Patterns in Semi-Selfie Numbers, **Zenodo**, Feb. 12, 2019, pp. 1-51,
http://doi.org/10.5281/zenodo.2563202

Patterns in Selfie and Semi-Selfie Numbers[1].

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Abstract

*Author studied many ways of writing **selfie numbers** [13], sometimes known by **wild narcissistic numbers**. There are numbers very much near to selfie-number, but are not selfie numbers. These types of numbers, referred as **semi-selfie numbers**, where numbers are written in terms of expressions with positive and negative signs having same digits on both sides of the expressions, except the power values. This paper brings interesting patterns with **selfie** and **semi-selfie** numbers. This work is combination of author's previous two works [7, 17].*

Contents

1 Number Patterns

In this section, we shall give examples of **number patterns** in different situations. For details are given in [21].

$$\begin{aligned}
\mathbf{16}^2 &:= 256\\
\mathbf{166}^2 &:= 27556\\
\mathbf{1666}^2 &:= 2775556\\
\mathbf{16666}^2 &:= 277755556\\
\mathbf{166666}^2 &:= 27777555556\\
\mathbf{1666666}^2 &:= 2777775555556\\
\mathbf{16666666}^2 &:= 277777755555556
\end{aligned}$$

[1]It is revised and enlarged version of author's previous works: *http://rgmia.org/papers/v18/v18a154.pdf* and *http://rgmia.org/papers/v20/v20a37.pdf* done in 2015 and 2017 respectively

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$$\mathbf{34}^2 := 1156$$
$$\mathbf{334}^2 := 111556$$
$$\mathbf{3334}^2 := 11115556$$
$$\mathbf{33334}^2 := 1111155556$$
$$\mathbf{333334}^2 := 111111555556$$
$$\mathbf{3333334}^2 := 11111115555556$$
$$\mathbf{33333334}^2 := 1111111155555556$$

$$\mathbf{43}^2 = 1849$$
$$\mathbf{433}^2 = 187489$$
$$\mathbf{4333}^2 = 18774889$$
$$\mathbf{43333}^2 = 1877748889$$
$$\mathbf{433333}^2 = 187777488889$$
$$\mathbf{4333333}^2 = 18777774888889$$
$$\mathbf{43333333}^2 = 1877777748888889$$

$$\mathbf{67}^2 := 4489$$
$$\mathbf{667}^2 := 444889$$
$$\mathbf{6667}^2 := 44448889$$
$$\mathbf{66667}^2 := 4444488889$$
$$\mathbf{666667}^2 := 444444888889$$
$$\mathbf{6666667}^2 := 44444448888889$$
$$\mathbf{66666667}^2 := 4444444488888889$$

$$\mathbf{7623} := 11 \times 9 \times 77$$
$$\mathbf{776223} := 111 \times 9 \times 777$$
$$\mathbf{77762223} := 1111 \times 9 \times 7777$$
$$\mathbf{7777622223} := 11111 \times 9 \times 77777$$
$$\mathbf{777776222223} := 111111 \times 9 \times 777777$$
$$\mathbf{77777762222223} := 1111111 \times 9 \times 7777777$$
$$\mathbf{7777777622222223} := 11111111 \times 9 \times 77777777$$
$$\mathbf{777777776222222223} := 11111111 \times 9 \times 777777777$$

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$$
\begin{aligned}
\mathbf{99} &= 98 + 1 \\
\mathbf{999} &= 987 + 12 \\
\mathbf{9999} &= 9876 + 123 \\
\mathbf{99999} &= 98765 + 1234 \\
\mathbf{999999} &= 987654 + 12345 \\
\mathbf{9999999} &= 9876543 + 123456 \\
\mathbf{99999999} &= 98765432 + 1234567 \\
\mathbf{999999999} &= 987654321 + 12345678 \\
\mathbf{9999999999} &= 9876543210 + 123456789
\end{aligned}
$$

Below are examples of number patterns written in terms of single letter *"a"*:

$$
\begin{aligned}
\mathbf{121} &= \mathbf{11 \times 11} & &:= (aa \times aa)/(a \times a) \\
\mathbf{12321} &= \mathbf{111 \times 111} & &:= (aaa \times aaa)/(a \times a) \\
\mathbf{1234321} &= \mathbf{1111 \times 1111} & &:= (aaaa \times aaaa)/(a \times a) \\
\mathbf{123454321} &= \mathbf{11111 \times 11111} & &:= (aaaaa \times aaaaa)/(a \times a) \\
\mathbf{12345654321} &= \mathbf{111111 \times 111111} & &:= (aaaaaa \times aaaaaa)/(a \times a) \\
\mathbf{1234567654321} &= \mathbf{1111111 \times 1111111} & &:= (aaaaaaa \times aaaaaaa)/(a \times a) \\
\mathbf{123456787654321} &= \mathbf{11111111 \times 11111111} & &:= (aaaaaaaa \times aaaaaaaa)/(a \times a) \\
\mathbf{12345678987654321} &= \mathbf{111111111 \times 111111111} & &:= (aaaaaaaaa \times aaaaaaaaa)/(a \times a).
\end{aligned}
$$

$$
\begin{aligned}
\mathbf{1331} &= \mathbf{11 \times 11 \times 11} & &:= aa \times aa \times aa/(a \times a \times a) \\
\mathbf{13431} &= \mathbf{11 \times 11 \times 111} & &:= aa \times aa \times aaa/(a \times a \times a) \\
\mathbf{134431} &= \mathbf{11 \times 11 \times 1111} & &:= aa \times aa \times aaaa/(a \times a \times a) \\
\mathbf{1344431} &= \mathbf{11 \times 11 \times 11111} & &:= aa \times aa \times aaaaa/(a \times a \times a) \\
\mathbf{13444431} &= \mathbf{11 \times 11 \times 111111} & &:= aa \times aa \times aaaaaa/(a \times a \times a) \\
\mathbf{134444431} &= \mathbf{11 \times 11 \times 1111111} & &:= aa \times aa \times aaaaaaa/(a \times a \times a) \\
\mathbf{1344444431} &= \mathbf{11 \times 11 \times 11111111} & &:= aa \times aa \times aaaaaaaa/(a \times a \times a) \\
\mathbf{13444444431} &= \mathbf{11 \times 11 \times 111111111} & &:= aa \times aa \times aaaaaaaaa/(a \times a \times a).
\end{aligned}
$$

$$
\begin{aligned}
\mathbf{1001} &= \mathbf{13 \times 77} & &:= aa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{10101} &= \mathbf{13 \times 777} & &:= aaa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{101101} &= \mathbf{13 \times 7777} & &:= aaaa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{1011101} &= \mathbf{13 \times 77777} & &:= aaaaa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{10111101} &= \mathbf{13 \times 777777} & &:= aaaaaa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{101111101} &= \mathbf{13 \times 7777777} & &:= aaaaaaa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{1011111101} &= \mathbf{13 \times 77777777} & &:= aaaaaaaa \times (aaaa - aaa + a)/(aa \times a) \\
\mathbf{10111111101} &= \mathbf{13 \times 777777777} & &:= aaaaaaaaa \times (aaaa - aaa + a)/(aa \times a).
\end{aligned}
$$

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The letter "a" appearing in above three examples is such that $a \in \{1,2,3,4,5,6,7,8,9\}$, i.e., for any value of "a" from 1 to 9, the results remains the same. Also,

$$aaa = 10^2 \times a + 10 \times a + a, \quad a \in \{1,2,3,4,5,6,7,8,9\} \text{ etc.}$$

A general study of numbers in terms of letter "a" is given in [19, 20].

2 Selfie Numbers

Recently, the author studied different ways of expressing numbers in such a way that both sides are with same digits. One side is with number, and another side is an expression formed by same digits with some operations. These types of numbers we call **selfie numbers**. Some times they are called as **wild narcissistic numbers**. These numbers are represented by their own digits by use of certain operations. Subsections below give different ways of writing **selfie numbers**. See below some examples:

$$\begin{aligned}
\mathbf{936} &:= (\sqrt{9})!^3 + 6! &&= 6! + (3!)^{\sqrt{9}} \\
\mathbf{1296} &:= \sqrt{(1+2)!^9/6} &&= 6^{(\sqrt{9}+2-1)} \\
\mathbf{2896} &:= 2 \times (8 + (\sqrt{9})!! + 6!) &&= (6! + (\sqrt{9})!! + 8) \times 2 \\
\mathbf{331779} &:= 3 + (31-7)^{\sqrt{7+9}} &&= \sqrt{9} + (7 \times 7 - 1)^3 \times 3 \\
\mathbf{342995} &:= (3^4 - 2 - 9)^{\sqrt{9}} - 5 &&= -5 + (-9 + 9^2 - \sqrt{4})^3 \\
\mathbf{759375} &:= (-7 + 59 - 37)^5 &&= (5+7+3)^{\sqrt{9}-5+7} \\
\mathbf{759381} &:= 7 + (5 \times \sqrt{9})^{-3+8} - 1 &&= -1 + (8 \times 3 - 9)^5 + 7
\end{aligned}$$

Examples given above are with **factorial** and **square-root** [11, 12]. First column numbers are in **digit's order** and second columns are in **reverse order of digits**. For details refer author's work [4, 5, 6, 8, 9, 10]. Still, one can have interesting results just with **factorial** [10]. See below:

$$\begin{aligned}
\mathbf{1463} &= -1! + 4! + 6! + 3!! \\
\mathbf{10077} &= -1! - 0! - 0! + 7! + 7! \\
\mathbf{40585} &= 4! + 0! + 5! + 8! + 5! \\
\mathbf{80518} &= 8! - 0! - 5! - 1! + 8! \\
\mathbf{317489} &= -3! - 1! - 7! - 4! - 8! + 9! \\
\mathbf{352797} &= -3! + 5 - 2! - 7! + 9! - 7! \\
\mathbf{357592} &= -3! - 5! - 7! - 5! + 9! - 2! \\
\mathbf{357941} &= 3! + 5! - 7! + 9! - 4! - 1!
\end{aligned}$$

$$\begin{aligned}
\mathbf{361469} &= 3! - 6! - 1! + 4! - 6! + 9! \\
\mathbf{364292} &= 3!! + 6! - 4! - 2! + 9! - 2! \\
\mathbf{397584} &= -3!! + 9! - 7! + 5! + 8! + 4! \\
\mathbf{398173} &= 3! + 9! + 8! + 1! - 7! + 3! \\
\mathbf{408937} &= -4! + 0! + 8! + 9! + 3!! + 7! \\
\mathbf{715799} &= -7! - 1! + 5! - 7! + 9! + 9! \\
\mathbf{720599} &= -7! - 2! + 0! - 5! + 9! + 9!
\end{aligned}$$

$$\begin{aligned}
\mathbf{145} &= 1! + 4! + 5! \\
\mathbf{733} &= 7 + 3!! + 3! \\
\mathbf{5177} &= 5! + 17 + 7!
\end{aligned}$$

$$\begin{aligned}
\mathbf{363239} &= 36 + 323 + 9! \\
\mathbf{363269} &= 363 + 26 + 9! \\
\mathbf{403199} &= 40319 + 9!.
\end{aligned}$$

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More studies and summary of work on numbers in different situations, refer author's work [13, 14, 15, 18].

2.1 Semi-Selfie Numbers

There are numbers very much near to **selfie-number**, but are not **selfie numbers**. These types of numbers, we refer as **semi-selfie numbers**, where the numbers are written in terms of expressions with positive and negative signs having same digits on both sides, except the power values. See below some examples in different situations.

$$\begin{aligned}
\mathbf{88209} &:= (88+209)^2\\
\mathbf{82369} &:= (-82+369)^2\\
\mathbf{238328} &:= (23+8+3+28)^3\\
\mathbf{250047} &:= (2+50+04+7)^3\\
\mathbf{357911} &:= (3+57+9+1+1)^3\\
\mathbf{373248} &:= (37+3+24+8)^3\\
\mathbf{390625} &:= (3+9+06+2+5)^4\\
\mathbf{431649} &:= (4+3+1+649)^2\\
\mathbf{1002001} &:= (1002-001)^2\\
\mathbf{1162084} &:= (1162-084)^2\\
\mathbf{1201216} &:= (-120+1216)^2\\
\mathbf{1656369} &:= (1656-369)^2\\
\mathbf{1860496} &:= (1860-496)^2\\
\mathbf{7441984} &:= (744+1984)^2\\
\mathbf{23804641} &:= (238+04641)^2\\
\mathbf{28005264} &:= (28+005264)^2
\end{aligned}$$

$$\begin{aligned}
\mathbf{57289761} &:= (5-7+2+89-7+6-1)^4\\
&:= (57+2-8+97-61)^4\\
&:= (-5-72+89+76-1)^4\\
\mathbf{57592921} &:= (5+7592-9+2-1)^2\\
\mathbf{57623281} &:= (-5+7623-28+1)^2\\
\mathbf{57653649} &:= (-5+7653-64+9)^2\\
\mathbf{57775201} &:= (5+77+7520-1)^2\\
\mathbf{57927321} &:= (5+7927-321)^2\\
\mathbf{100020001} &:= (10002-0001)^2\\
\mathbf{123121216} &:= (12312-1216)^2\\
\mathbf{300814336} &:= (3008+14336)^2\\
\mathbf{330621489} &:= (-3306+21489)^2\\
\mathbf{493817284} &:= (4938+17284)^2
\end{aligned}$$

$$\begin{aligned}
\mathbf{16777216} &:= (16+7+7+7+21+6)^4 &&= (16-7-7+7+2-1+6)^6\\
&&&= (16-7+7+7-21+6)^8\\
&&&= (16+7-7-7+2-1-6)^{12}\\
&&&= (16-7-7+7-2+1-6)^{24}\\
\mathbf{17210368} &:= (1+7+2+1+03+6+8)^5 &&= (17+2+10-3-6+8)^5\\
\mathbf{17779581} &:= (1+77+7+95+81)^3 &&= (177+7-9+5+81)^3\\
\mathbf{17984728} &:= (179+8+47+28)^3 &&= (179+84-7-2+8)^3\\
\mathbf{20151121} &:= (20+15+11+21)^4 &&= (-2-01-51+121)^4
\end{aligned}$$

More detailed study can be seen in author's work [22]. The aim of this work is write **patterns in selfie and semi-selfie numbers**. This we have done in following section. This work is revised and combined version of author's previous two papers [7, 17].

