 + 68 \times (\sqrt{9})!!. \\
49137 &:= (1 - 3! + 4^7) \times \sqrt{9}. \\
49146 &:= (-1 + \sqrt{4} \times 4^6) \times (\sqrt{9})!. \\
49147 &:= -1 - 4 + 4^7 \times \sqrt{9}. \\
49149 &:= (-1 + 4^{\sqrt{49}}) \times \sqrt{9}. \\
49179 &:= (1 \times 4^7 + 9) \times \sqrt{9}. \\
49266 &:= ((2 + 4)! - 6) \times 69. \\
49278 &:= -2 + (4 + 7) \times 8!/9. \\
49611 &:= (-1 + (-1 + 4)!!) \times 69. \\
49656 &:= -4! + 5! \times 6 \times 69. \\
49664 &:= -4 \times 4 + 6! \times 69. \\
49669 &:= -\sqrt{4} + 6! \times 69 - 9. \\
51847 &:= -1 + (4 + 5)!/7 + 8. \\
52822 &:= 22 \times \sqrt{(2 + 5)^8}. \\
53448 &:= (3^{4+4} + 5!) \times 8. \\
53495 &:= 3!! \times (-4! + 5!) - 5^{(\sqrt{9})!}. \\
53557 &:= (3!^5 - 5 - 5!) \times 7. \\
53712 &:= -(1 + 2)!! + 3!^5 \times 7. \\
53713 &:= 1 - 3!! + 3!^5 \times 7. \\
53719 &:= (1 + 3!^5) \times 7 - (\sqrt{9})!!. \\
53725 &:= (2^{3!} \times 5! - 5) \times 7. \\
53733 &:= -3!! + (3 + 3!^5) \times 7. \\
53985 &:= 3 \times (-5 + \sqrt{\sqrt{5^8}} \times (\sqrt{9})!!). \\
54696 &:= -4! + (5 + 6)!/6! - (\sqrt{9})!!. \\
54738 &:= -3! - 4! \times (5! - \sqrt{7^8}). \\
54748 &:= 4 - 4! \times (5! - \sqrt{7^8}). \\
54864 &:= 4!^{\sqrt{4+5}} + 6! + 8!. \\
54869 &:= \sqrt{(4! - 5)^6} \times 8 - \sqrt{9}. \\
54896 &:= 4! + (5 \times 6 + 8)^{\sqrt{9}}. \\
55097 &:= (-0! + 5!) \times (5! + 7^{\sqrt{9}}).
\end{aligned}
\begin{aligned}
55294 &:= -2 + 4 \times (5!/5)^{\sqrt{9}}. \\
55469 &:= 4! + 5 + (5 + 6)!/(\sqrt{9})!!. \\
55488 &:= (-4! + 5! \times 58) \times 8. \\
55936 &:= (3 + 5!) + 5^6 - 9. \\
56177 &:= \sqrt{1 + 5!} \times (67 + 7!). \\
56278 &:= -2 + 5! + 6! \times 78. \\
56997 &:= 5! + 6! \times 79 - \sqrt{9}. \\
57196 &:= (-1 + 5 + 6!) \times 79. \\
57274 &:= (\sqrt{2^{4!}} - 5) \times (7 + 7). \\
57369 &:= (3^{5+6} - 7!)/\sqrt{9}. \\
57498 &:= -4! \times (5 - \sqrt{7^8}) - (\sqrt{9})!. \\
57599 &:= ((5 + 5)!/7 - 9)/9. \\
58344 &:= 3!! + 4! \times \sqrt{(\sqrt{4} + 5)^8}. \\
58795 &:= -5 + 5 \times (-7! + 8!)/\sqrt{9}. \\
58799 &:= (5 \times (-7! + 8!) - \sqrt{9})/\sqrt{9}. \\
58995 &:= (5 \times 5!/8)^{\sqrt{9}} - 9!. \\
59397 &:= -3^5 + (-7! + 9!)/(\sqrt{9})!. \\
59644 &:= 4! + 4 \times (5^6 - (\sqrt{9})!!). \\
59875 &:= 5 \times 5 \times (\sqrt{7^8} - (\sqrt{9})!). \\
59982 &:= (\sqrt{(2 \times 5)^8} - \sqrt{9}) \times (\sqrt{9})!. \\
59985 &:= (-55 + 8!/(\sqrt{9})!) \times 9. \\
59988 &:= -5!/8 + 8! + \sqrt{9^6}. \\
61440 &:= (0! + 14) \times 4^6. \\
62495 &:= -2 + 4 \times 5^6 - \sqrt{9}. \\
62500 &:= (0! + 0!) \times 2 \times 5^6. \\
62524 &:= (2 \times 2)! + 4 \times 5^6. \\
62640 &:= ((0! + 2)^4 + 6) \times 6!. \\
63888 &:= (3! + \sqrt{\sqrt{\sqrt{6^8}}}) \times 88. \\
63991 &:= (-1 + 3!!) \times (6!/9 + 9). \\
64680 &:= -(0! + 4!) + 6! \times 6!/8. \\
64686 &:= -4! - (6! - 6! \times 6!)/8. \\
64826 &:= 2 + 4! + 6! \times 6!/8. \\
64836 &:= \sqrt{3!^4} + 6! \times 6!/8. \\
64864 &:= \sqrt{\sqrt{\sqrt{4^8}}} + 6! \times 6!/8. \\
64866 &:= -4! + (6! + 6! \times 6!)/8. \\
64986 &:= (\sqrt{4} + 6!) \times 6!/8 + (\sqrt{9})!. \\
65422 &:= 2^{2^4} - 5! + 6. \\
65528 &:= 2^{5+5+6} - 8. \\
65998 &:= (5 \times (-6! + 8!) - (\sqrt{9})!)/\sqrt{9}. \\
66234 &:= 23 \times 4 \times 6! - 6. \\
66244 &:= 2 \times (\sqrt{4} + 46 \times 6!). \\
67534 &:= -3! + 4 \times 5^6 + 7!. \\
67564 &:= 4 \times (5^6 + 6) + 7!. \\
68305 &:= (-0! + 3!!) \times (5 + 6!/8). \\
68881 &:= \sqrt{(-1 + 6 + 8)^8} + 8!. \\
68945 &:= 4! + (5 + \sqrt{\sqrt{6^8}})^{\sqrt{9}}. \\
69552 &:= (2 + 5)!/5 \times 69.
\end{aligned}
\begin{aligned}
71199 &:= (11!/7! - 9) \times 9. \\
72448 &:= 2 \times (-4^{-4+7} + 8!). \\
73079 &:= (-0! + 3!)^7 - 7! - (\sqrt{9})!. \\
73085 &:= -(0! + 3!) + 5\sqrt{\sqrt{\sqrt{7^8}}}. \\
73236 &:= (-2 + 3!!) \times (-3! + 6!)/7. \\
73433 &:= 3!! \times 3 \times 34 - 7. \\
73434 &:= -3! + (-3! + 4!)/(4 \times 7!). \\
73437 &:= -3 + (-3! + 4!)/(7 + 7!). \\
73965 &:= -3 - 5! + (6 \times 7)^{\sqrt{9}}. \\
74057 &:= (-0! + (\sqrt{4} \times 5)!/7)/7. \\
74144 &:= 14 \times (4^4 + 7!). \\
74160 &:= (0! + (-1 + 4)!!) \times 6!/7. \\
74348 &:= (3!! + 4) \times 47 + 8!. \\
74525 &:= -(2 + 4)! \times 5 + 5^7. \\
74535 &:= (-3!! + \sqrt{4}) \times 5 + 5^7. \\
74876 &:= -4 - 6! + 7! \times (7 + 8). \\
75243 &:= -2 - 3!! \times 4 + 5^7. \\
75245 &:= -24 \times 5! + 5^7. \\
75438 &:= (-3!^4 + 5! \times 7!)/8. \\
75456 &:= 4 \times (\sqrt{(5!/5)^6} + 7!). \\
75486 &:= -4! + 5! \times (-6 + 7!)/8. \\
75519 &:= 15 \times (-5 + 7!) - (\sqrt{9})!. \\
75585 &:= 5! \times (-5/5 + 7!)/8. \\
75589 &:= -5 + 5! \times 7!/8 - (\sqrt{9})!. \\
75598 &:= -5 + 5! \times 7!/8 + \sqrt{9}. \\
75601 &:= 0! + 15 \times 6! \times 7. \\
75615 &:= 15 \times (-5 + 6 + 7!). \\
75685 &:= -5 + 5! \times (6 + 7!)/8. \\
75748 &:= 4! + 5^7 - \sqrt{7^8}. \\
75828 &:= 2 \times (-5 - \sqrt{7^8} + 8!). \\
75838 &:= (3 - 5) \times (\sqrt{7^8} - 8!). \\
75848 &:= \sqrt{4} \times (5 - \sqrt{7^8} + 8!). \\
75884 &:= (\sqrt{4} + 5!) \times (7!/8 - 8). \\
75989 &:= 5^7 + (8 - (\sqrt{9})!)/\sqrt{9}. \\
76335 &:= 3 \times 35 \times (6! + 7). \\
77329 &:= -(2^3)! + (7 \times 7)^{\sqrt{9}}. \\
77395 &:= -3!! + 5^7 - 7 - \sqrt{9}. \\
77405 &:= -(-0! + 4)!! + 5^{\sqrt{7 \times 7}}. \\
77896 &:= -6^7 - 7! - 8 + 9!. \\
77903 &:= -0! - 3!^7 - 7! + 9!. \\
77904 &:= -(-0! + 4)!^7 - 7! + 9!. \\
77957 &:= 5^7 - 7 \times (\sqrt{7 + 9})!. \\
78047 &:= (0! + 4)^7 - 78. \\
78069 &:= (-0! + 6)^7 - 8!/(\sqrt{9})!!. \\
78075 &:= -0! + 5^7 - \sqrt{\sqrt{7^8}}. \\
78076 &:= (-0! + 6)^7 - \sqrt{\sqrt{7^8}}. \\
78115 &:= -(1 + 1)! + 5^7 - 8. \\
78116 &:= -1 + (-1 + 6)^7 + 8. \\
78117 &:= (-1 - 1 + 7)^7 - 8. \\
78125 &:= 1 \times \sqrt{25\sqrt{\sqrt{\sqrt{7^8}}}}.
\end{aligned}$$