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3 Patterns in Selfie Numbers

Numbers extended with same properties multiplying by zero, we consider as **patterns in numbers**. Few examples of this kind are studied long back in 1966 by Madachy [3], page 174-175. See below:

$$\mathbf{34425} := 3^4 \times 425$$
$$\mathbf{344250} := 3^4 \times 4250$$
$$\mathbf{3442500} := 3^4 \times 42500$$

$$\mathbf{312325} := 31^2 \times 325$$
$$\mathbf{3123250} := 31^2 \times 3250$$
$$\mathbf{31232500} := 31^2 \times 32500$$

Based on above two examples, below are patterns in selfie-numbers derived from the work on selfie-numbers. The results are up to 6 digits numbers. Work on 7 digits onward, shall be dealt elsewhere.

1.
$$\mathbf{1285} := (1+2^8) \times 5$$
$$\mathbf{12850} := (1+2^8) \times 50$$
$$\mathbf{128500} := (1+2^8) \times 500$$

2.
$$\mathbf{3645} := 3^{\sqrt{\sqrt{6^4}}} \times 5$$
$$\mathbf{36450} := 3^{\sqrt{\sqrt{6^4}}} \times 50$$
$$\mathbf{364500} := 3^{\sqrt{\sqrt{6^4}}} \times 500$$

3.
$$\mathbf{3685} := (3^6+8) \times 5$$
$$\mathbf{36850} := (3^6+8) \times 50$$
$$\mathbf{368500} := (3^6+8) \times 500$$

4.
$$\mathbf{5184} := \sqrt{(5+1)^8} \times 4$$
$$\mathbf{51840} := \sqrt{(5+1)^8} \times 40$$
$$\mathbf{518400} := \sqrt{(5+1)^8} \times 400$$

5.
$$\mathbf{6455} := (6^4-5) \times 5$$
$$\mathbf{64550} := (6^4-5) \times 50$$
$$\mathbf{645500} := (6^4-5) \times 500$$

6.
$$\mathbf{6495} := (6^4+\sqrt{9}) \times 5$$
$$\mathbf{64950} := (6^4+\sqrt{9}) \times 50$$
$$\mathbf{649500} := (6^4+\sqrt{9}) \times 500$$

7.
$$\mathbf{8192} := 8^{1+\sqrt{9}} \times 2$$
$$\mathbf{81920} := 8^{1+\sqrt{9}} \times 20$$
$$\mathbf{819200} := 8^{1+\sqrt{9}} \times 200$$

8.
$$\mathbf{11495} := \sqrt{11^4} \times 95$$
$$\mathbf{114950} := \sqrt{11^4} \times 950$$
$$\mathbf{1149500} := \sqrt{11^4} \times 9500$$

9.
$$\mathbf{14641} := (1+4+6)^4 \times 1$$
$$\mathbf{146410} := (1+4+6)^4 \times 10$$
$$\mathbf{1464100} := (1+4+6)^4 \times 100$$

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10.

$$\mathbf{15552} := (1^5+5)^5 \times 2$$
$$\mathbf{155520} := (1^5+5)^5 \times 20$$
$$\mathbf{1555200} := (1^5+5)^5 \times 200$$

11.

$$\mathbf{15585} := 1 \times (5^5-8) \times 5$$
$$\mathbf{155850} := 1 \times (5^5-8) \times 50$$
$$\mathbf{1558500} := 1 \times (5^5-8) \times 500$$

12.

$$\mathbf{16384} := \sqrt{\sqrt{(1+63)^8}} \times 4$$
$$\mathbf{163840} := \sqrt{\sqrt{(1+63)^8}} \times 40$$
$$\mathbf{1638400} := \sqrt{\sqrt{(1+63)^8}} \times 400$$

13.

$$\mathbf{16807} := \sqrt{(1+6)^8} \times 07$$
$$\mathbf{168070} := \sqrt{(1+6)^8} \times 070$$
$$\mathbf{1680700} := \sqrt{(1+6)^8} \times 0700$$

14.

$$\mathbf{19683} := 1 \times (9-6)^8 \times 3$$
$$\mathbf{196830} := 1 \times (9-6)^8 \times 30$$
$$\mathbf{1968300} := 1 \times (9-6)^8 \times 300$$

15.

$$\mathbf{23328} := (2 \times 3^3)^2 \times 8$$
$$\mathbf{233280} := (2 \times 3^3)^2 \times 80$$
$$\mathbf{2332800} := (2 \times 3^3)^2 \times 800$$

16.

$$\mathbf{24576} := (-2+4)^{5+7} \times 6$$
$$\mathbf{245760} := (-2+4)^{5+7} \times 60$$
$$\mathbf{2457600} := (-2+4)^{5+7} \times 600$$

17.

$$\mathbf{28224} := (2+82)^2 \times 4$$
$$\mathbf{282240} := (2+82)^2 \times 40$$
$$\mathbf{2822400} := (2+82)^2 \times 400$$

18.

$$\mathbf{29435} := \sqrt{29^4} \times 35$$
$$\mathbf{294350} := \sqrt{29^4} \times 350$$
$$\mathbf{2943500} := \sqrt{29^4} \times 3500$$

19.

$$\mathbf{32768} := \sqrt{(3^2+7)^6} \times 8$$
$$\mathbf{327680} := \sqrt{(3^2+7)^6} \times 80$$
$$\mathbf{3276800} := \sqrt{(3^2+7)^6} \times 800$$

20.

$$\mathbf{34295} := (3+4^2)^{\sqrt{9}} \times 5$$
$$\mathbf{342950} := (3+4^2)^{\sqrt{9}} \times 50$$
$$\mathbf{3429500} := (3+4^2)^{\sqrt{9}} \times 500$$

21.

$$\mathbf{34425} := 3^4 \times 425$$
$$\mathbf{344250} := 3^4 \times 4250$$
$$\mathbf{3442500} := 3^4 \times 42500$$

22.

$$\mathbf{34445} := (3^4+\sqrt{4})^{\sqrt{4}} \times 5$$
$$\mathbf{344450} := (3^4+\sqrt{4})^{\sqrt{4}} \times 50$$
$$\mathbf{3444500} := (3^4+\sqrt{4})^{\sqrt{4}} \times 500$$

23.

$$\mathbf{34992} := 3 \times (\sqrt{4} \times 9)^{\sqrt{9}} \times 2$$
$$\mathbf{349920} := 3 \times (\sqrt{4} \times 9)^{\sqrt{9}} \times 20$$
$$\mathbf{3499200} := 3 \times (\sqrt{4} \times 9)^{\sqrt{9}} \times 200$$

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24.

$$\mathbf{35721} := 3^5 \times 7 \times 21$$
$$\mathbf{357210} := 3^5 \times 7 \times 210$$
$$\mathbf{3572100} := 3^5 \times 7 \times 2100$$

25.

$$\mathbf{36864} := 3 \times 6 \times \sqrt{8^6} \times 4$$
$$\mathbf{368640} := 3 \times 6 \times \sqrt{8^6} \times 40$$
$$\mathbf{3686400} := 3 \times 6 \times \sqrt{8^6} \times 400$$

26.

$$\mathbf{37485} := \sqrt{(3 \times 7)^4} \times 85$$
$$\mathbf{374850} := \sqrt{(3 \times 7)^4} \times 850$$
$$\mathbf{3748500} := \sqrt{(3 \times 7)^4} \times 8500$$

27.

$$\mathbf{38475} := \sqrt{3^8} \times 475$$
$$\mathbf{384750} := \sqrt{3^8} \times 4750$$
$$\mathbf{3847500} := \sqrt{3^8} \times 47500$$

28.

$$\mathbf{38856} := (3^8 - 85) \times 6$$
$$\mathbf{388560} := (3^8 - 85) \times 60$$
$$\mathbf{3885600} := (3^8 - 85) \times 600$$

29.

$$\mathbf{39342} := (3^9 - 3 \times 4) \times 2$$
$$\mathbf{393420} := (3^9 - 3 \times 4) \times 20$$
$$\mathbf{3934200} := (3^9 - 3 \times 4) \times 200$$

30.

$$\mathbf{39366} := 3 \times \sqrt{9} \times 3^6 \times 6$$
$$\mathbf{393660} := 3 \times \sqrt{9} \times 3^6 \times 60$$
$$\mathbf{3936600} := 3 \times \sqrt{9} \times 3^6 \times 600$$

31.

$$\mathbf{39372} := (3 + 9 \times 3^7) \times 2$$
$$\mathbf{393720} := (3 + 9 \times 3^7) \times 20$$
$$\mathbf{3937200} := (3 + 9 \times 3^7) \times 200$$

32.

$$\mathbf{39382} := ((3 \times 9)^3 + 8) \times 2$$
$$\mathbf{393820} := ((3 \times 9)^3 + 8) \times 20$$
$$\mathbf{3938200} := ((3 \times 9)^3 + 8) \times 200$$

33.

$$\mathbf{43775} := (4 \times 3^7 + 7) \times 5$$
$$\mathbf{437750} := (4 \times 3^7 + 7) \times 50$$
$$\mathbf{4377500} := (4 \times 3^7 + 7) \times 500$$

34.

$$\mathbf{45927} := ((4 + 5) \times 9)^2 \times 7$$
$$\mathbf{459270} := ((4 + 5) \times 9)^2 \times 70$$
$$\mathbf{4592700} := ((4 + 5) \times 9)^2 \times 700$$

35.

$$\mathbf{45945} := (4^5 - \sqrt{9}) \times 45$$
$$\mathbf{459450} := (4^5 - \sqrt{9}) \times 450$$
$$\mathbf{4594500} := (4^5 - \sqrt{9}) \times 4500$$

36.

$$\mathbf{46688} := (4 + 6^6/8) \times 8$$
$$\mathbf{466880} := (4 + 6^6/8) \times 80$$
$$\mathbf{4668800} := (4 + 6^6/8) \times 800$$

37.

$$\mathbf{49928} := (-\sqrt{4} + 9 \times 9)^2 \times 8$$
$$\mathbf{499280} := (-\sqrt{4} + 9 \times 9)^2 \times 80$$
$$\mathbf{4992800} := (-\sqrt{4} + 9 \times 9)^2 \times 800$$

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38.

$$\mathbf{52488} := (5-2\times 4)^8 \times 8$$
$$\mathbf{524880} := (5-2\times 4)^8 \times 80$$
$$\mathbf{5248800} := (5-2\times 4)^8 \times 800$$

39.

$$\mathbf{52822} := \sqrt{(5+2)^8} \times 22$$
$$\mathbf{528220} := \sqrt{(5+2)^8} \times 220$$
$$\mathbf{5282200} := \sqrt{(5+2)^8} \times 2200$$

40.

$$\mathbf{54675} := \sqrt{(5+4)^6} \times 75$$
$$\mathbf{546750} := \sqrt{(5+4)^6} \times 750$$
$$\mathbf{5467500} := \sqrt{(5+4)^6} \times 7500$$

41.

$$\mathbf{56644} := (\sqrt{5^6}-6)^{\sqrt{4}} \times 4$$
$$\mathbf{566440} := (\sqrt{5^6}-6)^{\sqrt{4}} \times 40$$
$$\mathbf{5664400} := (\sqrt{5^6}-6)^{\sqrt{4}} \times 400$$

42.

$$\mathbf{69984} := 6^{\sqrt{9}} \times \sqrt{\sqrt{9^8}} \times 4$$
$$\mathbf{699840} := 6^{\sqrt{9}} \times \sqrt{\sqrt{9^8}} \times 40$$
$$\mathbf{6998400} := 6^{\sqrt{9}} \times \sqrt{\sqrt{9^8}} \times 400$$

43.

$$\mathbf{72688} := 7 \times (2+\sqrt{6^8}) \times 8$$
$$\mathbf{726880} := 7 \times (2+\sqrt{6^8}) \times 80$$
$$\mathbf{7268800} := 7 \times (2+\sqrt{6^8}) \times 800$$

44.

$$\mathbf{74431} := 7^{\sqrt{4\times 4}} \times 31$$
$$\mathbf{744310} := 7^{\sqrt{4\times 4}} \times 310$$
$$\mathbf{7443100} := 7^{\sqrt{4\times 4}} \times 3100$$

45.

$$\mathbf{82944} := \sqrt{(8\times 2\times 9)^4} \times 4$$
$$\mathbf{829440} := \sqrt{(8\times 2\times 9)^4} \times 40$$
$$\mathbf{8294400} := \sqrt{(8\times 2\times 9)^4} \times 400$$

46.

$$\mathbf{98415} := 9^{8-4} \times 15$$
$$\mathbf{984150} := 9^{8-4} \times 150$$
$$\mathbf{9841500} := 9^{8-4} \times 1500$$

47.

$$\mathbf{102487} := \sqrt{(10+2/\sqrt{4})^8} \times 7$$
$$\mathbf{1024870} := \sqrt{(10+2/\sqrt{4})^8} \times 70$$
$$\mathbf{10248700} := \sqrt{(10+2/\sqrt{4})^8} \times 700$$

48.

$$\mathbf{104976} := (10-\sqrt{4}) \times \sqrt{9^7} \times 6$$
$$\mathbf{1049760} := (10-\sqrt{4}) \times \sqrt{9^7} \times 60$$
$$\mathbf{10497600} := (10-\sqrt{4}) \times \sqrt{9^7} \times 600$$

49.

$$\mathbf{106929} := (106+\sqrt{9})^2 \times 9$$
$$\mathbf{1069290} := (106+\sqrt{9})^2 \times 90$$
$$\mathbf{10692900} := (106+\sqrt{9})^2 \times 900$$