$$\begin{aligned}
78132 &:= -1 + (2 + 3)^7 + 8. \\
78133 &:= (-1 + 3 + 3)^7 + 8. \\
78134 &:= 1 + (3 + \sqrt{4})^7 + 8. \\
78135 &:= -1 + 3 + 5^7 + 8. \\
78139 &:= (-1 + 3!)^7 + 8 + (\sqrt{9})!. \\
78174 &:= (1 + 4)^7 + \sqrt{\sqrt{7^8}}. \\
78175 &:= 1 + 5^7 + \sqrt{\sqrt{7^8}}. \\
78253 &:= (2 + 3)! + 5^7 + 8. \\
78255 &:= 2 + 5! + 5^7 + 8. \\
78755 &:= \sqrt{(5 \times 5)^7} + 7!/8. \\
78853 &:= 3! + 5^7 + \sqrt{8 \times 8}. \\
78944 &:= \sqrt{4} \times (-\sqrt{4^7} + 8! - (\sqrt{9})!!). \\
79056 &:= (\sqrt{(-0! + 5)!^6} - 7!) \times 9. \\
79186 &:= \sqrt{\sqrt{16}} \times (-7 + 8! - (\sqrt{9})!!). \\
79507 &:= (05! - 77)^{\sqrt{9}}. \\
79508 &:= 0! + (5 \times 7 + 8)^{\sqrt{9}}. \\
79555 &:= -5 + 5! \times (-57 + (\sqrt{9})!!). \\
79864 &:= (-4! + 6^7 - 8!)/\sqrt{9}. \\
79866 &:= -6 + (6^7 - 8!)/\sqrt{9}. \\
79869 &:= (6^7 - 8! - 9)/\sqrt{9}. \\
79872 &:= 2^7 \times (7!/8 - (\sqrt{9})!). \\
79883 &:= -37 + 8! + 8! - (\sqrt{9})!!. \\
80128 &:= (0! + 1)! \times (-2^8 + 8!). \\
80352 &:= 02 \times (-3!!/5 + 8!). \\
80527 &:= 0! + 2 \times (-57 + 8!). \\
80568 &:= \sqrt{-0! + 5} \times (-\sqrt{\sqrt{6^8}} + 8!). \\
80599 &:= -0! + (-5! + 8! \times (\sqrt{9})!)/\sqrt{9}. \\
80689 &:= 0! + 6 \times (8 + 8!/\sqrt{9}). \\
80696 &:= (0! + 6! + 6!) \times 8!/( \sqrt{9})!!. \\
80734 &:= (-0! + 3) \times (47 + 8!). \\
80738 &:= \sqrt{0! + 3} \times (\sqrt{\sqrt{7^8}} + 8!). \\
80754 &:= \sqrt{04} \times (57 + 8!). \\
81368 &:= -1 + 3^6 + 8! + 8!. \\
82368 &:= \sqrt{(2 \times 3!)^6} + 8! + 8!. \\
83159 &:= -1 + (\sqrt{3!!/5})!/(8 \times (\sqrt{9})!!). \\
83160 &:= (-0! + 13)!/(6! \times 8). \\
83228 &:= 2 \times (-2 + \sqrt{3!^8} + 8!). \\
83238 &:= 2 \times (3 + \sqrt{3!^8} + 8!). \\
83248 &:= 2 \times (3!^4 + 8 + 8!). \\
83532 &:= 2 \times (3! + 3!! \times 58).
\end{aligned}$$

$$\begin{aligned}
83545 &:= 3!! \times (-4 + 5!) + \sqrt{\sqrt{5^8}}. \\
83595 &:= 3 \times (5! + 5^8 - 9!). \\
83655 &:= (-3 + 5!) \times (-5 + (\sqrt{\sqrt{6^8}})!). \\
84680 &:= (0! + 4)^6 \times 8 - 8!. \\
84936 &:= 3! \times (-4 + 6! + 8!/\sqrt{9}). \\
85536 &:= 3!^5 \times \sqrt{\sqrt{\sqrt{(5 + 6)^8}}}. \\
85673 &:= -3!! + 5! \times 6! - \sqrt{\sqrt{\sqrt{7^8}}}. \\
85746 &:= -4! + 5! \times 6! - 7!/8. \\
85765 &:= -5 + 5! \times 6! - 7!/8. \\
85896 &:= 5! \times 6! + 8 - 8^{\sqrt{9}}. \\
86332 &:= (2 + 3!) \times 3!! - 68. \\
86335 &:= (3 + 3!! \times 5!) - 68. \\
86357 &:= 3! + 5! \times 6! - \sqrt{\sqrt{7^8}}. \\
86364 &:= (3 + \sqrt{4})! \times 6! - \sqrt{\sqrt{6^8}}. \\
86436 &:= (3 + \sqrt{4})! \times 6! + \sqrt{\sqrt{6^8}}. \\
86515 &:= (1 + 5!) \times (-5 + (\sqrt{\sqrt{6^8}})!). \\
86556 &:= 5! + 5! \times 6! + \sqrt{\sqrt{6^8}}. \\
87399 &:= (3! + 7) \times (8!/( \sqrt{9})! + \sqrt{9}). \\
87894 &:= (\sqrt{(4 + 7)^8} + 8) \times (\sqrt{9})!. \\
87976 &:= -6^7 + 7! - 8 + 9!. \\
89594 &:= 4 \times 5 \times 8!/9 - (\sqrt{9})!. \\
89595 &:= -5 + (5! \times 8!/9)/( \sqrt{9})!. \\
89599 &:= (5! \times 8!/9 - (\sqrt{9})!)/( \sqrt{9})!. \\
89664 &:= \sqrt{4!^6} \times 6 + 8!/( \sqrt{9})!. \\
89946 &:= (\sqrt{(4 + 6)^8} - (\sqrt{9})!) \times 9. \\
89955 &:= 5 \times (\sqrt{\sqrt{5^8}} \times (\sqrt{9})!! - 9). \\
89973 &:= (\sqrt{(3 + 7)^8} - \sqrt{9}) \times 9. \\
90125 &:= (0! + (1 + 2)!!) \times 5^{\sqrt{9}}. \\
90297 &:= (-0! + 2^7) \times (-9 + (\sqrt{9})!!). \\
92171 &:= 11 + 2^7 \times (\sqrt{9})!!. \\
92172 &:= 12 + 2^7 \times (\sqrt{9})!!. \\
93253 &:= 2 \times 3^{3!} - 59. \\
93352 &:= 2 \times 3^{3!} + 5!/\sqrt{9}. \\
93654 &:= (\sqrt{3^4} + 5!) \times (6 + (\sqrt{9})!!). \\
93750 &:= \sqrt{(-0! + 3!)^{5+7}} \times (\sqrt{9})!. \\
93888 &:= (\sqrt{3!^8} + 8) \times 8 \times 9. \\
93894 &:= 3! \times (4! + (8 - \sqrt{9})^{(\sqrt{9})!}).
\end{aligned}$$

$$\begin{aligned}
93954 &:= (34 + 5^{(\sqrt{9})!}) \times (\sqrt{9})!. \\
93984 &:= (-3!! + \sqrt{\sqrt{4 \times 8^9}}) \times (\sqrt{9})!. \\
94080 &:= (0! + (-0! + 4)!) \times 8!/\sqrt{9}. \\
94081 &:= 0! + 14 \times 8!/( \sqrt{9})!. \\
94178 &:= 14 \times (7 + 8!/( \sqrt{9})!). \\
95047 &:= 0! + (\sqrt{4! + 5!})!/7! + (\sqrt{9})!. \\
95265 &:= (-(2 + 5)! + 5^6) \times 9. \\
95267 &:= 2 + (5^6 - 7!) \times 9. \\
95361 &:= (13 + 5!) \times (6! - \sqrt{9}). \\
95985 &:= (5! + 5!/8) \times ((\sqrt{9})!! - 9). \\
95999 &:= (5!^{\sqrt{9}}/\sqrt{9} - (\sqrt{9})!)/( \sqrt{9})!. \\
96047 &:= -0! + \sqrt{4!^6} \times 7 - (\sqrt{9})!!. \\
96336 &:= 3!^{3!} + 6! \times 69. \\
96472 &:= 2 \times (-4 + 67 \times (\sqrt{9})!!). \\
96672 &:= 2 \times (6^6 + 7!/\sqrt{9}). \\
96744 &:= -4! + \sqrt{4!^6} \times 7!/( \sqrt{9})!!. \\
96747 &:= \sqrt{4!^6} \times 7 - 7 \times \sqrt{9}. \\
96762 &:= \sqrt{(-2 + 6)!^6} \times 7 - (\sqrt{9})!. \\
96774 &:= \sqrt{4!^6} \times \sqrt{7 \times 7} + (\sqrt{9})!. \\
97339 &:= 3 + (37 + 9)^{\sqrt{9}}. \\
97440 &:= ((0! + 4)! - 4) \times 7!/( \sqrt{9})!. \\
97464 &:= 4! \times 4^6 - 7!/( \sqrt{9})!. \\
97755 &:= 5 \times 57 \times 7^{\sqrt{9}}. \\
97917 &:= 17 \times (7! + (\sqrt{9})!!) - \sqrt{9}. \\
97920 &:= (-0! + 2^7 + 9) \times (\sqrt{9})!!. \\
97971 &:= 17 \times (7! + \sqrt{9} + (\sqrt{9})!!). \\
98292 &:= (-2 + \sqrt{2 \times 8^9}) \times (\sqrt{9})!. \\
98298 &:= (-2 + 8^{8-\sqrt{9}}) \times \sqrt{9}. \\
98424 &:= \sqrt{2^{4!}} \times 4! + (8 - \sqrt{9})!. \\
98472 &:= (\sqrt{2^{4!}} + 7) \times 8 \times \sqrt{9}. \\
98494 &:= (4! - \sqrt{4}) \times (8!/9 - \sqrt{9})!. \\
98634 &:= 3^4 \times 6! + 8! - (\sqrt{9})!. \\
98643 &:= 3^4 \times 6! + 8! + \sqrt{9}. \\
99363 &:= (3!! + 3!!) \times 69 + \sqrt{9}. \\
99366 &:= (3!! + 6!) \times 69 + (\sqrt{9})!. \\
99384 &:= (((3!!) + ((-4)^8)) \times 9)/( \sqrt{9})!. \\
99496 &:= 46^{\sqrt{9}} + \sqrt{9} \times (\sqrt{9})!!. \\
99744 &:= \sqrt{4} \times (4^7 \times \sqrt{9} + (\sqrt{9})!!).
\end{aligned}$$

## 6.2 Selfie Numbers in Decreasing Orders of Digits

$$\begin{aligned}
25 &:= 5^2. \\
125 &:= 5^{2+1}. \\
126 &:= 6 \times 21. \\
289 &:= (9 + 8)^2. \\
324 &:= (4! - 3!)^2.
\end{aligned}$$

$$\begin{aligned}
337 &:= 7^3 - 3!. \\
343 &:= (4 + 3)^3. \\
360 &:= 6!/(3 - 0!). \\
384 &:= \sqrt{8^4} \times 3!. \\
464 &:= 6! - 4^4. \\
660 &:= 6! - 60.
\end{aligned}$$

$$\begin{aligned}
688 &:= 8 \times 86. \\
1022 &:= -2 + 2^{[10]}. \\
1024 &:= (4 - 2)^{[10]}. \\
1260 &:= 6 \times 210. \\
1294 &:= (\sqrt{9})!^4 - 2 \times 1.
\end{aligned}$$

1298 := $\sqrt{(\sqrt{9})!^8} + 2 \times 1.$	5120 := $5 \times 2^{[10]}.$	12759 := $-9 + (-7 + 5!)^2 - 1.$
1345 := $5^4 + 3!! \times 1.$	5170 := $7! + 5! + 10.$	12768 := $8 \times 76 \times 21.$
1359 := $9 \times (5! + 31).$	5748 := $8!/7 - \sqrt{5! + 4!}.$	12775 := $7 + (-7 + 5!)^2 - 1.$
1395 := $9 \times 5 \times 31.$	5785 := $8!/7 + 5 \times 5.$	12939 := $(9 + 9) \times 3!! - 21.$
1430 := $\sqrt{4} \times 3!! - 10.$	5994 := $9 \times ((\sqrt{9})!! - 54).$	12940 := $((\sqrt{9})!^4 - 2) \times 10.$
1477 := $7 \times (7!/4! + 1).$	6048 := $8! \times 6/40.$	12964 := $(9 \times 6! + \sqrt{4}) \times 2 \times 1.$
1593 := $\sqrt{9} \times 531.$	6144 := $6 \times 4^{4+1}.$	12980 := $(\sqrt{(\sqrt{9})!^8} + 2) \times 10.$
1673 := $7 \times (6!/3 - 1).$	6291 := $9 \times (6! - 21).$	12995 := $((\sqrt{\sqrt{9} \times 9})! - 5!)^2 - 1.$
1680 := $8!/(-6 + 10)!.$	6478 := $8!/7 + 6! - \sqrt{4}.$	13094 := $-(\sqrt{9})!! + 4!^3 - 10.$
1764 := $\sqrt{(7 \times 6)^4} \times 1.$	6492 := $9 \times 6! + 4!/2.$	13104 := $4!^3 - (1 + 1 + 0!)!!.$
1827 := $87 \times 21.$	6552 := $(6 + 5!) \times 52.$	13224 := $(-4! + 3!!) \times (-2 + 21).$
1944 := $\sqrt{9^4} \times 4! \times 1.$	6684 := $8!/6 - \sqrt{6^4}.$	13225 := $(-5 + (3 + 2)!)^2 \times 1.$
1945 := $(\sqrt{9})!^5/4 + 1.$	6768 := $8 \times (7!/6 + 6).$	13248 := $(8! - 4!^3)/2 \times 1.$
2048 := $8^4/2 + 0.$	6840 := $8!/6 + (4 + 0!)!!.$	13368 := $(8! - 6^3)/3 \times 1.$
2139 := $\sqrt{9} \times 3!! - 21.$	6864 := $8!/6 + 6 \times 4!.$	13380 := $8!/3 - 3! \times 10.$
2304 := $4!^3/(2 + 0!)!!.$	6880 := $8 \times 860.$	13430 := $(4!/3)!!/3 - 10.$
2407 := $7^4 + (2 + 0!)!!.$	7057 := $7 \times 7!/5 + 0!!.$	13433 := $(4!/3)!!/3 - 3! - 1.$
2437 := $7^4 + 3!^2.$	7130 := $(-7 + 3!!) \times 10.$	13434 := $(4 + 4)!!/3 - 3! \times 1.$
2496 := $96 \times (4! + 2).$	7560 := $7! \times 6/(5 - 0!!).$	13435 := $-5 + (4!/3)!!/3 \times 1.$
2515 := $-5 + 5! \times 21.$	8059 := $-(\sqrt{9})! + 8!/5 + 0!!.$	13436 := $(\sqrt{64})!/3 - 3 - 1.$
2547 := $(7! + 54)/2.$	8064 := $8!/(6 - 4^0).$	13438 := $(8! - 4!)/3 + 3! \times 1.$
2736 := $-7! + 6^{3+2}.$	8644 := $(8 + 6! \times 4!)/\sqrt{4}.$	13450 := $(5^4 + 3!!) \times 10.$
2744 := $\sqrt{(7 \times \sqrt{4})^{4+2}}.$	9025 := $95^2 \times 0!!.$	13454 := $\sqrt{(5! - 4)^4} - 3 + 1.$
2876 := $(-8 + 7! + 6!)/2.$	9216 := $96^2 \times 1.$	13456 := $(-6 + 5! + \sqrt{4})^{3-1}.$
2916 := $(9 \times 6)^2 \times 1.$	9648 := $-(\sqrt{9})!! + 8 \times 6^4.$	13458 := $(8! + 54)/3 \times 1.$
3369 := $(9 + 6)^3 - 3!.$	9826 := $\sqrt{(9 + 8)^6} \times 2.$	13459 := $\sqrt{9} + (5! - 4)^{3-1}.$
3372 := $(7!/3 + 3!) \times 2.$	9894 := $-(\sqrt{9})! - ((\sqrt{9})!! - 8!)/4.$	13488 := $8 \times (8!/4! + 3! \times 1).$
3375 := $\sqrt{(75 \times 3)^3}.$	10000 := $100^{0!+0!}.$	13608 := $8!/6! \times \sqrt{3^{10}}.$
3378 := $(8 + 7)^3 + 3.$	10344 := $4! \times 431 \times 0!!.$	13623 := $(6! - 3) \times \sqrt{3!!/2 + 1}.$
3384 := $8 + 4^3! - 3!!.$	10369 := $9!/(6 \times 3! - 1) + 0!!.$	13642 := $(6! - \sqrt{4}) \times \sqrt{3!!/2 + 1}.$
3529 := $(\sqrt{9})!! + 53^2.$	10935 := $9 \times 5 \times \sqrt{3^{10}}.$	13680 := $(8! + 6!)/3 \times 1 \times 0!!.$
3540 := $(5! - \sqrt{4}) \times 30.$	11025 := $(-5 \times 21)^{1+0!}.$	13681 := $(8! + 6!)/3 + (-1 + 1)!!.$
3774 := $7! - 7!/4 - 3!.$	11329 := $9!/32 - 11.$	13682 := $(8! + 6 + 3!!)/(2 + 1).$
3864 := $(-8 + 6^4) \times 3.$	11339 := $9!/(33 - 1) - 1.$	13683 := $(8! + 6!)/3 + 3 \times 1.$
3894 := $(\sqrt{(\sqrt{9})!^8} + \sqrt{4}) \times 3.$	11495 := $95 \times (4 + 1)! + 1.$	13747 := $-77 + 4!^3 \times 1.$
4088 := $-8 + 8^4 \times 0!!.$	11663 := $6^6/(3 + 1) - 1.$	13774 := $-7 \times 7 + 4!^3 - 1.$
4089 := $-(\sqrt{9})! + 8^4 - 0!!.$	11665 := $6^6/(5 - 1) + 1.$	13793 := $(\sqrt{9 + 7})!^3 - 31.$
4098 := $\sqrt{9} + 8^4 - 0!!.$	11767 := $-7! + 7^{-6+11}.$	13813 := $(8 \times 3)^3 - 11.$
4375 := $((7! \times ((-5)^4))/(3!!)!!.$	11859 := $98 \times (5! + 1) + 1.$	13814 := $-8 + 4!^3 - 1 - 1.$
4478 := $((8!/(7 + \sqrt{4})) - \sqrt{4}).$	12095 := $9!/(5 \times (2 + 1)!!) - 0!!.$	13848 := $(\sqrt{8 + 8})! + 4!^3 \times 1.$
4480 := $(8!/((4 - (-4)) + 0!!)).$	12096 := $9!/(6/2 \times 10).$	13849 := $\sqrt{9} \times 8 + 4!^3 + 1.$
4489 := $\sqrt{(\sqrt{9} + \sqrt{8^4})^4}.$	12143 := $(4 \times 3!)!!/(21!) - 1.$	13950 := $9 \times 5 \times 310.$
4560 := $(((-6) + 5!) \times (40)).$	12144 := $4!/(42/(1 + 1))!!.$	13954 := $9 + 5! + 4!^3 + 1.$
4624 := $((64) - (-4))^2.$	12149 := $(\sqrt{9})! + 4!/21! - 1.$	14168 := $(-8 + 6^4) \times 11.$
4760 := $(7 \times (6! - (40))).$	12543 := $(5! - 4!/3)^2 - 1.$	14257 := $7! + (5! - 4!)^2 + 1.$
4973 := $-\sqrt{9} + 7! - 4^3.$	12544 := $(5! - 4 - 4)^2 \times 1.$	14320 := $(-4 + 3!!) \times 2 \times 10.$
4977 := $-9 \times 7 + (\sqrt{\sqrt{7^4}})!!.$	12597 := $(-\sqrt{9} + 7! \times 5/2) \times 1.$	14345 := $\sqrt{5!^4} - 4! - 31.$
	12600 := $6 \times 2100.$	14350 := $5 \times (4 \times 3!! - 10).$
		14360 := $(6! - 4 + 3!!) \times 10.$
		14369 := $(9! - 6!)/4! - 3!! - 1.$

$$\begin{aligned}
14396 &:= \sqrt{((\sqrt{9})!!/6)^4} - 3 - 1. \\
14407 &:= 7^4 \times (4 - 1)! + 0!. \\
14519 &:= (9! + 5!)/(4! + 1) - 1. \\
14539 &:= (\sqrt{9})!! - 5 + 4!^3 \times 1. \\
14545 &:= 5! + \sqrt{5!^4} + 4! + 1. \\
14549 &:= (\sqrt{9})!! + 5 + 4!^{4-1}. \\
14579 &:= \sqrt{9} \times 7! - 541. \\
14635 &:= (6 + 5)^4 - 3! \times 1. \\
14640 &:= (6! \times \sqrt{4} + 4!) \times 10. \\
14645 &:= ((6 + 5)^4 + 4) \times 1. \\
14879 &:= (9! - 8!/7)/4! - 1. \\
14957 &:= \sqrt{9} \times (7! - 54) - 1. \\
14979 &:= -\sqrt{9} \times ((\sqrt{9})! - 7! + 41). \\
14995 &:= (9! - 9!/5!)/4! + 1. \\
14999 &:= -(\sqrt{9})!!/(\sqrt{9})! + 9!/4! - 1. \\
15126 &:= 6 \times (5! \times 21 + 1). \\
15129 &:= (\sqrt{9} + 5!)^2 - 1 + 1. \\
15130 &:= (5! + 3)^{1+1} + 0!. \\
15225 &:= (5 + (5 - 2)!!) \times 21. \\
15235 &:= 5! - 5 + 3!! \times 21. \\
15246 &:= (6 + (\sqrt{5 + 4})!!) \times 21. \\
15267 &:= (7 + 6 \times 5!) \times 21. \\
15279 &:= \sqrt{9} \times (7! + 52 + 1). \\
15288 &:= (8 + (8 - 5)!!) \times 21. \\
15297 &:= \sqrt{9} \times (7! + 5!/2 - 1). \\
15324 &:= 5! + (4 + 3!!) \times 21. \\
15372 &:= (7 + 5 + 3!!) \times 21. \\
15384 &:= 8 + (5! + 4)^{3-1}. \\
15498 &:= 9!/(8 \times 5!) \times 41. \\
15503 &:= -5! + 5^{3!} - 1 - 0!. \\
15504 &:= -5! + 5^{(4-1)!} - 0!. \\
15505 &:= -5! + 5^{5+1 \times 0!}. \\
15562 &:= (6^5 + 5) \times 2 \times 1. \\
15568 &:= (8 + 6^5) \times \sqrt{5 - 1}. \\
15604 &:= 6! + (5! + \sqrt{4})^{1+0!}. \\
15752 &:= 7 + 5! + 5^{(2+1)!}. \\
15753 &:= 7 + 5! + 5^{3!} + 1. \\
15930 &:= \sqrt{9} \times 5310. \\
16225 &:= 6 \times 52^2 + 1. \\
16254 &:= (6! + 54) \times 21. \\
16354 &:= -6 \times 5 + 4^{3!+1}. \\
16368 &:= 8 \times 66 \times 31. \\
16797 &:= -\sqrt{9} - 7 + 7^{6-1}. \\
16875 &:= \sqrt{(8 + 7)^6} \times 5 \times 1. \\
16879 &:= 9 \times 8 + 7^{6-1}. \\
16897 &:= (\sqrt{9})!!/8 + 7^{6-1}. \\
17160 &:= (7 + 6)!/(-1 + 10)! \\
17280 &:= 8!/7 \times (2 + 1 \times 0!).
\end{aligned}$$