50.

$$\mathbf{116645} := 1 \times (1+6^6/\sqrt{4}) \times 5$$
$$\mathbf{1166450} := 1 \times (1+6^6/\sqrt{4}) \times 50$$
$$\mathbf{11664500} := 1 \times (1+6^6/\sqrt{4}) \times 500$$

51.

$$\mathbf{117128} := 11^{7-1-2} \times 8$$
$$\mathbf{1171280} := 11^{7-1-2} \times 80$$
$$\mathbf{11712800} := 11^{7-1-2} \times 800$$

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52.

$$\mathbf{117396} := (-117 + 3^9) \times 6$$
$$\mathbf{1173960} := (-117 + 3^9) \times 60$$
$$\mathbf{11739600} := (-117 + 3^9) \times 600$$

53.

$$\mathbf{117655} := (1 + (1 + 7^6)/5) \times 5$$
$$\mathbf{1176550} := (1 + (1 + 7^6)/5) \times 50$$
$$\mathbf{11765500} := (1 + (1 + 7^6)/5) \times 500$$

54.

$$\mathbf{117996} := 1 \times (-17 + \sqrt{9^9}) \times 6$$
$$\mathbf{1179960} := 1 \times (-17 + \sqrt{9^9}) \times 60$$
$$\mathbf{11799600} := 1 \times (-17 + \sqrt{9^9}) \times 600$$

55.

$$\mathbf{124386} := (12^4 + 3 - 8) \times 6$$
$$\mathbf{1243860} := (12^4 + 3 - 8) \times 60$$
$$\mathbf{12438600} := (12^4 + 3 - 8) \times 600$$

56.

$$\mathbf{124413} := (12^4 \times \sqrt{4} - 1) \times 3$$
$$\mathbf{1244130} := (12^4 \times \sqrt{4} - 1) \times 30$$
$$\mathbf{12441300} := (12^4 \times \sqrt{4} - 1) \times 300$$

57.

$$\mathbf{124852} := \sqrt{(1 - 2 \times 4)^8} \times 52$$
$$\mathbf{1248520} := \sqrt{(1 - 2 \times 4)^8} \times 520$$
$$\mathbf{12485200} := \sqrt{(1 - 2 \times 4)^8} \times 5200$$

58.

$$\mathbf{129375} := (12^{\sqrt{9}} - 3) \times 75$$
$$\mathbf{1293750} := (12^{\sqrt{9}} - 3) \times 750$$
$$\mathbf{12937500} := (12^{\sqrt{9}} - 3) \times 7500$$

59.

$$\mathbf{131072} := (1 + 3)^{1+07} \times 2$$
$$\mathbf{1310720} := (1 + 3)^{1+07} \times 20$$
$$\mathbf{13107200} := (1 + 3)^{1+07} \times 200$$

60.

$$\mathbf{134456} := 1 \times (3 + 4)^4 \times 56$$
$$\mathbf{1344560} := 1 \times (3 + 4)^4 \times 560$$
$$\mathbf{13445600} := 1 \times (3 + 4)^4 \times 5600$$

61.

$$\mathbf{136462} := (\sqrt{13^6} + 4) \times 62$$
$$\mathbf{1364620} := (\sqrt{13^6} + 4) \times 620$$
$$\mathbf{13646200} := (\sqrt{13^6} + 4) \times 6200$$

62.

$$\mathbf{136857} := \sqrt{(13 - 6)^8} \times 57$$
$$\mathbf{1368570} := \sqrt{(13 - 6)^8} \times 570$$
$$\mathbf{13685700} := \sqrt{(13 - 6)^8} \times 5700$$

63.

$$\mathbf{137979} := (1 + (3^7 + \sqrt{9}) \times 7) \times 9$$
$$\mathbf{1379790} := (1 + (3^7 + \sqrt{9}) \times 7) \times 90$$
$$\mathbf{13797900} := (1 + (3^7 + \sqrt{9}) \times 7) \times 900$$

64.

$$\mathbf{138915} := (13 + 8)^{\sqrt{9}} \times 15$$
$$\mathbf{1389150} := (13 + 8)^{\sqrt{9}} \times 150$$
$$\mathbf{13891500} := (13 + 8)^{\sqrt{9}} \times 1500$$

65.

$$\mathbf{139953} := (((1 + 3) \times 9)^{\sqrt{9}} - 5) \times 3$$
$$\mathbf{1399530} := (((1 + 3) \times 9)^{\sqrt{9}} - 5) \times 30$$
$$\mathbf{13995300} := (((1 + 3) \times 9)^{\sqrt{9}} - 5) \times 300$$

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66.

$$\mathbf{146461} := (1^4+6)^4 \times 61$$
$$\mathbf{1464610} := (1^4+6)^4 \times 610$$
$$\mathbf{14646100} := (1^4+6)^4 \times 6100$$

67.

$$\mathbf{147249} := (1+4^7-24) \times 9$$
$$\mathbf{1472490} := (1+4^7-24) \times 90$$
$$\mathbf{14724900} := (1+4^7-24) \times 900$$

68.

$$\mathbf{147429} := (-1+4^7-4/2) \times 9$$
$$\mathbf{1474290} := (-1+4^7-4/2) \times 90$$
$$\mathbf{14742900} := (-1+4^7-4/2) \times 900$$

69.

$$\mathbf{147519} := (1+4^7+5+1) \times 9$$
$$\mathbf{1475190} := (1+4^7+5+1) \times 90$$
$$\mathbf{14751900} := (1+4^7+5+1) \times 900$$

70.

$$\mathbf{148862} := \sqrt{\sqrt{(1+48)^8}} \times 62$$
$$\mathbf{1488620} := \sqrt{\sqrt{(1+48)^8}} \times 620$$
$$\mathbf{14886200} := \sqrt{\sqrt{(1+48)^8}} \times 6200$$

71.

$$\mathbf{148945} := ((-1+4\times 8)^{\sqrt{9}} - \sqrt{4}) \times 5$$
$$\mathbf{1489450} := ((-1+4\times 8)^{\sqrt{9}} - \sqrt{4}) \times 50$$
$$\mathbf{14894500} := ((-1+4\times 8)^{\sqrt{9}} - \sqrt{4}) \times 500$$

72.

$$\mathbf{156225} := (-1+(5^6-2)\times 2) \times 5$$
$$\mathbf{1562250} := (-1+(5^6-2)\times 2) \times 50$$
$$\mathbf{15622500} := (-1+(5^6-2)\times 2) \times 500$$

73.

$$\mathbf{156235} := 1 \times (5^6 \times 2 - 3) \times 5$$
$$\mathbf{1562350} := 1 \times (5^6 \times 2 - 3) \times 50$$
$$\mathbf{15623500} := 1 \times (5^6 \times 2 - 3) \times 500$$

74.

$$\mathbf{156245} := (-1+5^6 \times (-2+4)) \times 5$$
$$\mathbf{1562450} := (-1+5^6 \times (-2+4)) \times 50$$
$$\mathbf{15624500} := (-1+5^6 \times (-2+4)) \times 500$$

75.

$$\mathbf{156251} := (1+5^6 \times 2 \times 5) \times 1$$
$$\mathbf{1562510} := (1+5^6 \times 2 \times 5) \times 10$$
$$\mathbf{15625100} := (1+5^6 \times 2 \times 5) \times 100$$

76.

$$\mathbf{156275} := ((-1+5^6) \times 2 + 7) \times 5$$
$$\mathbf{1562750} := ((-1+5^6) \times 2 + 7) \times 50$$
$$\mathbf{15627500} := ((-1+5^6) \times 2 + 7) \times 500$$

77.

$$\mathbf{156285} := (-1+5^6 \times 2 + 8) \times 5$$
$$\mathbf{1562850} := (-1+5^6 \times 2 + 8) \times 50$$
$$\mathbf{15628500} := (-1+5^6 \times 2 + 8) \times 500$$

78.

$$\mathbf{156295} := (1 \times 5^6 \times 2 + 9) \times 5$$
$$\mathbf{1562950} := (1 \times 5^6 \times 2 + 9) \times 50$$
$$\mathbf{15629500} := (1 \times 5^6 \times 2 + 9) \times 500$$

79.

$$\mathbf{158466} := (15-8)^4 \times 66$$
$$\mathbf{1584660} := (15-8)^4 \times 660$$
$$\mathbf{15846600} := (15-8)^4 \times 6600$$

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80.

$$\mathbf{158499} := (1+\sqrt{(5\times 8)^4})\times 99$$
$$\mathbf{1584990} := (1+\sqrt{(5\times 8)^4})\times 990$$
$$\mathbf{15849900} := (1+\sqrt{(5\times 8)^4})\times 9900$$

81.

$$\mathbf{160867} := \sqrt{(1+6)^{08}}\times 67$$
$$\mathbf{1608670} := \sqrt{(1+6)^{08}}\times 670$$
$$\mathbf{16086700} := \sqrt{(1+6)^{08}}\times 6700$$

82.

$$\mathbf{161051} := (1^6+10)^5\times 1$$
$$\mathbf{1610510} := (1^6+10)^5\times 10$$
$$\mathbf{16105100} := (1^6+10)^5\times 100$$

83.

$$\mathbf{163297} := 1+6^{3+2}\times\sqrt{9}\times 7$$
$$\mathbf{1632970} := 1+6^{3+2}\times\sqrt{9}\times 70$$
$$\mathbf{16329700} := 1+6^{3+2}\times\sqrt{9}\times 700$$

84.

$$\mathbf{163835} := (-1+(-6+38)^3)\times 5$$
$$\mathbf{1638350} := (-1+(-6+38)^3)\times 50$$
$$\mathbf{16383500} := (-1+(-6+38)^3)\times 500$$

85.

$$\mathbf{163855} := (1\times 6-3+8^5)\times 5$$
$$\mathbf{1638550} := (1\times 6-3+8^5)\times 50$$
$$\mathbf{16385500} := (1\times 6-3+8^5)\times 500$$

86.

$$\mathbf{163875} := (16^3\times 8+7)\times 5$$
$$\mathbf{1638750} := (16^3\times 8+7)\times 50$$
$$\mathbf{16387500} := (16^3\times 8+7)\times 500$$

87.

$$\mathbf{165888} := \sqrt{(\sqrt{16}\times(-5+8))^8}\times 8$$
$$\mathbf{1658880} := \sqrt{(\sqrt{16}\times(-5+8))^8}\times 80$$
$$\mathbf{16588800} := \sqrt{(\sqrt{16}\times(-5+8))^8}\times 800$$

88.

$$\mathbf{167286} := (167^2-8)\times 6$$
$$\mathbf{1672860} := (167^2-8)\times 60$$
$$\mathbf{16728600} := (167^2-8)\times 600$$

89.

$$\mathbf{170471} := (1\times 7^{04})\times 71$$
$$\mathbf{1704710} := (1\times 7^{04})\times 710$$
$$\mathbf{17047100} := (1\times 7^{04})\times 7100$$

90.

$$\mathbf{172872} := 1\times(7^{\sqrt{2\times 8}})\times 72$$
$$\mathbf{1728720} := 1\times(7^{\sqrt{2\times 8}})\times 720$$
$$\mathbf{17287200} := 1\times(7^{\sqrt{2\times 8}})\times 7200$$

91.

$$\mathbf{175232} := (-1+75)^2\times 32$$
$$\mathbf{1752320} := (-1+75)^2\times 320$$
$$\mathbf{17523200} := (-1+75)^2\times 3200$$

92.

$$\mathbf{175446} := \sqrt{(175-4)^4}\times 6$$
$$\mathbf{1754460} := \sqrt{(175-4)^4}\times 60$$
$$\mathbf{17544600} := \sqrt{(175-4)^4}\times 600$$

93.

$$\mathbf{177674} := 1\times 7\times\sqrt{7^6}\times 74$$
$$\mathbf{1776740} := 1\times 7\times\sqrt{7^6}\times 740$$
$$\mathbf{17767400} := 1\times 7\times\sqrt{7^6}\times 7400$$

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94.

$$\mathbf{179469} := (17 \times \sqrt{9})^{\sqrt{4}} \times 69$$
$$\mathbf{1794690} := (17 \times \sqrt{9})^{\sqrt{4}} \times 690$$
$$\mathbf{17946900} := (17 \times \sqrt{9})^{\sqrt{4}} \times 6900$$

95.

$$\mathbf{181447} := (1 - 81 \times \sqrt{4})^{\sqrt{4}} \times 7$$
$$\mathbf{1814470} := (1 - 81 \times \sqrt{4})^{\sqrt{4}} \times 70$$
$$\mathbf{18144700} := (1 - 81 \times \sqrt{4})^{\sqrt{4}} \times 700$$

96.

$$\mathbf{182476} := (1 + 8 - 2)^4 \times 76$$
$$\mathbf{1824760} := (1 + 8 - 2)^4 \times 760$$
$$\mathbf{18247600} := (1 + 8 - 2)^4 \times 7600$$

97.

$$\mathbf{184275} := (-1 + 8^4) \times (2 + 7) \times 5$$
$$\mathbf{1842750} := (-1 + 8^4) \times (2 + 7) \times 50$$
$$\mathbf{18427500} := (-1 + 8^4) \times (2 + 7) \times 500$$

98.

$$\mathbf{184325} := (1 + 8^4 \times 3^2) \times 5$$
$$\mathbf{1843250} := (1 + 8^4 \times 3^2) \times 50$$
$$\mathbf{18432500} := (1 + 8^4 \times 3^2) \times 500$$

99.

$$\mathbf{184329} := (1 + 8^4 \times (3 + 2)) \times 9$$
$$\mathbf{1843290} := (1 + 8^4 \times (3 + 2)) \times 90$$
$$\mathbf{18432900} := (1 + 8^4 \times (3 + 2)) \times 900$$

100.

$$\mathbf{184335} := (1 + 8^4 \times 3) \times 3 \times 5$$
$$\mathbf{1843350} := (1 + 8^4 \times 3) \times 3 \times 50$$
$$\mathbf{18433500} := (1 + 8^4 \times 3) \times 3 \times 500$$

101.

$$\mathbf{184365} := (1 + 8^4) \times (3 + 6) \times 5$$
$$\mathbf{1843650} := (1 + 8^4) \times (3 + 6) \times 50$$
$$\mathbf{18436500} := (1 + 8^4) \times (3 + 6) \times 500$$

102.

$$\mathbf{184495} := (-1 + (8^4 + 4) \times 9) \times 5$$
$$\mathbf{1844950} := (-1 + (8^4 + 4) \times 9) \times 50$$
$$\mathbf{18449500} := (-1 + (8^4 + 4) \times 9) \times 500$$

103.

$$\mathbf{184545} := 1 \times (8^4 + 5) \times 45$$
$$\mathbf{1845450} := 1 \times (8^4 + 5) \times 450$$
$$\mathbf{18454500} := 1 \times (8^4 + 5) \times 4500$$

104.

$$\mathbf{184877} := (8 - 1)^{-4+8} \times 77$$
$$\mathbf{1848770} := (8 - 1)^{-4+8} \times 770$$
$$\mathbf{18487700} := (8 - 1)^{-4+8} \times 7700$$

105.

$$\mathbf{186624} := (18 \times (6 + 6))^2 \times 4$$
$$\mathbf{1866240} := (18 \times (6 + 6))^2 \times 40$$
$$\mathbf{18662400} := (18 \times (6 + 6))^2 \times 400$$

106.

$$\mathbf{186644} := (1 + 8 + 6^6 - 4) \times 4$$
$$\mathbf{1866440} := (1 + 8 + 6^6 - 4) \times 40$$
$$\mathbf{18664400} := (1 + 8 + 6^6 - 4) \times 400$$

107.

$$\mathbf{186684} := (-1 + 8 + 6^6 + 8) \times 4$$
$$\mathbf{1866840} := (-1 + 8 + 6^6 + 8) \times 40$$
$$\mathbf{18668400} := (-1 + 8 + 6^6 + 8) \times 400$$

108.

$$\mathbf{187278} := ((-1 + 8) \times 7)^2 \times 78$$
$$\mathbf{1872780} := ((-1 + 8) \times 7)^2 \times 780$$
$$\mathbf{18727800} := ((-1 + 8) \times 7)^2 \times 7800$$

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109.

$$\mathbf{188646} := (-1+\sqrt{8^8}+6)\times 46$$
$$\mathbf{1886460} := (-1+\sqrt{8^8}+6)\times 460$$
$$\mathbf{18864600} := (-1+\sqrt{8^8}+6)\times 4600$$

110.

$$\mathbf{194481} := 1\times(9-\sqrt{4})^4\times 81$$
$$\mathbf{1944810} := 1\times(9-\sqrt{4})^4\times 810$$
$$\mathbf{19448100} := 1\times(9-\sqrt{4})^4\times 8100$$

111.

$$\mathbf{194692} := (1+9+46^{\sqrt{9}})\times 2$$
$$\mathbf{1946920} := (1+9+46^{\sqrt{9}})\times 20$$
$$\mathbf{19469200} := (1+9+46^{\sqrt{9}})\times 200$$

112.

$$\mathbf{196882} := \sqrt{(1^9+6)^8}\times 82$$
$$\mathbf{1968820} := \sqrt{(1^9+6)^8}\times 820$$
$$\mathbf{19688200} := \sqrt{(1^9+6)^8}\times 8200$$

113.

$$\mathbf{209952} := (2\times 09)^{9-5}\times 2$$
$$\mathbf{2099520} := (2\times 09)^{9-5}\times 20$$
$$\mathbf{20995200} := (2\times 09)^{9-5}\times 200$$

114.

$$\mathbf{218491} := (-2+1+8)^4\times 91$$
$$\mathbf{2184910} := (-2+1+8)^4\times 910$$
$$\mathbf{21849100} := (-2+1+8)^4\times 9100$$

115.

$$\mathbf{227529} := (22\times 7+5)^2\times 9$$
$$\mathbf{2275290} := (22\times 7+5)^2\times 90$$
$$\mathbf{22752900} := (22\times 7+5)^2\times 900$$

116.

$$\mathbf{228488} := \sqrt{((-2+28)/\sqrt{4})^8}\times 8$$
$$\mathbf{2284880} := \sqrt{((-2+28)/\sqrt{4})^8}\times 80$$
$$\mathbf{22848800} := \sqrt{((-2+28)/\sqrt{4})^8}\times 800$$

117.

$$\mathbf{229397} := (2^{2\times 9-3}+\sqrt{9})\times 7$$
$$\mathbf{2293970} := (2^{2\times 9-3}+\sqrt{9})\times 70$$
$$\mathbf{22939700} := (2^{2\times 9-3}+\sqrt{9})\times 700$$

118.

$$\mathbf{232324} := (2-3^{2+3})^2\times 4$$
$$\mathbf{2323240} := (2-3^{2+3})^2\times 40$$
$$\mathbf{23232400} := (2-3^{2+3})^2\times 400$$

119.

$$\mathbf{232897} := \sqrt{(2-3^2)^8}\times 97$$
$$\mathbf{2328970} := \sqrt{(2-3^2)^8}\times 970$$
$$\mathbf{23289700} := \sqrt{(2-3^2)^8}\times 9700$$

120.

$$\mathbf{233255} := ((2\times 3)^{3\times 2}-5)\times 5$$
$$\mathbf{2332550} := ((2\times 3)^{3\times 2}-5)\times 50$$
$$\mathbf{23325500} := ((2\times 3)^{3\times 2}-5)\times 500$$

121.

$$\mathbf{233295} := ((2\times 3)^{3\times 2}+\sqrt{9})\times 5$$
$$\mathbf{2332950} := ((2\times 3)^{3\times 2}+\sqrt{9})\times 50$$
$$\mathbf{23329500} := ((2\times 3)^{3\times 2}+\sqrt{9})\times 500$$

122.

$$\mathbf{234365} := (-2+3\times(\sqrt{4}+3)^6)\times 5$$
$$\mathbf{2343650} := (-2+3\times(\sqrt{4}+3)^6)\times 50$$
$$\mathbf{23436500} := (-2+3\times(\sqrt{4}+3)^6)\times 500$$

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123.

$$\mathbf{234375} := (2+3)^4 \times 375$$
$$\mathbf{2343750} := (2+3)^4 \times 3750$$
$$\mathbf{23437500} := (2+3)^4 \times 37500$$

124.

$$\mathbf{236196} := 2 \times 3^{6+1} \times 9 \times 6$$
$$\mathbf{2361960} := 2 \times 3^{6+1} \times 9 \times 60$$
$$\mathbf{23619600} := 2 \times 3^{6+1} \times 9 \times 600$$

125.

$$\mathbf{238328} := (23+8)^{\sqrt{32}} \times 8$$
$$\mathbf{2383280} := (23+8)^{\sqrt{32}} \times 80$$
$$\mathbf{23832800} := (23+8)^{\sqrt{32}} \times 800$$

126.

$$\mathbf{238464} := \sqrt{(2\times 3)^8} \times 46 \times 4$$
$$\mathbf{2384640} := \sqrt{(2\times 3)^8} \times 46 \times 40$$
$$\mathbf{23846400} := \sqrt{(2\times 3)^8} \times 46 \times 400$$

127.

$$\mathbf{253135} := (2+(5\times 3)^{1+3}) \times 5$$
$$\mathbf{2531350} := (2+(5\times 3)^{1+3}) \times 50$$
$$\mathbf{25313500} := (2+(5\times 3)^{1+3}) \times 500$$

128.

$$\mathbf{266565} := (2^{6+6}+5) \times 65$$
$$\mathbf{2665650} := (2^{6+6}+5) \times 650$$
$$\mathbf{26656500} := (2^{6+6}+5) \times 6500$$

129.

$$\mathbf{273375} := (2+7)^3 \times 375$$
$$\mathbf{2733750} := (2+7)^3 \times 3750$$
$$\mathbf{27337500} := (2+7)^3 \times 37500$$

130.

$$\mathbf{278868} := (-2+7+\sqrt{8^8}) \times 68$$
$$\mathbf{2788680} := (-2+7+\sqrt{8^8}) \times 680$$
$$\mathbf{27886800} := (-2+7+\sqrt{8^8}) \times 6800$$

131.

$$\mathbf{279666} := ((2-7)\times 9+6^6) \times 6$$
$$\mathbf{2796660} := ((2-7)\times 9+6^6) \times 60$$
$$\mathbf{27966600} := ((2-7)\times 9+6^6) \times 600$$

132.

$$\mathbf{279841} := (2\times 7+9)^{8-4} \times 1$$
$$\mathbf{2798410} := (2\times 7+9)^{8-4} \times 10$$
$$\mathbf{27984100} := (2\times 7+9)^{8-4} \times 100$$

133.

$$\mathbf{279936} := (27+9)^{9/3} \times 6$$
$$\mathbf{2799360} := (27+9)^{9/3} \times 60$$
$$\mathbf{27993600} := (27+9)^{9/3} \times 600$$

134.

$$\mathbf{279966} := (-2+7+(9-\sqrt{9})^6) \times 6$$
$$\mathbf{2799660} := (-2+7+(9-\sqrt{9})^6) \times 60$$
$$\mathbf{27996600} := (-2+7+(9-\sqrt{9})^6) \times 600$$

135.

$$\mathbf{289444} := (2^8+9+4)^{\sqrt{4}} \times 4$$
$$\mathbf{2894440} := (2^8+9+4)^{\sqrt{4}} \times 40$$
$$\mathbf{28944400} := (2^8+9+4)^{\sqrt{4}} \times 400$$

136.

$$\mathbf{29282} := (2+9)^{\sqrt{2\times 8}} \times 2$$
$$\mathbf{292820} := (2+9)^{\sqrt{2\times 8}} \times 20$$
$$\mathbf{2928200} := (2+9)^{\sqrt{2\times 8}} \times 200$$

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137.

$$\mathbf{294698} := 2+9\times(4^6-\sqrt{9})\times 8$$
$$\mathbf{2946980} := 2+9\times(4^6-\sqrt{9})\times 80$$
$$\mathbf{29469800} := 2+9\times(4^6-\sqrt{9})\times 800$$

138.

$$\mathbf{294849} := (2-9+4^8/\sqrt{4})\times 9$$
$$\mathbf{2948490} := (2-9+4^8/\sqrt{4})\times 90$$
$$\mathbf{29484900} := (2-9+4^8/\sqrt{4})\times 900$$

139.

$$\mathbf{294895} := (2+(9^4-8)\times 9)\times 5$$
$$\mathbf{2948950} := (2+(9^4-8)\times 9)\times 50$$
$$\mathbf{29489500} := (2+(9^4-8)\times 9)\times 500$$

140.

$$\mathbf{294939} := (2^{9+\sqrt{4\times 9}}+3)\times 9$$
$$\mathbf{2949390} := (2^{9+\sqrt{4\times 9}}+3)\times 90$$
$$\mathbf{29493900} := (2^{9+\sqrt{4\times 9}}+3)\times 900$$

141.

$$\mathbf{294955} := (-29\times\sqrt{4}+9^5)\times 5$$
$$\mathbf{2949550} := (-29\times\sqrt{4}+9^5)\times 50$$
$$\mathbf{29495500} := (-29\times\sqrt{4}+9^5)\times 500$$

142.

$$\mathbf{295195} := (-2+9^5+1-9)\times 5$$
$$\mathbf{2951950} := (-2+9^5+1-9)\times 50$$
$$\mathbf{29519500} := (-2+9^5+1-9)\times 500$$

143.

$$\mathbf{295235} := (-2+9^5)\times(-2+3)\times 5$$
$$\mathbf{2952350} := (-2+9^5)\times(-2+3)\times 50$$
$$\mathbf{29523500} := (-2+9^5)\times(-2+3)\times 500$$

144.

$$\mathbf{295245} := (2+9^5+2-4)\times 5$$
$$\mathbf{2952450} := (2+9^5+2-4)\times 50$$
$$\mathbf{29524500} := (2+9^5+2-4)\times 500$$

145.

$$\mathbf{295265} := -2+(9^{\sqrt{5^2}}+6)\times 5$$
$$\mathbf{2952650} := -2+(9^{\sqrt{5^2}}+6)\times 50$$
$$\mathbf{29526500} := -2+(9^{\sqrt{5^2}}+6)\times 500$$

146.

$$\mathbf{295285} := (2+9^5-2+8)\times 5$$
$$\mathbf{2952850} := (2+9^5-2+8)\times 50$$
$$\mathbf{29528500} := (2+9^5-2+8)\times 500$$

147.

$$\mathbf{295295} := (2+9^5+2^{\sqrt{9}})\times 5$$
$$\mathbf{2952950} := (2+9^5+2^{\sqrt{9}})\times 50$$
$$\mathbf{29529500} := (2+9^5+2^{\sqrt{9}})\times 500$$

148.

$$\mathbf{295465} := (-2+9^5+46)\times 5$$
$$\mathbf{2954650} := (-2+9^5+46)\times 50$$
$$\mathbf{29546500} := (-2+9^5+46)\times 500$$

149.

$$\mathbf{295505} := (2+9^5+50)\times 5$$
$$\mathbf{2955050} := (2+9^5+50)\times 50$$
$$\mathbf{29550500} := (2+9^5+50)\times 500$$

150.

$$\mathbf{296344} := (((-2+9)\times 6)^3-\sqrt{4})\times 4$$
$$\mathbf{2963440} := (((-2+9)\times 6)^3-\sqrt{4})\times 40$$
$$\mathbf{29634400} := (((-2+9)\times 6)^3-\sqrt{4})\times 400$$

151.

$$\mathbf{296384} := (((-2+9)\times 6)^3+8)\times 4$$
$$\mathbf{2963840} := (((-2+9)\times 6)^3+8)\times 40$$
$$\mathbf{29638400} := (((-2+9)\times 6)^3+8)\times 400$$