$$\begin{aligned}
17281 &:= 8!/7 \times (2 + 1) + 1. \\
17283 &:= 8!/7 \times 3 + 2 + 1. \\
17288 &:= 8 + 8!/7 \times (2 + 1). \\
17289 &:= 9 + 8!/7 \times (2 + 1). \\
17298 &:= \sqrt{9} \times (8!/7 + (2 + 1)!). \\
17354 &:= 75 + 4! \times 3!! - 1. \\
17495 &:= \sqrt{\sqrt{9^{7+5}}} \times 4! - 1. \\
17527 &:= \sqrt{(7 \times 7)^5} + (2 + 1)!!. \\
17529 &:= (\sqrt{9})!! + 7^5 + 2 \times 1. \\
17533 &:= 7^5 + 3! + 3!! \times 1. \\
17580 &:= (8! - 7! - 5!)/(1 + 0!). \\
17637 &:= (7 \times 7! - 6)/(3 - 1). \\
17640 &:= \sqrt{(7 \times 6)^4} \times 10. \\
17647 &:= 7 \times ((7!/(6 + (-4))) + 1). \\
17724 &:= 7 \times (7! + 4!) \times 2 \times 1. \\
17973 &:= -\sqrt{9^7} + 7! \times (3 + 1). \\
17974 &:= -\sqrt{9^7} + 7! \times 4 + 1. \\
18270 &:= 87 \times 210. \\
18433 &:= 8 \times 4^{13}/3! + 1. \\
19197 &:= \sqrt{9} \times 9 \times 711. \\
19208 &:= 98^2 \times (1 + 0!). \\
19428 &:= -(\sqrt{9})!! + (8! - 4!)/2 \times 1. \\
19430 &:= (\sqrt{9})!! \times (4! + 3) - 10. \\
19438 &:= -(\sqrt{9})!! + (8! - 4)/(3 - 1). \\
19467 &:= \sqrt{9^7} + 6! \times 4! \times 1. \\
19512 &:= 9 \times (5! + 2^{11}). \\
19598 &:= \sqrt{9^9} - 85 \times 1. \\
19629 &:= 9 \times (\sqrt{9} \times 6! + 21). \\
19662 &:= \sqrt{\sqrt{\sqrt{9^{6 \times 6}}}} - 21. \\
19759 &:= \sqrt{9^9} + 75 + 1. \\
19800 &:= -(\sqrt{9})!! + 8!)/(1 \times 0! + 0!). \\
19801 &:= -(\sqrt{9})!! + 8!)/(1 + 1) + 0!. \\
19802 &:= -(\sqrt{9})!! + 8!)/2! + 1 + 0!. \\
19803 &:= -(\sqrt{9})!! + 8! + 3!)/(1 + 0!). \\
19806 &:= (\sqrt{9})! + (8! - 6!)/(1 + 0!). \\
19809 &:= 9 + -(\sqrt{9})!! + 8!)/(1 + 0!). \\
19908 &:= (-9!/(\sqrt{9})!! + 8!)/(1 + 0!). \\
20128 &:= 8!/2 - \sqrt{2^{10}}. \\
20148 &:= (8! - 4!)/2 \times 1 \times 0!. \\
20159 &:= (\sqrt{9} + 5)!/2 - 1 \times 0!. \\
20160 &:= (6 + 2)!/(1 \times 0! + 0!). \\
20161 &:= (6 + 2)!/(1 + 1) + 0!. \\
20162 &:= (6 + 2)!/2 + 1 + 0!. \\
20163 &:= (6 + (3! + 2)!)/(1 + 0!). \\
20164 &:= (6 \times 4! - 2)^{1+0!}. \\
20182 &:= 8!/2 + 21 + 0!. \\
20184 &:= (8! + 4! \times 2)/(1 + 0!). \\
20280 &:= 8!/2 + ((2 + 0!)! - 0!)!.
\end{aligned}$$

$$\begin{aligned}
25075 &:= 7! \times 5 - 5^{2+0!}. \\
25150 &:= 5 \times ((5 + 2)! - 10). \\
25187 &:= 8 + 7! \times 5 - 21. \\
25207 &:= 7 \times ((5!/2)^2 + 0!). \\
25249 &:= -9! + (5^4 - 2)^2. \\
25577 &:= (7! + 75) \times 5 + 2. \\
25733 &:= -7 + (-5 + 3!!) \times 3!^2. \\
25746 &:= (7! - 6) \times 5 + 4!^2. \\
25768 &:= -8 + 7! + (6!/5)^2. \\
25774 &:= 7! + (7 + 5)^4 - 2. \\
25776 &:= (\sqrt{7 \times 7})! + (6!/5)^2. \\
25784 &:= 8 + (7! \times 5 + 4!)^2. \\
25918 &:= -\sqrt{9} + 8! - 5!^2 + 1. \\
25926 &:= (\sqrt{9})! + 6! \times (5 - 2)!^2. \\
25928 &:= (\sqrt{9})! + 8! - 5!^2 + 2. \\
25932 &:= (\sqrt{9})! \times (5! \times 3!)^2 + 2. \\
25947 &:= (9!/7 + 54)/2. \\
25974 &:= (-9 + 7!/5) \times (4! + 2). \\
26173 &:= (7 + 6!) \times 3!^2 + 1. \\
26244 &:= (-6 + 4 \times 42)^2. \\
26279 &:= (9!/7 + 6! - 2)/2. \\
26384 &:= (8! - 6! - 4!)/3 \times 2. \\
26455 &:= (6! - 5) \times (-5 + 42). \\
26754 &:= \sqrt{7^6} \times (5! - 42). \\
26836 &:= (8! - 66)/3 \times 2. \\
26848 &:= (-8 + 8!/6) \times \sqrt{4^2}. \\
26864 &:= 8! - (6!/6 - 4)^2. \\
26868 &:= 8! - (8!/6 + 6) \times 2. \\
26883 &:= (8 \times 8!/6 + 3!)/2. \\
26884 &:= 8 \times (8! + 6)/(4!/2). \\
26893 &:= 9 + (8! + 6)/3 \times 2. \\
26898 &:= 9 + (8! + 8!)/6 \times 2. \\
27363 &:= (76 \times 3! + 3!)/2. \\
27497 &:= -(\sqrt{9})!! - 7 + (7 \times 4!)^2. \\
27719 &:= (\sqrt{9})!! \times 77/2 - 1. \\
27984 &:= (\sqrt{9})! \times 8 \times (7 + 4!)^2. \\
28184 &:= 8 + 8! - 4!/2!. \\
28224 &:= (8 \times 42/2)^2. \\
28368 &:= 8!/8 + 6^{3!}/2. \\
28376 &:= 8 + 7! + 6^{3!}/2. \\
28640 &:= (-8 + 6! \times \sqrt{4}) \times 20. \\
28656 &:= 8! - (6 + 6 - 5!)^2. \\
28678 &:= \sqrt{8^8} \times 7 + \sqrt{6^2}. \\
28758 &:= (-8 + 8!/7) \times 5 - 2. \\
28795 &:= -\sqrt{9} + 8!/7 \times 5 - 2. \\
28797 &:= -\sqrt{9} + 8!/7 \times (7 - 2). \\
28798 &:= (-\sqrt{9} + 8) \times 8!/7 - 2. \\
28944 &:= (\sqrt{9})!! + (84 \times \sqrt{4})^2.
\end{aligned}
\begin{aligned}
28960 &:= ((\sqrt{9})!! + 8 + 6!) \times 20. \\
29160 &:= (9 \times 6)^2 \times 10. \\
29169 &:= 9 \times (9 \times 6!/2 + 1). \\
29282 &:= (\sqrt{9} + 8)^{2 \times 2} \times 2. \\
29284 &:= (\sqrt{9} + 8)^4 \times 2 + 2. \\
29523 &:= (9^5 - 3!/2)/2. \\
29524 &:= (9^5 - \sqrt{4}/2)/2. \\
29525 &:= (9^5 + 5)/2 - 2. \\
29529 &:= (\sqrt{9})!! + 9 + 5!^2 \times 2. \\
29584 &:= \sqrt{9} + \sqrt{(8 + 5)^{4 \times 2}}. \\
29643 &:= (\sqrt{9} + 6!) \times (43 - 2). \\
29664 &:= 9!/(6 + 6) - 4!^2. \\
29735 &:= 9 \times 7! - 5^{3 \times 2}. \\
29754 &:= (\sqrt{9})! \times (7! - (5 + 4)^2). \\
29808 &:= \sqrt{(\sqrt{9})!^8} \times ((8/2)! - 0!). \\
29868 &:= (\sqrt{9})! \times (8!/8 - 62). \\
29929 &:= (9 \times 9 + 92)^2. \\
29994 &:= (\sqrt{9})! - ((\sqrt{9})! - (\sqrt{9})!!) \times 42. \\
30272 &:= 7! \times 3! + \sqrt{\sqrt{2^{20}}}. \\
30299 &:= ((\sqrt{9})!! + 9!)/(3! \times 2) - 0!. \\
30497 &:= (\sqrt{9})! \times (7! + 43) - 0!. \\
30529 &:= -(\sqrt{9})!! + 5^{3!} \times 2 - 0!. \\
30564 &:= 6 \times (54 + (3! + 0!)!). \\
30964 &:= \sqrt{9} + 6! \times 43 + 0!. \\
30984 &:= \sqrt{(\sqrt{9})!^8} \times 4! - (3! - 0!)!. \\
31104 &:= 4 \times \sqrt{(3! \times 1)^{10}}. \\
31684 &:= ((8 - 6!)/4)^{3-1}. \\
31744 &:= (7 + 4!) \times 4^{3!-1}. \\
31950 &:= 9 \times 5 \times (3! - 10). \\
32048 &:= (8 \times 4)^3 - (2 + 0!)!!. \\
32175 &:= (7^5 - 3!!) \times 2 + 1. \\
32355 &:= (-5 + 5 \times 3!!) \times 3^2. \\
32394 &:= -(\sqrt{9})! + ((4! + 3!) \times 3!)^2. \\
32448 &:= (8! + \sqrt{\sqrt{4^{4!}}} \times 3!)/2. \\
32476 &:= 7! + \sqrt{(6! + \sqrt{4})^3 \times 2}. \\
32528 &:= 8^5 - (3 + 2)! \times 2. \\
32546 &:= -6^5 + (4!/3)! + 2. \\
32805 &:= 8^5 + 3!^2 + 0!. \\
32848 &:= 8 \times (8 + 4^{3!} + 2). \\
32854 &:= 8^5 + 43 \times 2. \\
32880 &:= (8! - 8!/3! - (2 + 0!)!!). \\
33074 &:= (\sqrt{7^4} - 3) \times (3! - 0!). \\
33180 &:= 8! + (3! - 3!) \times 10. \\
33458 &:= 8^5 - 4! - 3! + 3!!. \\
33579 &:= 9 \times 7 \times 533. \\
33589 &:= (-(\sqrt{9})! + 8!) \times 5/3! - 3!. \\
33599 &:= (9!/9 \times 5 - 3!)/3!.
\end{aligned}
\begin{aligned}
33720 &:= (7!/3 + 3!) \times 20. \\
33876 &:= (8!/7 + 6) \times 3! - 3!. \\
34248 &:= 8! - 4!/(4! - 3!)!. \\
34377 &:= 7 \times (7! - 43 \times 3). \\
34452 &:= (-54 + 4! \times 3!!) \times 2. \\
34496 &:= ((\sqrt{9})!! + 6!) \times 4! - 4^3. \\
34578 &:= (8!/7 + \sqrt{5 + 4}) \times 3!. \\
34847 &:= 8! - \sqrt{74^4} + 3. \\
34858 &:= 8! - (8^5 + 4)/3!. \\
34937 &:= ((\sqrt{9})!! - 7) \times (43 + 3!). \\
34938 &:= (\sqrt{(\sqrt{9})!^8} - \sqrt{4}) \times 3^3. \\
34965 &:= 9 \times (6^5/\sqrt{4} - 3). \\
34968 &:= (-9 + 8!/6!) \times (4! + 3!!). \\
34988 &:= ((\sqrt{9})!^8/8 - 4!)/3!. \\
34995 &:= \sqrt{9} + \sqrt{9^5} \times 4! \times 3!. \\
35268 &:= 8! - 6 \times (5! + 3! + 2). \\
35384 &:= 8! - 5! - 4^{3!} - 3!. \\
35400 &:= (5! - \sqrt{4}) \times 300. \\
35557 &:= 7^5 + 5^5 \times 3!. \\
35784 &:= 8! - 7! + (5 + 4)!/3!. \\
35785 &:= 8!/(7 - 5) + 5^{3!}. \\
35793 &:= 97 \times (5! + 3) \times 3. \\
35910 &:= (-9 + 5 \times 3!!) \times 10. \\
35928 &:= (9 \times 8!/5 - 3!)/2. \\
35964 &:= 9 \times 6 \times (-54 + 3!!). \\
35973 &:= -\sqrt{9^7} + 53 \times 3!. \\
35985 &:= 9!/8 - 5^5 \times 3. \\
35991 &:= 9 \times (9 + 5!) \times 31. \\
36144 &:= 6^4 \times 4! + (3! + 1)!. \\
36186 &:= 8! - 6 \times (6! - 31). \\
36294 &:= 9!/(6 + 4) + 3 \times 2. \\
36568 &:= 8!/6! \times 653. \\
36594 &:= 9 \times (-6 \times 5 + 4^{3!}). \\
36684 &:= 8! - \sqrt{66^4} + 3!. \\
36768 &:= 8 \times 766 \times 3!. \\
36792 &:= (9! + 7!)/(6 + 3! - 2). \\
36798 &:= \sqrt{9^8} + 7! \times 6 - 3. \\
37179 &:= \sqrt{9^7} \times (-7 + (3 + 1)!). \\
37294 &:= 9! \times 74/3! - 2. \\
37297 &:= -(\sqrt{9})! + 7 \times 73^2. \\
37424 &:= (7! + 4!^4)/3^2. \\
37428 &:= 8! - (7! + 4! + 3!)/2. \\
37484 &:= 8! + 7!/4 - 4^{3!}. \\
37536 &:= -76 \times 5! + 3^{3!}. \\
37576 &:= -\sqrt{(7 + 7)^6} + (5 + 3)!. \\
37742 &:= (7! + 7 + 4!^3) \times 2. \\
37791 &:= 9 \times (7! - 7!/3! - 1). \\
37800 &:= 8! - 7!/(3 \times 0! - 0!). \\
37801 &:= 8! - 7!/(3 - 1) + 0!. \\
37802 &:= 8! - (7! - 3!)/2 - 0!. \\
37803 &:= 8! - (7! - 3!)/(3 - 0!).
\end{aligned}$$