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152.

$$\mathbf{299575} := (2^9+9)\times 575$$
$$\mathbf{2995750} := (2^9+9)\times 5750$$
$$\mathbf{29957500} := (2^9+9)\times 57500$$

153.

$$\mathbf{312325} := 31^2\times 325$$
$$\mathbf{3123250} := 31^2\times 3250$$
$$\mathbf{31232500} := 31^2\times 32500$$

154.

$$\mathbf{314928} := \sqrt{3^{14}}\times 9\times 2\times 8$$
$$\mathbf{3149280} := \sqrt{3^{14}}\times 9\times 2\times 80$$
$$\mathbf{31492800} := \sqrt{3^{14}}\times 9\times 2\times 800$$

155.

$$\mathbf{324723} := (327+\sqrt{4})^2\times 3$$
$$\mathbf{3247230} := (327+\sqrt{4})^2\times 30$$
$$\mathbf{32472300} := (327+\sqrt{4})^2\times 300$$

156.

$$\mathbf{325125} := ((3+2)\times 51)^2\times 5$$
$$\mathbf{3251250} := ((3+2)\times 51)^2\times 50$$
$$\mathbf{32512500} := ((3+2)\times 51)^2\times 500$$

157.

$$\mathbf{326557} := (3\times 2\times 6^5-5)\times 7$$
$$\mathbf{3265570} := (3\times 2\times 6^5-5)\times 70$$
$$\mathbf{32655700} := (3\times 2\times 6^5-5)\times 700$$

158.

$$\mathbf{326617} := 32+(6^6-1)\times 7$$
$$\mathbf{3266170} := 32+(6^6-1)\times 70$$
$$\mathbf{32661700} := 32+(6^6-1)\times 700$$

159.

$$\mathbf{326627} := (3+2+6^{\sqrt{6^2}})\times 7$$
$$\mathbf{3266270} := (3+2+6^{\sqrt{6^2}})\times 70$$
$$\mathbf{32662700} := (3+2+6^{\sqrt{6^2}})\times 700$$

160.

$$\mathbf{326697} := ((3\times 2)^6+6+9)\times 7$$
$$\mathbf{3266970} := ((3\times 2)^6+6+9)\times 70$$
$$\mathbf{32669700} := ((3\times 2)^6+6+9)\times 700$$

161.

$$\mathbf{327485} := (-32-7+4^8)\times 5$$
$$\mathbf{3274850} := (-32-7+4^8)\times 50$$
$$\mathbf{32748500} := (-32-7+4^8)\times 500$$

162.

$$\mathbf{327695} := (3+2^{7+6+\sqrt{9}})\times 5$$
$$\mathbf{3276950} := (3+2^{7+6+\sqrt{9}})\times 50$$
$$\mathbf{32769500} := (3+2^{7+6+\sqrt{9}})\times 500$$

163.

$$\mathbf{333234} := (3\times 33)^2\times 34$$
$$\mathbf{3332340} := (3\times 33)^2\times 340$$
$$\mathbf{33323400} := (3\times 33)^2\times 3400$$

164.

$$\mathbf{34295} := (3+4^2)^{\sqrt{9}}\times 5$$
$$\mathbf{342950} := (3+4^2)^{\sqrt{9}}\times 50$$
$$\mathbf{3429500} := (3+4^2)^{\sqrt{9}}\times 500$$

165.

$$\mathbf{345744} := ((-3+45)\times 7)^{\sqrt{4}}\times 4$$
$$\mathbf{3457440} := ((-3+45)\times 7)^{\sqrt{4}}\times 40$$
$$\mathbf{34574400} := ((-3+45)\times 7)^{\sqrt{4}}\times 400$$

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166.

$$\mathbf{348145} := \sqrt{(3+4)^8} \times 145$$
$$\mathbf{3481450} := \sqrt{(3+4)^8} \times 1450$$
$$\mathbf{34814500} := \sqrt{(3+4)^8} \times 14500$$

167.

$$\mathbf{351232} := (3+51+2)^3 \times 2$$
$$\mathbf{3512320} := (3+51+2)^3 \times 20$$
$$\mathbf{35123200} := (3+51+2)^3 \times 200$$

168.

$$\mathbf{352947} := 3 \times (5+2)^{9-4} \times 7$$
$$\mathbf{3529470} := 3 \times (5+2)^{9-4} \times 70$$
$$\mathbf{35294700} := 3 \times (5+2)^{9-4} \times 700$$

169.

$$\mathbf{354186} := (3^{5\times\sqrt{4}} - 18) \times 6$$
$$\mathbf{3541860} := (3^{5\times\sqrt{4}} - 18) \times 60$$
$$\mathbf{35418600} := (3^{5\times\sqrt{4}} - 18) \times 600$$

170.

$$\mathbf{354246} := (3^{5\times\sqrt{4}} - 2\times 4) \times 6$$
$$\mathbf{3542460} := (3^{5\times\sqrt{4}} - 2\times 4) \times 60$$
$$\mathbf{35424600} := (3^{5\times\sqrt{4}} - 2\times 4) \times 600$$

171.

$$\mathbf{354273} := (3^{5\times\sqrt{4}} \times 2 - 7) \times 3$$
$$\mathbf{3542730} := (3^{5\times\sqrt{4}} \times 2 - 7) \times 30$$
$$\mathbf{35427300} := (3^{5\times\sqrt{4}} \times 2 - 7) \times 300$$

172.

$$\mathbf{354276} := (-3 + (5+4)^{-2+7}) \times 6$$
$$\mathbf{3542760} := (-3 + (5+4)^{-2+7}) \times 60$$
$$\mathbf{35427600} := (-3 + (5+4)^{-2+7}) \times 600$$

173.

$$\mathbf{354277} := ((3\times 5)^4 - 2\times 7) \times 7$$
$$\mathbf{3542770} := ((3\times 5)^4 - 2\times 7) \times 70$$
$$\mathbf{35427700} := ((3\times 5)^4 - 2\times 7) \times 700$$

174.

$$\mathbf{354294} := \sqrt{4} \times 9^{2+\sqrt{4+5}} \times 3$$
$$\mathbf{3542940} := \sqrt{4} \times 9^{2+\sqrt{4+5}} \times 30$$
$$\mathbf{35429400} := \sqrt{4} \times 9^{2+\sqrt{4+5}} \times 300$$

175.

$$\mathbf{354486} := (3^{5\times\sqrt{4}} + 4\times 8) \times 6$$
$$\mathbf{3544860} := (3^{5\times\sqrt{4}} + 4\times 8) \times 60$$
$$\mathbf{35448600} := (3^{5\times\sqrt{4}} + 4\times 8) \times 600$$

176.

$$\mathbf{354487} := ((3\times 5)^4 + \sqrt{4}\times 8) \times 7$$
$$\mathbf{3544870} := ((3\times 5)^4 + \sqrt{4}\times 8) \times 70$$
$$\mathbf{35448700} := ((3\times 5)^4 + \sqrt{4}\times 8) \times 700$$

177.

$$\mathbf{354627} := ((3\times 5)^4 + 6^2) \times 7$$
$$\mathbf{3546270} := ((3\times 5)^4 + 6^2) \times 70$$
$$\mathbf{35462700} := ((3\times 5)^4 + 6^2) \times 700$$

178.

$$\mathbf{354726} := (3^{5\times\sqrt{4}} + 72) \times 6$$
$$\mathbf{3547260} := (3^{5\times\sqrt{4}} + 72) \times 60$$
$$\mathbf{35472600} := (3^{5\times\sqrt{4}} + 72) \times 600$$

179.

$$\mathbf{356445} := (3^5 + 6\times 4)^{\sqrt{4}} \times 5$$
$$\mathbf{3564450} := (3^5 + 6\times 4)^{\sqrt{4}} \times 50$$
$$\mathbf{35644500} := (3^5 + 6\times 4)^{\sqrt{4}} \times 500$$

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180.

$$\mathbf{360855} := (-3+6)^{08} \times 55$$
$$\mathbf{3608550} := (-3+6)^{08} \times 550$$
$$\mathbf{36085500} := (-3+6)^{08} \times 5500$$

181.

$$\mathbf{366795} := (-3^6 + (6\times 7)^{\sqrt{9}}) \times 5$$
$$\mathbf{3667950} := (-3^6 + (6\times 7)^{\sqrt{9}}) \times 50$$
$$\mathbf{36679500} := (-3^6 + (6\times 7)^{\sqrt{9}}) \times 500$$

182.

$$\mathbf{367272} := (3^6 \times 7 + 2) \times 72$$
$$\mathbf{3672720} := (3^6 \times 7 + 2) \times 720$$
$$\mathbf{36727200} := (3^6 \times 7 + 2) \times 7200$$

183.

$$\mathbf{374439} := (-3 + 7^4 \times 4) \times 39$$
$$\mathbf{3744390} := (-3 + 7^4 \times 4) \times 390$$
$$\mathbf{37443900} := (-3 + 7^4 \times 4) \times 3900$$

184.

$$\mathbf{374452} := (3 \times 7^4 - \sqrt{4}) \times 52$$
$$\mathbf{3744520} := (3 \times 7^4 - \sqrt{4}) \times 520$$
$$\mathbf{37445200} := (3 \times 7^4 - \sqrt{4}) \times 5200$$

185.

$$\mathbf{375168} := 3 \times (7 + 5^{1\times 6}) \times 8$$
$$\mathbf{3751680} := 3 \times (7 + 5^{1\times 6}) \times 80$$
$$\mathbf{37516800} := 3 \times (7 + 5^{1\times 6}) \times 800$$

186.

$$\mathbf{391864} := (-3^9 + (-1+8)^6) \times 4$$
$$\mathbf{3918640} := (-3^9 + (-1+8)^6) \times 40$$
$$\mathbf{39186400} := (-3^9 + (-1+8)^6) \times 400$$

187.

$$\mathbf{393222} := (2 + 2^{2^3+9}) \times 3$$
$$\mathbf{3932220} := (2 + 2^{2^3+9}) \times 30$$
$$\mathbf{39322200} := (2 + 2^{2^3+9}) \times 300$$

188.

$$\mathbf{393645} := (-3 + \sqrt{9^{3+6}} \times 4) \times 5$$
$$\mathbf{3936450} := (-3 + \sqrt{9^{3+6}} \times 4) \times 50$$
$$\mathbf{39364500} := (-3 + \sqrt{9^{3+6}} \times 4) \times 500$$

189.

$$\mathbf{397535} := (3 \times (9+7) - 5)^3 \times 5$$
$$\mathbf{3975350} := (3 \times (9+7) - 5)^3 \times 50$$
$$\mathbf{39753500} := (3 \times (9+7) - 5)^3 \times 500$$

190.

$$\mathbf{411845} := (41 \times (-1+8))^{\sqrt{4}} \times 5$$
$$\mathbf{4118450} := (41 \times (-1+8))^{\sqrt{4}} \times 50$$
$$\mathbf{41184500} := (41 \times (-1+8))^{\sqrt{4}} \times 500$$

191.

$$\mathbf{413357} := (\sqrt{4} + 1 \times (3\times 3)^5) \times 7$$
$$\mathbf{4133570} := (\sqrt{4} + 1 \times (3\times 3)^5) \times 70$$
$$\mathbf{41335700} := (\sqrt{4} + 1 \times (3\times 3)^5) \times 700$$

192.

$$\mathbf{413466} := (41^3 - 4 - 6) \times 6$$
$$\mathbf{4134660} := (41^3 - 4 - 6) \times 60$$
$$\mathbf{41346600} := (41^3 - 4 - 6) \times 600$$

193.

$$\mathbf{413496} := (41^3 + 4 - 9) \times 6$$
$$\mathbf{4134960} := (41^3 + 4 - 9) \times 60$$
$$\mathbf{41349600} := (41^3 + 4 - 9) \times 600$$

194.

$$\mathbf{413526} := 41^{\sqrt{3\times 5-2}} \times 6$$
$$\mathbf{4135260} := 41^{\sqrt{3\times 5-2}} \times 60$$
$$\mathbf{41352600} := 41^{\sqrt{3\times 5-2}} \times 600$$

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195.

$$\mathbf{413556} := (41^3 + \sqrt{5 \times 5}) \times 6$$
$$\mathbf{4135560} := (41^3 + \sqrt{5 \times 5}) \times 60$$
$$\mathbf{41355600} := (41^3 + \sqrt{5 \times 5}) \times 600$$

196.

$$\mathbf{417595} := (-\sqrt{4} + 17^{-5+9}) \times 5$$
$$\mathbf{4175950} := (-\sqrt{4} + 17^{-5+9}) \times 50$$
$$\mathbf{41759500} := (-\sqrt{4} + 17^{-5+9}) \times 500$$

197.

$$\mathbf{417625} := (4 + 17^{6-2}) \times 5$$
$$\mathbf{4176250} := (4 + 17^{6-2}) \times 50$$
$$\mathbf{41762500} := (4 + 17^{6-2}) \times 500$$

198.

$$\mathbf{419888} := (-\sqrt{4} + 1 \times \sqrt{9^8} \times 8) \times 8$$
$$\mathbf{4198880} := (-\sqrt{4} + 1 \times \sqrt{9^8} \times 8) \times 80$$
$$\mathbf{41988800} := (-\sqrt{4} + 1 \times \sqrt{9^8} \times 8) \times 800$$

199.

$$\mathbf{435456} := (\sqrt{4} \times 3)^{\sqrt{\sqrt{5^4}}} \times 56$$
$$\mathbf{4354560} := (\sqrt{4} \times 3)^{\sqrt{\sqrt{5^4}}} \times 560$$
$$\mathbf{43545600} := (\sqrt{4} \times 3)^{\sqrt{\sqrt{5^4}}} \times 5600$$

200.

$$\mathbf{438928} := (-4 + 38^{\sqrt{9}} - 2) \times 8$$
$$\mathbf{4389280} := (-4 + 38^{\sqrt{9}} - 2) \times 80$$
$$\mathbf{43892800} := (-4 + 38^{\sqrt{9}} - 2) \times 800$$

201.

$$\mathbf{438944} := \sqrt{4} \times (38^{\sqrt{9}} - 4) \times 4$$
$$\mathbf{4389440} := \sqrt{4} \times (38^{\sqrt{9}} - 4) \times 40$$
$$\mathbf{43894400} := \sqrt{4} \times (38^{\sqrt{9}} - 4) \times 400$$

202.

$$\mathbf{442368} := 4 \times \sqrt{(4 \times 2 \times 3)^6} \times 8$$
$$\mathbf{4423680} := 4 \times \sqrt{(4 \times 2 \times 3)^6} \times 80$$
$$\mathbf{44236800} := 4 \times \sqrt{(4 \times 2 \times 3)^6} \times 800$$

203.

$$\mathbf{455147} := (-4 + (5 \times 51)^{\sqrt{4}}) \times 7$$
$$\mathbf{4551470} := (-4 + (5 \times 51)^{\sqrt{4}}) \times 70$$
$$\mathbf{45514700} := (-4 + (5 \times 51)^{\sqrt{4}}) \times 700$$

204.

$$\mathbf{466375} := (\sqrt{4} \times 6^6 - 37) \times 5$$
$$\mathbf{4663750} := (\sqrt{4} \times 6^6 - 37) \times 50$$
$$\mathbf{46637500} := (\sqrt{4} \times 6^6 - 37) \times 500$$

205.

$$\mathbf{466495} := (\sqrt{4} \times 6^6 - 4 - 9) \times 5$$
$$\mathbf{4664950} := (\sqrt{4} \times 6^6 - 4 - 9)) \times 50$$
$$\mathbf{46649500} := (\sqrt{4} \times 6^6 - 4 - 9)) \times 500$$

206.

$$\mathbf{466515} := (\sqrt{4} \times (6^6 - 5) + 1) \times 5$$
$$\mathbf{4665150} := (\sqrt{4} \times (6^6 - 5) + 1) \times 50$$
$$\mathbf{46651500} := (\sqrt{4} \times (6^6 - 5) + 1) \times 500$$

207.

$$\mathbf{466525} := (\sqrt{4} \times 6^6 - 5 - 2) \times 5$$
$$\mathbf{4665250} := (\sqrt{4} \times 6^6 - 5 - 2) \times 50$$
$$\mathbf{46652500} := (\sqrt{4} \times 6^6 - 5 - 2) \times 500$$

208.

$$\mathbf{466536} := (-4 + 6^6 \times 5/3) \times 6$$
$$\mathbf{4665360} := (-4 + 6^6 \times 5/3) \times 60$$
$$\mathbf{46653600} := (-4 + 6^6 \times 5/3) \times 600$$

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209.

$$\mathbf{466575} := (\sqrt{4} \times (6^6 + 5) - 7) \times 5$$
$$\mathbf{4665750} := (\sqrt{4} \times (6^6 + 5) - 7) \times 50$$
$$\mathbf{46657500} := (\sqrt{4} \times (6^6 + 5) - 7) \times 500$$

210.

$$\mathbf{466585} := \left(\sqrt{4} \times 6^6 + \sqrt{\sqrt{\sqrt{5^8}}}\right) \times 5$$
$$\mathbf{4665850} := \left(\sqrt{4} \times 6^6 + \sqrt{\sqrt{\sqrt{5^8}}}\right) \times 50$$
$$\mathbf{46658500} := \left(\sqrt{4} \times 6^6 + \sqrt{\sqrt{\sqrt{5^8}}}\right) \times 500$$

211.

$$\mathbf{466595} := (\sqrt{4} \times (6^6 + 5) - \sqrt{9}) \times 5$$
$$\mathbf{4665950} := (\sqrt{4} \times (6^6 + 5) - \sqrt{9}) \times 50$$
$$\mathbf{46659500} := (\sqrt{4} \times (6^6 + 5) - \sqrt{9}) \times 500$$

212.

$$\mathbf{466615} := (\sqrt{4} \times (6 + 6^6) - 1) \times 5$$
$$\mathbf{4666150} := (\sqrt{4} \times (6 + 6^6) - 1) \times 50$$
$$\mathbf{46661500} := (\sqrt{4} \times (6 + 6^6) - 1) \times 500$$

213.

$$\mathbf{466635} := (\sqrt{4} \times (6 + 6^6) + 3) \times 5$$
$$\mathbf{4666350} := (\sqrt{4} \times (6 + 6^6) + 3) \times 50$$
$$\mathbf{46663500} := (\sqrt{4} \times (6 + 6^6) + 3) \times 500$$

214.

$$\mathbf{466652} := (46 + 6^6 \times 5) \times 2$$
$$\mathbf{4666520} := (46 + 6^6 \times 5) \times 20$$
$$\mathbf{46665200} := (46 + 6^6 \times 5) \times 200$$

215.

$$\mathbf{470604} := (\sqrt{4} + 7^{06}) \times 04$$
$$\mathbf{4706040} := (\sqrt{4} + 7^{06}) \times 040$$
$$\mathbf{47060400} := (\sqrt{4} + 7^{06}) \times 0400$$

216.

$$\mathbf{471576} := (471 + 5^7) \times 6$$
$$\mathbf{4715760} := (471 + 5^7) \times 60$$
$$\mathbf{47157600} := (471 + 5^7) \times 600$$

217.

$$\mathbf{473344} := (4 + 7^3 - 3)^{\sqrt{4}} \times 4$$
$$\mathbf{4733440} := (4 + 7^3 - 3)^{\sqrt{4}} \times 40$$
$$\mathbf{47334400} := (4 + 7^3 - 3)^{\sqrt{4}} \times 400$$

218.

$$\mathbf{483153} := (\sqrt{48 \times 3} - 1)^5 \times 3$$
$$\mathbf{4831530} := (\sqrt{48 \times 3} - 1)^5 \times 30$$
$$\mathbf{48315300} := (\sqrt{48 \times 3} - 1)^5 \times 300$$

219.

$$\mathbf{491775} := (-4 + \sqrt{9^{1+7}}) \times 75$$
$$\mathbf{4917750} := (-4 + \sqrt{9^{1+7}}) \times 750$$
$$\mathbf{49177500} := (-4 + \sqrt{9^{1+7}}) \times 7500$$

220.

$$\mathbf{492205} := 49^2 \times 205$$
$$\mathbf{4922050} := 49^2 \times 2050$$
$$\mathbf{49220500} := 49^2 \times 20500$$

221.

$$\mathbf{492375} := (4 + \sqrt{9^{2^3}}) \times 75$$
$$\mathbf{4923750} := (4 + \sqrt{9^{2^3}}) \times 750$$
$$\mathbf{49237500} := (4 + \sqrt{9^{2^3}}) \times 7500$$

222.

$$\mathbf{493839} := (-4 + \sqrt{9} + 38^3) \times 9$$
$$\mathbf{4938390} := (-4 + \sqrt{9} + 38^3) \times 90$$
$$\mathbf{49383900} := (-4 + \sqrt{9} + 38^3) \times 900$$

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223.

$$\mathbf{499755} := (-49 + (\sqrt{9} + 7)^5) \times 5$$
$$\mathbf{4997550} := (-49 + (\sqrt{9} + 7)^5) \times 50$$
$$\mathbf{49975500} := (-49 + (\sqrt{9} + 7)^5) \times 500$$

224.

$$\mathbf{524088} := (-5^2 + 4^{08}) \times 8$$
$$\mathbf{5240880} := (-5^2 + 4^{08}) \times 80$$
$$\mathbf{52408800} := (-5^2 + 4^{08}) \times 800$$

225.

$$\mathbf{524248} := (-5 + (-2 + 4)^{2^4}) \times 8$$
$$\mathbf{5242480} := (-5 + (-2 + 4)^{2^4}) \times 80$$
$$\mathbf{52424800} := (-5 + (-2 + 4)^{2^4}) \times 800$$

226.

$$\mathbf{524288} := (5 - 2/(4/2))^8 \times 8$$
$$\mathbf{5242880} := (5 - 2/(4/2))^8 \times 80$$
$$\mathbf{52428800} := (5 - 2/(4/2))^8 \times 800$$

227.

$$\mathbf{524328} := (5 + 2^{\sqrt{4^3} \times 2}) \times 8$$
$$\mathbf{5243280} := (5 + 2^{\sqrt{4^3} \times 2}) \times 80$$
$$\mathbf{52432800} := (5 + 2^{\sqrt{4^3} \times 2}) \times 800$$

228.

$$\mathbf{524392} := (52 + 4^{3 \times \sqrt{9}}) \times 2$$
$$\mathbf{5243920} := (52 + 4^{3 \times \sqrt{9}}) \times 20$$
$$\mathbf{52439200} := (52 + 4^{3 \times \sqrt{9}}) \times 200$$

229.

$$\mathbf{524488} := (5^{-2+4} + 4^8) \times 8$$
$$\mathbf{5244880} := (5^{-2+4} + 4^8) \times 80$$
$$\mathbf{52448800} := (5^{-2+4} + 4^8) \times 800$$

230.

$$\mathbf{526833} := (-5 + (2^6 - 8)^3) \times 3$$
$$\mathbf{5268330} := (-5 + (2^6 - 8)^3) \times 30$$
$$\mathbf{52683300} := (-5 + (2^6 - 8)^3) \times 300$$

231.

$$\mathbf{538412} := (5 + 3^8) \times 41 \times 2$$
$$\mathbf{5384120} := (5 + 3^8) \times 41 \times 20$$
$$\mathbf{53841200} := (5 + 3^8) \times 41 \times 200$$

232.

$$\mathbf{559539} := (5^5 + 9^5 - 3) \times 9$$
$$\mathbf{5595390} := (5^5 + 9^5 - 3) \times 90$$
$$\mathbf{55953900} := (5^5 + 9^5 - 3) \times 900$$

233.

$$\mathbf{559872} := (\sqrt{5 \times 5} + 9 - 8)^7 \times 2$$
$$\mathbf{5598720} := (\sqrt{5 \times 5} + 9 - 8)^7 \times 20$$
$$\mathbf{55987200} := (\sqrt{5 \times 5} + 9 - 8)^7 \times 200$$

234.

$$\mathbf{562419} := ((5^6 - 2) \times 4 - 1) \times 9$$
$$\mathbf{5624190} := ((5^6 - 2) \times 4 - 1) \times 90$$
$$\mathbf{56241900} := ((5^6 - 2) \times 4 - 1) \times 900$$

235.

$$\mathbf{563922} := ((56 + 3) \times 9)^2 \times 2$$
$$\mathbf{5639220} := ((56 + 3) \times 9)^2 \times 20$$
$$\mathbf{56392200} := ((56 + 3) \times 9)^2 \times 200$$

236.

$$\mathbf{566937} := (\sqrt{(5 \times 6)^6} - \sqrt{9}) \times 3 \times 7$$
$$\mathbf{5669370} := (\sqrt{(5 \times 6)^6} - \sqrt{9}) \times 3 \times 70$$
$$\mathbf{56693700} := (\sqrt{(5 \times 6)^6} - \sqrt{9}) \times 3 \times 700$$

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237.

$$\mathbf{574644} := (5^7 + 4^{\sqrt{64}}) \times 4$$
$$\mathbf{5746440} := (5^7 + 4^{\sqrt{64}}) \times 40$$
$$\mathbf{57464400} := (5^7 + 4^{\sqrt{64}}) \times 400$$

238.

$$\mathbf{574992} := (-5 + 74 - \sqrt{9})^{\sqrt{9}} \times 2$$
$$\mathbf{5749920} := (-5 + 74 - \sqrt{9})^{\sqrt{9}} \times 20$$
$$\mathbf{57499200} := (-5 + 74 - \sqrt{9})^{\sqrt{9}} \times 200$$

239.

$$\mathbf{583443} := (5 + 8 - 34)^4 \times 3$$
$$\mathbf{5834430} := (5 + 8 - 34)^4 \times 30$$
$$\mathbf{58344300} := (5 + 8 - 34)^4 \times 300$$

240.

$$\mathbf{584199} := (-\sqrt{5^8} + 4^{-1+9}) \times 9$$
$$\mathbf{5841990} := (-\sqrt{5^8} + 4^{-1+9}) \times 90$$
$$\mathbf{58419900} := (-\sqrt{5^8} + 4^{-1+9}) \times 900$$

241.

$$\mathbf{584647} := (5 + 8/4 \times 6)^4 \times 7$$
$$\mathbf{5846470} := (5 + 8/4 \times 6)^4 \times 70$$
$$\mathbf{58464700} := (5 + 8/4 \times 6)^4 \times 700$$

242.

$$\mathbf{588245} := \left(5 + \sqrt{\sqrt{8+8}}\right)^{2+4} \times 5$$
$$\mathbf{5882450} := \left(5 + \sqrt{\sqrt{8+8}}\right)^{2+4} \times 50$$
$$\mathbf{58824500} := \left(5 + \sqrt{\sqrt{8+8}}\right)^{2+4} \times 500$$

243.

$$\mathbf{588765} := ((5 + 8) \times 8 + 7^6) \times 5$$
$$\mathbf{5887650} := ((5 + 8) \times 8 + 7^6) \times 50$$
$$\mathbf{58876500} := ((5 + 8) \times 8 + 7^6) \times 500$$

244.

$$\mathbf{629984} := (6 - 2 + \sqrt{9^9}) \times 8 \times 4$$
$$\mathbf{6299840} := (6 - 2 + \sqrt{9^9}) \times 8 \times 40$$
$$\mathbf{62998400} := (6 - 2 + \sqrt{9^9}) \times 8 \times 400$$

245.

$$\mathbf{640024} := (6 + 400^2) \times 4$$
$$\mathbf{6400240} := (6 + 400^2) \times 40$$
$$\mathbf{64002400} := (6 + 400^2) \times 400$$