37824 := $8! - 7!/ \sqrt{4} + (3! - 2)!.$	39780 := $(\sqrt{9})!! + 8! - 7!/(3 + 0!).$	41353 := $-5! + 4!^3 \times 3 + 1.$
37854 := $8! - (7! - 5!)/ \sqrt{4} - 3!.$	39798 := $9!/9 - 87 \times 3!.$	42384 := $8! + 4! \times 43 \times 2.$
37919 := $9!/9 - 7^{3+1}.$	39817 := $-(\sqrt{9})!! + 8! + 7 \times 31.$	42385 := $8! + 5^4 + 3!! \times 2.$
38024 := $(8 \times 4! + 3)^2 - 0!.$	39818 := $9 + 8! - 8^3 + 1.$	42624 := $(\sqrt{64})! + (4! \times 2)^2.$
38130 := $8! - 3 \times (3!! + 10).$	39849 := $\sqrt{9^9} + 8!/\sqrt{4} + 3!.$	42659 := $((-9 + 6!) \times 5! - \sqrt{4})/2.$
38139 := $(\sqrt{9})! + 8! - 3^{3!+1}.$	39867 := $\sqrt{9} + 8! - 76 \times 3!.$	42718 := $8! + 7^4 - 2 - 1.$
38152 := $-8 + 53 \times (2 + 1)!!.$	39873 := $-9 + 8! - 73 \times 3!.$	42721 := $7^4 + (2^{2+1})!.$
38153 := $-8 + 53 \times 3!! + 1.$	39876 := $-\sqrt{9} + 8! - 7 \times 63.$	42723 := $7^4 + (3! + 2)! + 2.$
38328 := $8! - 83 \times (3! - 2)!.$	39887 := $-(\sqrt{9})!!/8 + 8! - 7^3.$	42768 := $8! + 7! - 6^4 \times 2.$
38368 := $8! - \sqrt{8^6} - 3!! - 3!!.$	39889 := $9 \times 9 + 8! - 8^3.$	42827 := $8! + 7! - (4! + 2)/2.$
38376 := $8 \times (7! - 6!/3 - 3).$	39897 := $-(\sqrt{9})!!/9 + 8! - 7^3.$	42835 := $8! - 5 + (4 + 3)!/2.$
38409 := $((\sqrt{9})! + 8)^4 - 3! - 0!.$	39936 := $-9!/(9 \times 6) + 3!^{3!}.$	42837 := $8! + 7!/\sqrt{4} - \sqrt{3^2}.$
38416 := $(8 + 6)^{4!3!} \times 1.$	39977 := $((-9 + 9)! + 7)! - 7^3.$	42849 := $(9 - 8 \times 4! - 4!)^2.$
38419 := $((\sqrt{9})! + 8)^4 + 3 \times 1.$	39982 := $((\sqrt{9})!! - (\sqrt{9})!) \times 8!/3!! - 2.$	42864 := $8! + (6^4 - 4!) \times 2.$
38445 := $8! - (5!/4!)^4 \times 3.$	40081 := $8! - 4! \times 10 + 0!.$	42877 := $8! + (7! + 74)/2.$
38446 := $(8 + 6)^4 + 4! + 3!.$	40086 := $8! - 6 \times (40 - 0!).$	42960 := $\sqrt{9} \times (6! - 4) \times 20.$
38512 := $-8 + 5! \times 321.$	40158 := $8! - 5! - 41 - 0!.$	43205 := $5 \times (4! \times 3!!/2 + 0!).$
38523 := $8! - (5 \times 3!! - 3!)/2.$	40184 := $8! - 4 \times (4! + 10).$	43245 := $5 \times (4 \times 4! - 3)^2.$
38597 := $-\sqrt{9} + 8! - (7! + 5!)/3.$	40186 := $8! - 6 \times 4! + 10.$	43280 := $8! + 4 \times (3!! + 20).$
38598 := $(\sqrt{9^8} - 8 - 5!) \times 3!.$	40188 := $8! - (8 + 4)!/10!.$	43320 := $(\sqrt{4} + 3!!) \times 3 \times 20.$
38634 := $8! - 6 - (4 + 3)!/3.$	40239 := $-\sqrt{9^4} + (3! + 2 \times 0!)!.$	43328 := $8! + 4 \times (3!! + 32).$
38637 := $8! - 7!/(6 - 3) - 3.$	40247 := $-74 + (4 \times 2)! + 0!.$	43350 := $(5 + \sqrt{4} \times 3!!) \times 30.$
38744 := $8! + 7!/\sqrt{4} - 4^{3!}.$	40256 := $-65 + (4 \times 2)! + 0!.$	43374 := $(7!/4!)^{\sqrt{4}} - 3! - 3!!.$
38745 := $8! - 75 \times (4! - 3).$	40258 := $8! - (5! + 4)/2 \times 0!.$	43398 := $9 \times (8^4 + 3!) + 3!!.$
38784 := $8! - 8^{7-4} \times 3.$	40271 := $-\sqrt{7^4} + (-2 + 10)!.$	43554 := $(5! + \sqrt{5!^4} - \sqrt{4}) \times 3.$
38847 := $8! - (8! - 7!)/4! - 3.$	40280 := $8! - 42 + 0! + 0!.$	43555 := $-5 + (5! + \sqrt{5!^4}) \times 3.$
38874 := $8! - 8!/(7 \times 4) - 3!.$	40286 := $8! - \sqrt{6^4} + 2 \times 0!.$	43562 := $(6! \times 5! + 4 + 3!!)/2.$
38940 := $(\sqrt{(\sqrt{9})!^8} + \sqrt{4}) \times 30.$	40345 := $-5 + (4 + 4)! + 30.$	43566 := $(6 + 6!) \times 5!/\sqrt{4} + 3!.$
38952 := $9 \times (8 + 5! \times 3!)^2.$	40350 := $5!/4 + (3! + 0! + 0!)!.$	43632 := $(6! + 4!^3) \times 3!/2.$
38983 := $-(\sqrt{9})! + 8! - (8 + 3)^3.$	40364 := $(\sqrt{64})! + 43 + 0!.$	43648 := $(8^6 - 4^4)/3!.$
38985 := $9 + 8! - 8!/(5 \times 3!).$	40378 := $8! + 7 \times 4 + 30.$	43689 := $(\sqrt{9})! + (8^6 - 4)/3!.$
39024 := $-(\sqrt{9})!^4 + (3! + 2)! \times 0!.$	40465 := $6!/5 + (4 + 4)! + 0!.$	43698 := $(\sqrt{9^8} + 6! + \sqrt{4}) \times 3!.$
39203 := $((\sqrt{9})! \times 33)^2 - 0!.$	40480 := $8! + 4 \times 40 \times 0!.$	43784 := $8 \times (\sqrt{74^4} - 3).$
39204 := $((9 + 4!) \times 3!)^2 \times 0!.$	40489 := $8! + 9 + 4 \times 40.$	43856 := $8! + (6! \times 5 - 4^3).$
39280 := $-(\sqrt{9})!! + 8! - 320.$	40680 := $8! + 6!/4^0 + 0!.$	43918 := $9!/8 - \sqrt{4} \times (3!! + 1).$
39305 := $-(\sqrt{9})! + 5!/3)^3 + 0!.$	40681 := $8! + 6!/ \sqrt{4} + 1 \times 0!.$	43925 := $((\sqrt{9})! + 5)^4 \times 3 + 2.$
39342 := $9^4 \times 3! - (3! - 2)!.$	40682 := $8! + (6! + 4)/2 \times 0!.$	43981 := $-(\sqrt{9} + \sqrt{8^4}) \times (3!! + 1).$
39357 := $9 \times (7! + 53 - 3!!).$	40683 := $8! + 6!/ \sqrt{4} + 3 \times 0!.$	44097 := $-\sqrt{9} + (7!/4!)^{\sqrt{4}} \times 0!.$
39368 := $\sqrt{9^8} \times 6 + 3!/3.$	40684 := $8! + 6!/ \sqrt{4} + 4 \times 0!.$	44099 := $-(\sqrt{9})! + 9 \times 4!)^{\sqrt{4}} - 0!.$
39402 := $(9^4 + 3!) \times (2 + 0!)!.$	40686 := $8! + 6 + 6!/ \sqrt{4} \times 0!.$	44389 := $-\sqrt{9} + 8! - 4! + 4^{3!}.$
39403 := $(9^4 + 3!) \times 3! + 0!.$	40689 := $9 + 8! + 6!/ \sqrt{4} \times 0!.$	44398 := $(\sqrt{9})! + 8! - 4! + 4^{3!}.$
39419 := $(9 + 9^4) \times 3! - 1.$	40833 := $8! + (4!/3)^3 + 0!.$	44438 := $8! - \sqrt{4} + 4! + 4^{3!}.$
39528 := $9 \times (8!/5 + 3!!)/2.$	40855 := $8! - 5 + 540.$	44538 := $8! + 5! + \sqrt{4} + 4^{3!}.$
39538 := $-9 + 8! - 53 - 3!!.$	40890 := $-(\sqrt{9})! + 8! + 4!^{0!+0!}.$	44652 := $(6! \times (5! + 4) + 4!)/2.$
39658 := $-9 + 8! - 653.$	40892 := $-\sqrt{9} + 8! + 4!^{1!2} - 0!.$	44729 := $((9! - 7!)/4 - \sqrt{4})/2.$
39672 := $9 \times (7! - 632).$	40985 := $(\sqrt{9})!! + 8! - 54 - 0!.$	44735 := $7! - 5^4 + (4!/3)!.$
39682 := $-(\sqrt{9})! + 8! - 632.$	41344 := $(4 + 4)! + 4^{3!-1}.$	44759 := $9 \times 7! - 5^4 + 4!.$
39690 := $9!/9 - 630.$	41348 := $8! + 4 + 4^{3!-1}.$	44896 := $9!/8 - 6! + 4^4.$

$$\begin{aligned}
44973 &:= 9 \times ((\sqrt{\sqrt{7^4}})! - 43). \\
44991 &:= 9 \times ((\sqrt{9} + 4)! - 41). \\
45276 &:= \sqrt{7^6} \times (5! + 4!/2). \\
45298 &:= 9!/8 - (5! + 4)/2. \\
45324 &:= ((5 + \sqrt{4})! - 4) \times 3^2. \\
45328 &:= 8! + (5 + \sqrt{4})! - 32. \\
45345 &:= (-5! + (5 + 4)!)/(4!/3). \\
45389 &:= 9!/8 + 5 + 4 \times 3!. \\
45390 &:= 9 \times (5 + \sqrt{4})! + 30. \\
45391 &:= 9 \times (5 + \sqrt{4})! + 31. \\
45392 &:= 9 \times (5 + \sqrt{4})! + 32. \\
45398 &:= 9!/8 - 5 + 43. \\
45576 &:= 76 \times 5 \times 5! - 4!. \\
45598 &:= 9!/8 + 5! + 5! - \sqrt{4}. \\
45600 &:= (-6 + 5!) \times 400. \\
45719 &:= (\sqrt{9}!! \times (7 + 5!)) / \sqrt{4} - 1. \\
45738 &:= 8! + 7 \times (54 + 3!). \\
45792 &:= 9 \times (7! + (5! - 4!))/2. \\
45796 &:= (9 - \sqrt{7^6} + 5!)^{\sqrt{4}}. \\
45897 &:= \sqrt{9^8} \times 7 - 5!/4. \\
45927 &:= \sqrt{9^7} \times (5 + 4^2). \\
45958 &:= 9!/8 + 5 \times 5! - \sqrt{4}. \\
45966 &:= -(\sqrt{9}!! + 6^6 + 5!)/4. \\
45978 &:= 9!/8 - 7 + 5^4. \\
45979 &:= -(\sqrt{9})! + 9 \times 7! + 5^4. \\
45985 &:= 9!/8 + \sqrt{(5 \times 5)^4}. \\
45996 &:= -(\sqrt{9}!! + (\sqrt{9})!^6 + 5!/\sqrt{4}). \\
46256 &:= 6^6 - (5 \times 4)^2. \\
46295 &:= (\sqrt{9})!^6 - (-5 + 4!)^2. \\
46337 &:= -\sqrt{7^6} + 4! + 3!^{3!}. \\
46368 &:= 8! + (6! + 6^4) \times 3!. \\
46506 &:= 6 \times (6^5 - 4! - 0!). \\
46512 &:= (6^5 - 4!) \times (2 + 1)! . \\
46513 &:= (6^5 - 4!) \times 3! + 1. \\
46540 &:= 65 \times (-4 + (4 - 0!)!!). \\
46593 &:= (\sqrt{9})!^6 - 5!/\sqrt{4} - 3. \\
46594 &:= (\sqrt{9})!^6 - (5! + 4)/\sqrt{4}. \\
46599 &:= -\sqrt{9} + (\sqrt{9})!^6 - 54. \\
46613 &:= 6^6 - 43^1. \\
46615 &:= 6 \times 6^5 - 41. \\
46619 &:= (\sqrt{9})!^6 - \sqrt{6^4} - 1. \\
46623 &:= 6^6 - 4! - 3^2. \\
46784 &:= 8! \times 7/6 - 4^4. \\
46797 &:= 9!/7 - 7! - 6/\sqrt{4}. \\
46889 &:= \sqrt{9^8} + 8 + (\sqrt{64})!. \\
46899 &:= \sqrt{9} \times (\sqrt{9} - 8)^6 + 4!. \\
46956 &:= (\sqrt{9})!^6 + (6! - 5!)/\sqrt{4}. \\
46971 &:= 9 \times (7! + 6!/4 - 1).
\end{aligned}
\begin{aligned}
46995 &:= (\sqrt{9} + (\sqrt{9})!!) \times \sqrt{\sqrt{65^4}}. \\
46997 &:= (\sqrt{9})!^{(\sqrt{9})!} + (\sqrt{7^6} - \sqrt{4}). \\
47033 &:= 7 \times ((4!/3)!/3! - 0!). \\
47399 &:= (\sqrt{9})!^{(\sqrt{9})!} + 743. \\
47524 &:= ((7 - 5! + 4) \times \sqrt{4})^2. \\
47595 &:= (\sqrt{9})!! + 75 \times 5^4. \\
47635 &:= 7 + \sqrt{(6 + 5!)^4} \times 3. \\
47652 &:= 76 \times (5^4 + 2). \\
47799 &:= 9 \times (-9 + 7!) + 7!/\sqrt{4}. \\
47868 &:= 8! + (-8 + 7!) \times 6/4. \\
47873 &:= 8! - 7 + 7!/4 \times 3!. \\
47876 &:= (8! \times 7 + 7!)/6 - 4. \\
47880 &:= 8! + (8! + 7!)/(4 - 0!). \\
47883 &:= 8! + \sqrt{87^4} - 3!. \\
47892 &:= 9!/8 + (7! + 4!)/2. \\
47898 &:= 9 + 8! + \sqrt{87^4}. \\
48056 &:= 8! + 6^5 - 40. \\
48333 &:= 8!/4! - 3 + 3!^{3!}. \\
48334 &:= 8!/4! - \sqrt{4} + 3!^{3!}. \\
48336 &:= 8!/6 \times 4 + 3!^{3!}. \\
48339 &:= \sqrt{9} + 8!/4! + 3!^{3!}. \\
48344 &:= 8! + 4! + (-4 + 4!)^3. \\
48378 &:= 8! + 8!/(7 - \sqrt{4}) - 3!. \\
48382 &:= 8! + 8!/( \sqrt{4} + 3) - 2. \\
48384 &:= 8! - 8!/(4/4 - 3!). \\
48384 &:= 8 \times 84 \times 4! \times 3. \\
48385 &:= 8! + 8!/5 + 4 - 3. \\
48387 &:= 8! + 8!/(7 - \sqrt{4}) + 3. \\
48390 &:= (\sqrt{9})! \times (8! / (\sqrt{4} + 3) + 0!). \\
48393 &:= 9 + 8! / (\sqrt{4} + 3) \times 3!. \\
48576 &:= 8 \times (7! \times 6/5 + 4!). \\
48596 &:= \sqrt{\sqrt{9^8}} \times (6! - 5!) - 4. \\
48640 &:= \sqrt{8^6} \times (4 \times 4! - 0!). \\
48672 &:= 8 \times (76 + \sqrt{4})^2. \\
48954 &:= -(\sqrt{9})! + 85 \times 4! \times 4!. \\
49284 &:= ((\sqrt{9})! + 8 \times 4! + 4!)^2. \\
49293 &:= 9 + (9 \times 4! + 3!)^2. \\
49347 &:= 9 \times (7! + 443). \\
49668 &:= 9!/8 + 6 \times (6! - \sqrt{4}). \\
49729 &:= ((\sqrt{9})!^{\sqrt{9}} + 7)^{\sqrt{4^2}}. \\
49775 &:= 9 \times 7! + 7! - 5^4. \\
49904 &:= -(\sqrt{9})!! + (-9 + 4!)^4 - 0!. \\
49905 &:= -(\sqrt{9})!! + (\sqrt{9} \times 5)^4 \times 0!. \\
49906 &:= -(\sqrt{9})!! + (9 + 6)^4 + 0!. \\
49923 &:= \sqrt{9} \times 9 \times 43^2. \\
49925 &:= \sqrt{9} \times \sqrt{(9 + 5!)^4} + 2. \\
50401 &:= (5 + \sqrt{4})! \times 10 + 0!. \\
50427 &:= (7^5 + \sqrt{4}) \times (2 + 0!).
\end{aligned}
\begin{aligned}
51696 &:= (\sqrt{9} \times 6! - 6) \times (5 - 1)!. \\
51697 &:= 9!/7 - 6!/5 + 1. \\
51719 &:= 9!/7 - 5! - (-1 + 1)!. \\
51789 &:= (9 \times 8!)/7 - 51. \\
51790 &:= 9!/7 - 5 \times 10. \\
51794 &:= 9!/7 - 5 - 41. \\
51797 &:= 9!/7 - 7!/5! - 1. \\
51840 &:= (8 - 5)!!^{\sqrt{4}}/10. \\
51967 &:= 9!/7 + 6 + 5! + 1. \\
52079 &:= 9!/7 + 5! \times 2 - 0!. \\
52168 &:= 8 \times 6521. \\
52864 &:= 8! + (-6 + 5! - \sqrt{4})^2. \\
53289 &:= -(\sqrt{9})!! + 8! + (5! - 3)^2. \\
53475 &:= 75 \times (-5 - \sqrt{4} + 3!). \\
53548 &:= 8! + \sqrt{(-5 + 5!)^4} + 3. \\
53783 &:= 8 + 75 \times (-3 + 3!). \\
53824 &:= (((8 - 5)!! - 4!)/3)^2. \\
53845 &:= 85 \times 5^4 + 3!. \\
53886 &:= 8 \times 8!/6 + 5! + 3!. \\
53970 &:= (\sqrt{9})!! \times 75 - 30. \\
53973 &:= (\sqrt{9})!! \times 75 - 3^3. \\
53997 &:= -\sqrt{\sqrt{9 \times 9} + 75 \times 3!}. \\
54009 &:= 9^5 - ((4 - 0!)! + 0!). \\
54075 &:= 75 \times ((\sqrt{5 + 4})!! + 0!). \\
54138 &:= 8! - 5 + 4!^3 - 1. \\
54244 &:= \sqrt{(5! - \sqrt{4})^4 + (4 \times 2)!}. \\
54289 &:= (9 - (8 - 5!) \times \sqrt{4})^2. \\
54369 &:= (-9 + 6^5) \times (4 + 3). \\
54375 &:= 75 \times (5!/4 + 3!). \\
54376 &:= 7 \times (6^5 - 4!/3). \\
54378 &:= 87 \times (5^4 + 3). \\
54384 &:= 8! + (5! \times \sqrt{4} + 4!)^3. \\
54456 &:= 6^5 \times (5 + \sqrt{4}) + 4!. \\
54476 &:= 7 \times 6^5 + 44. \\
54576 &:= 7 \times 65 \times 5! - 4!. \\
54607 &:= 7 \times (6^5 + 4! + 0!). \\
54648 &:= (8! - \sqrt{(-6 + 5!)^4}) \times \sqrt{4}. \\
54719 &:= 9!/7 + 5! \times 4! - 1. \\
54726 &:= 7 \times (6^5 + 42). \\
54768 &:= 8 \times (7! + 6) + \sqrt{5!^4}. \\
54795 &:= \sqrt{9} \times (7! + \sqrt{(-5 + 5!)^4}). \\
54953 &:= \sqrt{9^{5+5}} - 4^{3!}. \\
55225 &:= (5 \times (-5 + 52))^2. \\
55320 &:= -5! + (5 + 3!)!/(2 + 0!)!!. \\
55384 &:= (-8! + (\sqrt{5! + 5 - 4})!)/3!!. \\
55435 &:= -5 + (\sqrt{5! + 5 - 4})!/3!!. \\
55436 &:= ((6 + 5)! - 5! \times 4!)/3!. \\
55440 &:= (\sqrt{5! + 5 - 4})!/(4 - 0!)!!. \\
55449 &:= 9^5 - 5 \times (4!/4)!. \\
55476 &:= -7! + (6 + 5! + 5!)^{\sqrt{4}}. \\
55728 &:= 8! \times 7/5 - (5 - 2)!!.
\end{aligned}$$