246.

$$\mathbf{653184} := 6^5 \times (3 + 18) \times 4$$
$$\mathbf{6531840} := 6^5 \times (3 + 18) \times 40$$
$$\mathbf{65318400} := 6^5 \times (3 + 18) \times 400$$

247.

$$\mathbf{655284} := (6^5 + 5^2) \times 84$$
$$\mathbf{6552840} := (6^5 + 5^2) \times 840$$
$$\mathbf{65528400} := (6^5 + 5^2) \times 8400$$

248.

$$\mathbf{655935} := (6 \times 5^5 - 9) \times 35$$
$$\mathbf{6559350} := (6 \times 5^5 - 9) \times 350$$
$$\mathbf{65593500} := (6 \times 5^5 - 9) \times 3500$$

249.

$$\mathbf{656187} := (6 \times 5^6 - 1 - 8) \times 7$$
$$\mathbf{6561870} := (6 \times 5^6 - 1 - 8) \times 70$$
$$\mathbf{65618700} := (6 \times 5^6 - 1 - 8) \times 700$$

250.

$$\mathbf{656376} := (6 + 5^6 - 3) \times 7 \times 6$$
$$\mathbf{6563760} := (6 + 5^6 - 3) \times 7 \times 60$$
$$\mathbf{65637600} := (6 + 5^6 - 3) \times 7 \times 600$$

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251.

$$\mathbf{656397} := (6 \times (5^6 + 3) + \sqrt{9}) \times 7$$
$$\mathbf{6563970} := (6 \times (5^6 + 3) + \sqrt{9}) \times 70$$
$$\mathbf{65639700} := (6 \times (5^6 + 3) + \sqrt{9}) \times 700$$

252.

$$\mathbf{656817} := (6 \times 5^6 + 81) \times 7$$
$$\mathbf{6568170} := (6 \times 5^6 + 81) \times 70$$
$$\mathbf{65681700} := (6 \times 5^6 + 81) \times 700$$

253.

$$\mathbf{658845} := (6 + 5)^{\sqrt{8+8}} \times 45$$
$$\mathbf{6588450} := (6 + 5)^{\sqrt{8+8}} \times 450$$
$$\mathbf{65884500} := (6 + 5)^{\sqrt{8+8}} \times 4500$$

254.

$$\mathbf{659685} := (6^5 - 9 - 6) \times 85$$
$$\mathbf{6596850} := (6^5 - 9 - 6) \times 850$$
$$\mathbf{65968500} := (6^5 - 9 - 6) \times 8500$$

255.

$$\mathbf{684288} := \sqrt{6^8} \times (4 + 2) \times 88$$
$$\mathbf{6842880} := \sqrt{6^8} \times (4 + 2) \times 880$$
$$\mathbf{68428800} := \sqrt{6^8} \times (4 + 2) \times 8800$$

256.

$$\mathbf{688128} := 6 \times \sqrt{8^8} \times 1 \times 28$$
$$\mathbf{6881280} := 6 \times \sqrt{8^8} \times 1 \times 280$$
$$\mathbf{68812800} := 6 \times \sqrt{8^8} \times 1 \times 2800$$

257.

$$\mathbf{699735} := (6^{9-\sqrt{9}} - 7) \times 3 \times 5$$
$$\mathbf{6997350} := (6^{9-\sqrt{9}} - 7) \times 3 \times 50$$
$$\mathbf{69973500} := (6^{9-\sqrt{9}} - 7) \times 3 \times 500$$

258.

$$\mathbf{699875} := (6^9/(9 \times 8) + 7) \times 5$$
$$\mathbf{6998750} := (6^9/(9 \times 8) + 7) \times 50$$
$$\mathbf{69987500} := (6^9/(9 \times 8) + 7) \times 500$$

259.

$$\mathbf{705642} := (7^{05} - 6) \times 42$$
$$\mathbf{7056420} := (7^{05} - 6) \times 420$$
$$\mathbf{70564200} := (7^{05} - 6) \times 4200$$

260.

$$\mathbf{708295} := \sqrt{7^{08}} \times 295$$
$$\mathbf{7082950} := \sqrt{7^{08}} \times 2950$$
$$\mathbf{70829500} := \sqrt{7^{08}} \times 29500$$

261.

$$\mathbf{715822} := 71^{\sqrt{5+8/2}} \times 2$$
$$\mathbf{7158220} := 71^{\sqrt{5+8/2}} \times 20$$
$$\mathbf{71582200} := 71^{\sqrt{5+8/2}} \times 200$$

262.

$$\mathbf{741321} := (7 \times 41 \times 3)^2 \times 1$$
$$\mathbf{7413210} := (7 \times 41 \times 3)^2 \times 10$$
$$\mathbf{74132100} := (7 \times 41 \times 3)^2 \times 100$$

263.

$$\mathbf{742572} := ((7 + 4 + 2)^5 - 7) \times 2$$
$$\mathbf{7425720} := ((7 + 4 + 2)^5 - 7) \times 20$$
$$\mathbf{74257200} := ((7 + 4 + 2)^5 - 7) \times 200$$

264.

$$\mathbf{742592} := ((7 + 4 + 2)^5 + \sqrt{9}) \times 2$$
$$\mathbf{7425920} := ((7 + 4 + 2)^5 + \sqrt{9}) \times 20$$
$$\mathbf{74259200} := ((7 + 4 + 2)^5 + \sqrt{9}) \times 200$$

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265.

$$\mathbf{744385} := (\sqrt{7^4}+4)^{\sqrt{\sqrt{\sqrt{3^8}}}} \times 5$$
$$\mathbf{7443850} := (\sqrt{7^4}+4)^{\sqrt{\sqrt{\sqrt{3^8}}}} \times 50$$
$$\mathbf{74438500} := (\sqrt{7^4}+4)^{\sqrt{\sqrt{\sqrt{3^8}}}} \times 500$$

266.

$$\mathbf{746496} := (7+\sqrt{4}) \times (6\times 4)^{\sqrt{9}} \times 6$$
$$\mathbf{7464960} := (7+\sqrt{4}) \times (6\times 4)^{\sqrt{9}} \times 60$$
$$\mathbf{74649600} := (7+\sqrt{4}) \times (6\times 4)^{\sqrt{9}} \times 600$$

267.

$$\mathbf{746523} := (7+(\sqrt{4}\times 6)^5+2)\times 3$$
$$\mathbf{7465230} := (7+(\sqrt{4}\times 6)^5+2)\times 30$$
$$\mathbf{74652300} := (7+(\sqrt{4}\times 6)^5+2)\times 300$$

268.

$$\mathbf{756315} := 7^5 \times (6-3) \times 15$$
$$\mathbf{7563150} := 7^5 \times (6-3) \times 150$$
$$\mathbf{75631500} := 7^5 \times (6-3) \times 1500$$

269.

$$\mathbf{756325} := (7^5 \times (6+3)+2) \times 5$$
$$\mathbf{7563250} := (7^5 \times (6+3)+2) \times 50$$
$$\mathbf{75632500} := (7^5 \times (6+3)+2) \times 500$$

270.

$$\mathbf{756495} := (7^5+6-\sqrt{4}) \times 9 \times 5$$
$$\mathbf{7564950} := (7^5+6-\sqrt{4}) \times 9 \times 50$$
$$\mathbf{75649500} := (7^5+6-\sqrt{4}) \times 9 \times 500$$

271.

$$\mathbf{756549} := ((7^5+6)\times 5-4)\times 9$$
$$\mathbf{7565490} := ((7^5+6)\times 5-4)\times 90$$
$$\mathbf{75654900} := ((7^5+6)\times 5-4)\times 900$$

272.

$$\mathbf{766927} := (7+6\times 6\times 9)^2 \times 7$$
$$\mathbf{7669270} := (7+6\times 6\times 9)^2 \times 70$$
$$\mathbf{76692700} := (7+6\times 6\times 9)^2 \times 700$$

273.

$$\mathbf{777924} := 7\times 7\times (7\times 9)^2 \times 4$$
$$\mathbf{7779240} := 7\times 7\times (7\times 9)^2 \times 40$$
$$\mathbf{77792400} := 7\times 7\times (7\times 9)^2 \times 400$$

274.

$$\mathbf{786393} := (-7+8^6+3-9)\times 3$$
$$\mathbf{7863930} := (-7+8^6+3-9)\times 30$$
$$\mathbf{78639300} := (-7+8^6+3-9)\times 300$$

275.

$$\mathbf{786411} := (-7+8^6)\times(4-1)\times 1$$
$$\mathbf{7864110} := (-7+8^6)\times(4-1)\times 10$$
$$\mathbf{78641100} := (-7+8^6)\times(4-1)\times 100$$

276.

$$\mathbf{786423} := (-7+8^6+\sqrt{4^2})\times 3$$
$$\mathbf{7864230} := (-7+8^6+\sqrt{4^2})\times 30$$
$$\mathbf{78642300} := (-7+8^6+\sqrt{4^2})\times 300$$

277.

$$\mathbf{786483} := (7+8^6+\sqrt{4}+8)\times 3$$
$$\mathbf{7864830} := (7+8^6+\sqrt{4}+8)\times 30$$
$$\mathbf{78648300} := (7+8^6+\sqrt{4}+8)\times 300$$

278.

$$\mathbf{789647} := (7^{8-\sqrt{9}}-6)\times 47$$
$$\mathbf{7896470} := (7^{8-\sqrt{9}}-6)\times 470$$
$$\mathbf{78964700} := (7^{8-\sqrt{9}}-6)\times 4700$$

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279.

$$\mathbf{796488} := 7 \times (-\sqrt{9} + 6^4) \times 88$$
$$\mathbf{7964880} := 7 \times (-\sqrt{9} + 6^4) \times 880$$
$$\mathbf{79648800} := 7 \times (-\sqrt{9} + 6^4) \times 8800$$

280.

$$\mathbf{798848} := (79 \times \sqrt{8+8})^{\sqrt{4}} \times 8$$
$$\mathbf{7988480} := (79 \times \sqrt{8+8})^{\sqrt{4}} \times 80$$
$$\mathbf{79884800} := (79 \times \sqrt{8+8})^{\sqrt{4}} \times 800$$

281.

$$\mathbf{805255} := (8 + 05 - 2)^5 \times 5$$
$$\mathbf{8052550} := (8 + 05 - 2)^5 \times 50$$
$$\mathbf{80525500} := (8 + 05 - 2)^5 \times 500$$

282.

$$\mathbf{805655} := (80 + (5+6)^5) \times 5$$
$$\mathbf{8056550} := (80 + (5+6)^5) \times 50$$
$$\mathbf{80565500} := (80 + (5+6)^5) \times 500$$

283.

$$\mathbf{839673} := ((-8+3) \times 9 + 6^7) \times 3$$
$$\mathbf{8396730} := ((-8+3) \times 9 + 6^7) \times 30$$
$$\mathbf{83967300} := ((-8+3) \times 9 + 6^7) \times 300$$

284.

$$\mathbf{839793} := (-8 + (-3+9)^7 + \sqrt{9}) \times 3$$
$$\mathbf{8397930} := (-8 + (-3+9)^7 + \sqrt{9}) \times 30$$
$$\mathbf{83979300} := (-8 + (-3+9)^7 + \sqrt{9}) \times 300$$

285.

$$\mathbf{907596} := (9 \times (07)^5 + \sqrt{9}) \times 6$$
$$\mathbf{9075960} := (9 \times (07)^5 + \sqrt{9}) \times 60$$
$$\mathbf{90759600} := (9 \times (07)^5 + \sqrt{9}) \times 600$$

286.

$$\mathbf{911493} := (9 \times 11)^{\sqrt{4}} \times 93$$
$$\mathbf{9114930} := (9 \times 11)^{\sqrt{4}} \times 930$$
$$\mathbf{91149300} := (9 \times 11)^{\sqrt{4}} \times 9300$$

287.

$$\mathbf{912247} := (9 + 12 - 2)^4 \times 7$$
$$\mathbf{9122470} := (9 + 12 - 2)^4 \times 70$$
$$\mathbf{91224700} := (9 + 12 - 2)^4 \times 700$$

288.

$$\mathbf{924385} := (9 - 2)^4 \times 385$$
$$\mathbf{9243850} := (9 - 2)^4 \times 3850$$
$$\mathbf{92438500} := (9 - 2)^4 \times 38500$$

289.

$$\mathbf{938492} := (93 + 8)^{\sqrt{4}} \times 92$$
$$\mathbf{9384920} := (93 + 8)^{\sqrt{4}} \times 920$$
$$\mathbf{93849200} := (93 + 8)^{\sqrt{4}} \times 9200$$

290.

$$\mathbf{941168} := (\sqrt{9} + (-4+11)^6) \times 8$$
$$\mathbf{9411680} := (\sqrt{9} + (-4+11)^6) \times 80$$
$$\mathbf{94116800} := (\sqrt{9} + (-4+11)^6) \times 800$$

291.

$$\mathbf{944559} := ((9 \times \sqrt{4})^4 - 5 \times 5) \times 9$$
$$\mathbf{9445590} := ((9 \times \sqrt{4})^4 - 5 \times 5) \times 90$$
$$\mathbf{94455900} := ((9 \times \sqrt{4})^4 - 5 \times 5) \times 900$$

292.

$$\mathbf{944784} := 9^4 \times (4 \times 7 + 8) \times 4$$
$$\mathbf{9447840} := 9^4 \times (4 \times 7 + 8) \times 40$$
$$\mathbf{94478400} := 9^4 \times (4 \times 7 + 8) \times 400$$

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293.

$$\mathbf{948395} := \sqrt{(9-\sqrt{4})^8} \times 395$$
$$\mathbf{9483950} := \sqrt{(9-\sqrt{4})^8} \times 3950$$
$$\mathbf{94839500} := \sqrt{(9-\sqrt{4})^8} \times 39500$$

294.

$$\mathbf{973944} := ((9\times 7)^3 - 9^4) \times 4$$
$$\mathbf{9739440} := ((9\times 7)^3 - 9^4) \times 40$$
$$\mathbf{97394400} := ((9\times 7)^3 - 9^4) \times 400$$

295.

$$\mathbf{989497} := (98+\sqrt{9})^{\sqrt{4}} \times 97$$
$$\mathbf{9894970} := (98+\sqrt{9})^{\sqrt{4}} \times 970$$
$$\mathbf{98949700} := (98+\sqrt{9})^{\sqrt{4}} \times 9700$$

296.

$$\mathbf{995319} := ((\sqrt{9}+9\times 5)^3 - 1) \times 9$$
$$\mathbf{9953190} := ((\sqrt{9}+9\times 5)^3 - 1) \times 90$$
$$\mathbf{99531900} := ((\sqrt{9}+9\times 5)^3 - 1) \times 900$$

297.

$$\mathbf{995324} := ((9+\sqrt{9})^5 - 3 + 2) \times 4$$
$$\mathbf{9953240} := ((9+\sqrt{9})^5 - 3 + 2) \times 40$$
$$\mathbf{99532400} := ((9+\sqrt{9})^5 - 3 + 2) \times 400$$

298.

$$\mathbf{995544} := ((9+\sqrt{9})^5 + 54) \times 4$$
$$\mathbf{9955440} := ((9+\sqrt{9})^5 + 54) \times 40$$
$$\mathbf{99554400} := ((9+\sqrt{9})^5 + 54) \times 400$$

4 Pattern in Semi-Selfie Numbers

Below are patterns in semi-selfie numbers. In each case, only first four values are given. Further values follows in a symmetric way.