$$\begin{aligned}
55823 &:= 8! - 5! + (5^{3!} - 2). \\
55825 &:= 8! - 5! + 5^{(5-2)!}. \\
55862 &:= 8! + (6^5 - 5) \times 2. \\
55924 &:= -(\sqrt{9})!! + (5! + 5! - \sqrt{4})^2. \\
56568 &:= 8 \times (-6! + 6^5) + 5!. \\
56587 &:= (8! \times 7 + 6!) / 5 - 5. \\
56644 &:= ((-6 + 6!) / \sqrt{5 + 4})^{\sqrt{4}}. \\
56832 &:= \sqrt{8^6} \times (5! - 3^2). \\
56885 &:= 8 \times 8!/6 + 5^5. \\
56952 &:= 9!/6! \times (5! - 5 - 2). \\
57128 &:= 8! + 7^5 + 2 - 1. \\
57295 &:= -9! + 7^5 \times 5^2. \\
57339 &:= 9 \times (7! + (5 + 3!)^3). \\
57456 &:= 7! \times (-6 + 5!) / (5 \times \sqrt{4}). \\
57525 &:= -75 + (5! + 5!)^2. \\
57624 &:= \sqrt{7^6} \times (5! + 4! \times 2). \\
57642 &:= 7 \times 6 + (5! \times \sqrt{4})^2. \\
57843 &:= 8! + 7^5 - 4 + 3!. \\
57849 &:= (\sqrt{9})!! + 8! + 7^5 + \sqrt{4}. \\
58199 &:= (\sqrt{9})!! \times \sqrt{\sqrt{9^8} - 5!} - 1. \\
58319 &:= \sqrt{\sqrt{9^8} \times 5!} \times 3! - 1. \\
58329 &:= (9!/8!)^5 - (3 \times 2)! . \\
58368 &:= \sqrt{\sqrt{(8 \times 8)^6} \times (5! - 3!)}. \\
58794 &:= -(\sqrt{9})! + 8! \times 7 \times 5/4!. \\
58929 &:= 9 \times \sqrt{9^8} - (\sqrt{5^2})!. \\
58935 &:= (9!/8!)^5 - 5! + 3!. \\
58959 &:= 9 \times \sqrt{9^8} - 5 + 5. \\
58968 &:= ((\sqrt{9})!! + 8) \times (86 - 5). \\
59013 &:= 9^5 - 3!^{1+0!}. \\
59023 &:= 9^5 - 3! - 20. \\
59024 &:= 9^5 - 4! - (2 \times 0)! . \\
59025 &:= 9^5 - (5 - 2 + 0!)!. \\
59029 &:= \sqrt{(9 \times 9)^5} - 20. \\
59032 &:= 9^5 + 3 - 20. \\
59035 &:= 9^5 - 5 \times 3 + 0!. \\
59039 &:= -9 + 9^5 - (3 \times 0)! . \\
59041 &:= 9^5 - 4 \times (1 + 0!). \\
59042 &:= 9^5 - 4 \times 2 + 0!. \\
59044 &:= 9^5 - 4 - 4^0. \\
59046 &:= (\sqrt{9} + 6)^5 - 4 + 0!. \\
59050 &:= 9^5 + (50 \times 0)! . \\
59051 &:= 9^5 + \sqrt{5 - 1} \times 0!. \\
59059 &:= 9 + 9^5 + (5 \times 0)! . \\
59099 &:= \sqrt{9} \times \sqrt{9^9} + 50. \\
59144 &:= 9^5 + 4 \times 4! - 1. \\
59145 &:= 9^5 + 5! - 4! \times 1. \\
59159 &:= -9 + 9^5 + 5! - 1. \\
59284 &:= 9!/8 + (5! - \sqrt{4})^2. \\
59289 &:= 9 \times \sqrt{9^8} + 5! \times 2. \\
59295 &:= (\sqrt{9})! + 9^5 + 5! \times 2. \\
59433 &:= 9^5 + 4^3 \times 3!. \\
59469 &:= -\sqrt{9} + 9!/6! \times (5! - \sqrt{4}). \\
59529 &:= (\sqrt{9})!! + 9^5 - 5! \times 2. \\
59542 &:= (\sqrt{9})! + (5! + 5! + 4)^2. \\
59554 &:= 9^5 - 5! + 5^4. \\
59617 &:= 9!/7 + 6^5 + 1. \\
59619 &:= (-\sqrt{9} + 9!/6!) \times (5! - 1). \\
59635 &:= 9!/6 - 5 - 5! - 3!. \\
59637 &:= (9! - 7!)/(6!/5!) - 3. \\
59640 &:= 9!/6 - 5! - (4 - 0!)!. \\
59643 &:= \sqrt{(\sqrt{9} - 6!/5)^4} \times 3. \\
59647 &:= (9! - 7!)/6 + 5 + \sqrt{4}. \\
59664 &:= 9!/6 - 6! - 5! + 4!. \\
59767 &:= -(\sqrt{9})!! + 7 + 7! \times \sqrt{6!/5}. \\
59768 &:= -(\sqrt{9})!! + 8 + 7! \times \sqrt{6!/5}. \\
59769 &:= 9 + (9! - 7!)/6 + 5!. \\
59796 &:= -(\sqrt{9})!! + (\sqrt{9} + 7!) \times \sqrt{6!/5}. \\
59808 &:= ((\sqrt{9})!! - 8) \times (85 - 0!). \\
59940 &:= 9!/(\sqrt{9})! - 540. \\
59968 &:= 9!/(\sqrt{9})! - \sqrt{8^{6!/5!}}. \\
59983 &:= \sqrt{9^9} + 8! - 5!/3!. \\
60359 &:= 9!/6 - 5! - (3 \times 0)! . \\
60396 &:= 9!/(6 \times 6!) \times (3!! - 0!). \\
60457 &:= 7! \times \sqrt{6!/5} - 4! + 0!. \\
60459 &:= 9!/6 - 5 \times 4 - 0!. \\
60469 &:= (9! - 66)/(4 - 0!)!. \\
60475 &:= 7! \times \sqrt{6!/5} - 4 - 0!. \\
60491 &:= 9!/6 + \sqrt{(4 + 1)! + 0!}. \\
60492 &:= 9!/6 + 4!/2 \times 0!. \\
60493 &:= 9!/6 + 4 \times 3 + 0!. \\
60495 &:= 9!/6 + 5 \times (4 - 0!). \\
60498 &:= 9 \times (8!/6 + \sqrt{4} \times 0!). \\
60539 &:= 9!/6 + \sqrt{5 \times 3!!} - 0!. \\
60593 &:= 9!/6 + 5! - 3! - 0!. \\
60594 &:= 9!/6 + 5! - (4 - 0!)!. \\
60595 &:= 9!/6 - 5 + 5! \times 0!. \\
60596 &:= (9! + 6!)/6 - 5 + 0!. \\
60696 &:= 9!/6 + \sqrt{6^6} \times 0!. \\
61056 &:= 6^6 + 5!^{1+0!}. \\
61439 &:= (9 + 6) \times 4^{3!} - 1. \\
61589 &:= (-\sqrt{9} + \sqrt{8^6}) \times (5! + 1). \\
61599 &:= (\sqrt{9} + 9!)!/6^5 - 1. \\
61918 &:= (\sqrt{9})!! \times 86 - 1 - 1. \\
61958 &:= (\sqrt{9})! + \sqrt{8^6} \times (5! + 1). \\
62436 &:= (6! + 6) \times 43 \times 2. \\
62494 &:= -(\sqrt{9})! + (-6 + 4^4)^2. \\
62498 &:= (\sqrt{9} - 8)^6 \times 4 - 2. \\
62638 &:= 86 \times 6! + 3!! - 2. \\
62758 &:= 87 \times 6! + 5! - 2. \\
62997 &:= 9!/(\sqrt{9})! + (7! - 6)/2. \\
63468 &:= 86 \times (-6 + 4! + 3!!). \\
63485 &:= \sqrt{8^6} \times (5! + 4) - 3. \\
63504 &:= \sqrt{(6 + 5!)^4} \times (3 + 0!). \\
63529 &:= -9! + 653^2. \\
63648 &:= 8! + 6 \times (6^4 \times 3). \\
63990 &:= \sqrt{9} \times (-9 + 6!) \times 30. \\
64656 &:= 6^6 + 6! \times \sqrt{5^4}. \\
64728 &:= 87 \times (6! + (\sqrt{4^2})!). \\
64890 &:= (\sqrt{9})!!/8 \times (6! + 4^0). \\
65520 &:= (6 + 5!) \times 520. \\
65536 &:= (6/6 - 5)^{5+3}. \\
65856 &:= \sqrt{(8 + 6)^6} \times 5!/5. \\
65995 &:= (\sqrt{9})!! \times 96 - 5^5. \\
66528 &:= (8! + 6! - 6^5) \times 2. \\
66984 &:= 9 \times (8!/6 + 6!) + 4!. \\
67680 &:= 87 \times 6! + (6 + 0!)!. \\
67860 &:= 87 \times (6! + 60). \\
67986 &:= 9 \times ((8! + 7!)/6 - 6). \\
67995 &:= 9 \times (9 \times 7!/6 - 5). \\
68395 &:= (-\sqrt{9} + 8! + 6!) \times 5/3. \\
68400 &:= 8! + 6! \times (40 - 0!). \\
68496 &:= (9! + 8!)/6 + 6^4. \\
68800 &:= 8 \times 8600. \\
69024 &:= 96 \times ((4 + 2)! - 0!). \\
69120 &:= 96 \times (2 + 1 \times 0!)!!. \\
69121 &:= 96 \times (2 + 1)!! + 1. \\
69123 &:= 96 \times 3!! + 2 + 1. \\
69126 &:= 96 \times 6! + (2 + 1)!. \\
69129 &:= 9 + 96 \times (2 + 1)!. \\
69216 &:= 96 \times (6! + 2 - 1). \\
69240 &:= (\sqrt{9})!!/6 \times (4!^2 + 0!). \\
69312 &:= 96 \times (3!! + 2 \times 1). \\
69336 &:= 96 \times 6! + 3!^3. \\
69384 &:= 98 \times (6! - 4 \times 3). \\
69385 &:= (9! - 8!)/6 + 5^{3!}. \\
69693 &:= -\sqrt{9} + 96 \times (6 + 3!!). \\
69743 &:= 97 \times (6! - 4 + 3). \\
69744 &:= 97 \times 6! - 4 \times 4!. \\
69774 &:= ((\sqrt{9})!^7 - 7!/6)/4. \\
69795 &:= -9 \times (\sqrt{9} \times 7 - 6^5). \\
69835 &:= 98 \times 6! - 5 - 3!. \\
69864 &:= 98 \times 6! - 6! + 4!. \\
69872 &:= 98 \times (-7 + 6!) - 2. \\
69874 &:= -98 \times \left(7 - (\sqrt{\sqrt{6^4}})\right). \\
69903 &:= 9 \times (-9 + 6^{3!-0!}). \\
69930 &:= 9 \times (-(\sqrt{9})! + 6^{3!-0!}).
\end{aligned}$$

$$\begin{aligned}
69945 &:= -\sqrt{9} + 9 \times (6^5 - 4). \\
69954 &:= (\sqrt{9})! + 9 \times (6^5 - 4). \\
69957 &:= -\sqrt{9} + 97 \times 6! + 5!. \\
69975 &:= 9 \times ((\sqrt{9})! - 7 + 6^5). \\
69990 &:= (\sqrt{9})! + 9 \times (\sqrt{9})!^{6-0!}. \\
70538 &:= (8! - 7^5) \times 3 - 0!. \\
70560 &:= 7! \times (\sqrt{6!}/5 + 0! + 0!). \\
70993 &:= -(\sqrt{9})!^{(\sqrt{9})!} + 7^{3!} \times 0!. \\
71300 &:= (-7 + 3!)! \times 100. \\
71569 &:= (9! - 7 \times 6!)/5 + 1. \\
71999 &:= (\sqrt{9})!! \times (\sqrt{9} + 97) - 1. \\
72448 &:= 8 \times 7! - \sqrt{\sqrt{4^{4!}}} \times 2. \\
72559 &:= (9! - 75)/5 - 2. \\
72576 &:= 7 \times (7! + 6!/5) \times 2. \\
72578 &:= (8 + 7/7!)/5 + 2. \\
73294 &:= 9!/(7 - \sqrt{4}) + 3!! - 2. \\
73359 &:= -9 + (7!/5!)^3 - 3!. \\
73375 &:= 7 \times (-7! + 5^{3!}) - 3!. \\
73968 &:= -(-\sqrt{9} + 8)! + (7 \times 6)^3. \\
74183 &:= (-8 + 7^4) \times 31. \\
74496 &:= 97 \times (6! + 4! + 4!). \\
74549 &:= ((9! - 7!) \times 5 - 4!)/4!. \\
74904 &:= ((\sqrt{9})!! + 7^4) \times 4! \times 0!. \\
75597 &:= -\sqrt{9} + 7! \times 75/5. \\
75600 &:= 7! \times 6 \times 5/(0! + 0!)!. \\
75975 &:= (\sqrt{9} \times 7! + 75) \times 5. \\
76608 &:= -8! + 7^6 - 6! - 0!. \\
77378 &:= -8! + 7 \times 7 + 7^{3!}. \\
77398 &:= (-\sqrt{9} + 8)^7 - 7 - 3!. \\
77739 &:= (9!/(7+7) - 7) \times 3. \\
78049 &:= (\sqrt{9})!! - 8! + 7^{(4-0)!}. \\
78965 &:= (-\sqrt{9} + 8)^7 + 6! + 5!. \\
78975 &:= 9 \times 8775. \\
79374 &:= 9 \times 7 \times 7!/4 - 3!. \\
79380 &:= 9!/8 \times 7/(3 + 0!). \\
79524 &:= ((\sqrt{9})! \times (-7 + 54))^2. \\
79822 &:= -(\sqrt{9})!! + (8! - 7^2) \times 2. \\
79893 &:= 99 \times (87 + 3!). \\
80340 &:= 8! \times \sqrt{4} - 300. \\
80384 &:= 8! + 8! - 4^{3+0!}. \\
80448 &:= 8 \times (8!/4 - 4! \times 0!). \\
80468 &:= (8! - 86) \times \sqrt{4} \times 0!. \\
80496 &:= (9! + 8! - 6!)/(4 + 0!). \\
80520 &:= (8! - 5!/2) \times (0! + 0!). \\
80580 &:= 8! + 8! - 5!/(0! + 0!). \\
80633 &:= 8! \times 6/3 - 3! - 0!. \\
80725 &:= (8! + 7!/5!) \times 2 + 0!. \\
80800 &:= (8! + 80) \times (0! + 0!). \\
81327 &:= (8! + 7^3) \times 2 + 1. \\
82766 &:= (8! + \sqrt{7^6} + 6!) \times 2.
\end{aligned}$$

$$\begin{aligned}
82942 &:= (9 \times 8 \times 4)^2 - 2. \\
83349 &:= 9 \times ((8 - 4)! - 3)^3. \\
83449 &:= (9 + 8)^4 - 4! \times 3. \\
83456 &:= \sqrt{8^6} \times (5! + 43). \\
83494 &:= (9 + 8)^4 - 4! - 3. \\
83656 &:= -\sqrt{(8 + 6)^6} + 5! \times 3!. \\
84075 &:= (8 + 7^5) \times (4 + 0!). \\
84239 &:= (9 + 8)^4 + 3!! - 2. \\
84480 &:= 88 \times 4! \times 40. \\
84865 &:= 8! + 8! + \sqrt{65^4}. \\
84969 &:= 9 \times (\sqrt{9^8} + 6! \times 4). \\
85264 &:= ((8 + 65) \times 4)^2. \\
85293 &:= \sqrt{9^8} \times (5 \times 3 - 2). \\
85442 &:= (8! + (5 + \sqrt{4})^4) \times 2. \\
85465 &:= (-8 + 6!) \times 5! + \sqrt{5^4}. \\
85849 &:= \left( \sqrt{\sqrt{(\sqrt{9})!^8}} \times 8 + 5 \right)^{\sqrt{4}}. \\
86315 &:= -86 + 5! \times 3!! + 1. \\
86319 &:= -\sqrt{\sqrt{9^8} + 6! \times (3! - 1)!}. \\
86355 &:= 8 + 6! \times 5! - 53. \\
86396 &:= (-\sqrt{9} \times 8 + 6! \times 6!)/3!. \\
86456 &:= 8!/6! + 6! \times 5 \times 4!. \\
86490 &:= (\sqrt{9})!!/8 + 6! \times (4 + 0!)!. \\
86735 &:= -8 + \sqrt{7^6} + 5! \times 3!. \\
86996 &:= ((\sqrt{9})!! - \sqrt{9}) \times (8 + 6!)/6. \\
87364 &:= (8! \times (7 + 6) + 4!)/3!. \\
87366 &:= 8! \times (7 + 6)/6 + 3!. \\
87381 &:= (-8 + 8^7)/(3 + 1)!. \\
87384 &:= (-8 + 8^7)/4! + 3. \\
87595 &:= ((\sqrt{9})!! - 8 + 7^5) \times 5. \\
87843 &:= 8! + 8! + 7^4 \times 3. \\
87844 &:= 8! + (8 + 7!/4!)^{\sqrt{4}}. \\
88416 &:= 8! + 8! + 6^{4+1}. \\
88695 &:= -9 + 8! + 8! \times 6/5. \\
88704 &:= 88 \times 7!/(4 + 0!). \\
88705 &:= 88 \times 7!/5 + 0!. \\
89373 &:= (\sqrt{9} \times 8 + 7)^3 \times 3. \\
89478 &:= (9 \times (8 + 8!) - 7!)/4. \\
89484 &:= (9! - 8!/8)/4 + 4!. \\
89984 &:= -(\sqrt{9})!! + (9! - 8 \times 8)/4. \\
89994 &:= -(\sqrt{9})!! - (\sqrt{9})! + 9!/(8 - 4). \\
90144 &:= ((9!/4) - (4!^{1+0!})). \\
91430 &:= 9!/4 + 3!! - 10. \\
91433 &:= 9!/4 + 3!! - 3! - 1. \\
91434 &:= (9! - 4!)/4 + 3!! \times 1. \\
91438 &:= (9! - 8)/4 + 3!! \times 1. \\
91439 &:= (\sqrt{9})!! + (9! - 4)/(3 + 1). \\
91440 &:= 9!/4 + (-4 + 10)!. \\
91441 &:= 9!/4 + (4 - 1)!! + 1. \\
91442 &:= 9!/4 + \sqrt{4} + (2 + 1)!!.
\end{aligned}$$

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