1.

$$\mathbf{10} = 10^1$$
$$\mathbf{1000} = (10+00)^3$$
$$\mathbf{100000} = (10+0000)^5$$
$$\mathbf{10000000} = (10+000000)^7$$

2.

$$\mathbf{81} = (8+1)^2$$
$$\mathbf{9801} = (98+01)^2$$
$$\mathbf{99801} = (998+001)^2$$
$$\mathbf{999801} = (9998+0001)^2$$

3.

$$\mathbf{121} = (12-1)^2$$
$$\mathbf{10201} = (102-01)^2$$
$$\mathbf{1002001} = (1002-001)^2$$
$$\mathbf{100020001} = (10002-0001)^2$$

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4.

$$\begin{aligned}
\mathbf{3025} &= (30+25)^2\\
\mathbf{98903025} &= (9890+30+25)^2\\
\mathbf{9989003025} &= (99890+030+25)^2\\
\mathbf{999890003025} &= (999890+0030+25)^2
\end{aligned}$$

5.

$$\begin{aligned}
\mathbf{1331} &= (13-3+1)^3\\
\mathbf{1030301} &= (103-03+01)^3\\
\mathbf{1003003001} &= (1003-003+001)^3\\
\mathbf{1000300030001} &= (10003-0003+0001)^3
\end{aligned}$$

6.

$$\begin{aligned}
\mathbf{3125} &= (3-1-2+5)^5\\
\mathbf{312500000} &= (3-1-2+50+0000)^5\\
\mathbf{31250000000000} &= (3-1-2+500+0000+0000)^5\\
\mathbf{3125000000000000000} &= (3-1-2+5000+0000+0000+0000)^5
\end{aligned}$$

7.

$$\begin{aligned}
\mathbf{8281} &= (82+8+1)^2\\
\mathbf{982081} &= (982+08+1)^2\\
\mathbf{99820081} &= (9982+008+1)^2\\
\mathbf{9998200081} &= (99982+0008+1)^2
\end{aligned}$$

8.

$$\begin{aligned}
\mathbf{11881} &= (118-8-1)^2\\
\mathbf{1018081} &= (1018-08-1)^2\\
\mathbf{100180081} &= (10018-008-1)^2\\
\mathbf{10001800081} &= (100018-0008-1)^2
\end{aligned}$$

9.

$$\begin{aligned}
\mathbf{14641} &= (14-6+4-1)^4\\
\mathbf{104060401} &= (104-06+04-01)^4\\
\mathbf{1004006004001} &= (1004-006+004-01)^4\\
\mathbf{10004000600040001} &= (10004-0006+004-01)^4
\end{aligned}$$

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10.

$$\mathbf{39204} = (3-9+204)^2$$
$$\mathbf{399920004} = (3-9+9-9+20004)^2$$
$$\mathbf{3999992000004} = (3-9+99-99+2000004)^2$$
$$\mathbf{39999999200000004} = (3-9+999-999+200000004)^2$$

11.

$$\mathbf{245025} = (2-4+502-5)^2$$
$$\mathbf{2499500025} = (2-4+9-9+50002-5)^2$$
$$\mathbf{24999950000025} = (2-4+99-99+5000002-5)^2$$
$$\mathbf{249999995000000025} = (2-4+999-999+500000002-5)^2$$

12.

$$\mathbf{363609} = (3-6-3+609)^2$$
$$\mathbf{36036009} = (3-6-03+6009)^2$$
$$\mathbf{3600360009} = (3-6-003+60009)^2$$
$$\mathbf{360003600009} = (3-6-0003+600009)^2$$

13.

$$\mathbf{390625} = (3-9+06+25)^4$$
$$\mathbf{3906250000} = (3-9+06+250+000)^4$$
$$\mathbf{39062500000000} = (3-9+06+2500+000+000)^4$$
$$\mathbf{390625000000000000} = (3-9+06+25000+000+000+000)^4$$

14.

$$\mathbf{644809} = (-6+4-4+809)^2$$
$$\mathbf{64048009} = (-6+4-04+8009)^2$$
$$\mathbf{6400480009} = (-6+4-004+80009)^2$$
$$\mathbf{640004800009} = (-6+4-0004+800009)^2$$

15.

$$\mathbf{648025} = (-6+4+802+5)^2$$
$$\mathbf{64080025} = (-6+4+08002+5)^2$$
$$\mathbf{6400800025} = (-6+4+0080002+5)^2$$
$$\mathbf{640008000025} = (-6+4+000800002+5)^2$$

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16.

$$\begin{aligned}
\mathbf{912025} &= (910+20+25)^2\\
\mathbf{99120025} &= (9910+20+025)^2\\
\mathbf{9991200025} &= (99910+20+0025)^2\\
\mathbf{999912000025} &= (999910+20+00025)^2
\end{aligned}$$

17.

$$\begin{aligned}
\mathbf{970299} &= (97+02+9-9)^3\\
\mathbf{999700029999} &= (9997+0002+99-99)^3\\
\mathbf{999997000002999999} &= (999997+000002+999-999)^3\\
\mathbf{999999970000000299999999} &= (99999997+00000002+9999-9999)^3
\end{aligned}$$

18.

$$\begin{aligned}
\mathbf{972196} &= (972-1+9+6)^2\\
\mathbf{99720196} &= (9972-01+9+6)^2\\
\mathbf{9997200196} &= (99972-001+9+6)^2\\
\mathbf{999972000196} &= (999972-0001+9+6)^2
\end{aligned}$$

19.

$$\begin{aligned}
\mathbf{978121} &= (978+12-1)^2\\
\mathbf{99780121} &= (9978+012-1)^2\\
\mathbf{9997800121} &= (99978+0012-1)^2\\
\mathbf{999978000121} &= (999978+00012-1)^2
\end{aligned}$$

20.

$$\begin{aligned}
\mathbf{980100} &= (980+10+0)^2\\
\mathbf{99800100} &= (9980+010+0)^2\\
\mathbf{9998000100} &= (99980+0010+0)^2\\
\mathbf{999980000100} &= (999980+00010+0)^2
\end{aligned}$$

21.

$$\begin{aligned}
\mathbf{1020100} &= (1020-10+0)^2\\
\mathbf{100200100} &= (10020-010+0)^2\\
\mathbf{10002000100} &= (100020-0010+0)^2\\
\mathbf{1000020000100} &= (1000020-00010+0)^2
\end{aligned}$$

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22.

$$\begin{aligned}
\mathbf{1022121} &= (1022 - 12 + 1)^2 \\
\mathbf{100220121} &= (10022 - 012 + 1)^2 \\
\mathbf{10002200121} &= (100022 - 0012 + 1)^2 \\
\mathbf{1000022000121} &= (1000022 - 00012 + 1)^2
\end{aligned}$$

23.

$$\begin{aligned}
\mathbf{1028196} &= (1028 + 1 - 9 - 6)^2 \\
\mathbf{100280196} &= (10028 + 01 - 9 - 6)^2 \\
\mathbf{10002800196} &= (100028 + 001 - 9 - 6)^2 \\
\mathbf{1000028000196} &= (1000028 + 0001 - 9 - 6)^2
\end{aligned}$$

24.

$$\begin{aligned}
\mathbf{1061208} &= (106 - 12 + 08)^3 \\
\mathbf{1006012008} &= (1006 - 012 + 008)^3 \\
\mathbf{1000600120008} &= (10006 - 0012 + 0008)^3 \\
\mathbf{1000060001200008} &= (100006 - 00012 + 00008)^3
\end{aligned}$$

25.

$$\begin{aligned}
\mathbf{15944049} &= (-1 - 59 + 4 + 4049)^2 \\
\mathbf{159994400049} &= (-1 - 59 + 9 - 9 + 4 + 400049)^2 \\
\mathbf{1599999440000049} &= (-1 - 59 + 99 - 99 + 4 + 40000049)^2 \\
\mathbf{15999999944000000049} &= (-1 - 59 + 999 - 999 + 4 + 4000000049)^2
\end{aligned}$$

26.

$$\begin{aligned}
\mathbf{25150225} &= (2 - 5 + 1 + 5022 - 5)^2 \\
\mathbf{2501500225} &= (2 - 5 + 01 + 50022 - 5)^2 \\
\mathbf{250015000225} &= (2 - 5 + 001 + 500022 - 5)^2 \\
\mathbf{25000150000225} &= (2 - 5 + 0001 + 5000022 - 5)^2
\end{aligned}$$

27.

$$\begin{aligned}
\mathbf{25502500} &= (25 + 5025 + 00)^2 \\
\mathbf{2505002500} &= (25 + 050025 + 00)^2 \\
\mathbf{250050002500} &= (25 + 00500025 + 00)^2 \\
\mathbf{25000500002500} &= (25 + 0005000025 + 00)^2
\end{aligned}$$

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28.

$$\mathbf{28005264} = (28 + 005264)^2$$
$$\mathbf{2800526400} = (280 + 052640 + 0)^2$$
$$\mathbf{280052640000} = (2800 + 526400 + 00)^2$$
$$\mathbf{28005264000000} = (28000 + 5264000 + 000)^2$$

29.

$$\mathbf{35916049} = (35 - 91 + 6049)^2$$
$$\mathbf{359991600049} = (35 + 9 - 9 - 91 + 600049)^2$$
$$\mathbf{3599999160000049} = (35 + 99 - 99 - 91 + 60000049)^2$$
$$\mathbf{35999999916000000049} = (35 + 999 - 999 - 91 + 6000000049)^2$$

30.

$$\mathbf{35976004} = (-3 - 5 + 9 - 7 + 6004)^2$$
$$\mathbf{359997600004} = (-3 - 5 + 9 - 9 + 9 - 7 + 600004)^2$$
$$\mathbf{3599999760000004} = (-3 - 5 + 99 - 99 + 9 - 7 + 60000004)^2$$
$$\mathbf{35999999976000000004} = (-3 - 5 + 999 - 999 + 9 - 7 + 6000000004)^2$$

31.

$$\mathbf{63968004} = (6 + 3 - 9 - 6 + 8004)^2$$
$$\mathbf{639996800004} = (6 + 3 + 9 - 9 - 9 - 6 + 800004)^2$$
$$\mathbf{6399999680000004} = (6 + 3 + 99 - 99 - 9 - 6 + 80000004)^2$$
$$\mathbf{63999999968000000004} = (6 + 3 + 999 - 999 - 9 - 6 + 8000000004)^2$$

32.

$$\mathbf{64480900} = (-64 + 4 + 8090 + 0)^2$$
$$\mathbf{6404800900} = (-64 + 4 + 080090 + 0)^2$$
$$\mathbf{640048000900} = (-64 + 4 + 00800090 + 0)^2$$
$$\mathbf{64000480000900} = (-64 + 4 + 0008000090 + 0)^2$$

33.

$$\mathbf{81090025} = (8 - 10 + 9002 + 5)^2$$
$$\mathbf{8100900025} = (8 - 10 + 090002 + 5)^2$$
$$\mathbf{810009000025} = (8 - 10 + 00900002 + 5)^2$$
$$\mathbf{81000090000025} = (8 - 10 + 0009000002 + 5)^2$$

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34.

$$\mathbf{96059601} = (96 + 05 - 9 + 6 + 01)^4$$
$$\mathbf{9996000599960001} = (9996 + 0005 - 9 + 9 - 9 + 6 + 0001)^4$$
$$\mathbf{999996000005999996000001} = (999996 + 000005 - 9 + 99 - 99 + 6 + 000001)^4$$
$$\mathbf{99999996000000059999999600000001} = (99999996 + 00000005 - 9 + 999 - 999 + 6 + 00000001)^4$$

35.

$$\mathbf{98029801} = (9802 + 98 + 01)^2$$
$$\mathbf{9980209801} = (99802 + 098 + 01)^2$$
$$\mathbf{999802009801} = (999802 + 0098 + 01)^2$$
$$\mathbf{99998020009801} = (9999802 + 00098 + 01)^2$$

36.

$$\mathbf{98188281} = (9818 + 82 + 8 + 1)^2$$
$$\mathbf{9981808281} = (99818 + 082 + 8 + 1)^2$$
$$\mathbf{999818008281} = (999818 + 0082 + 8 + 1)^2$$
$$\mathbf{99998180008281} = (9999818 + 00082 + 8 + 1)^2$$

37.

$$\mathbf{98287396} = (9828 - 7 - 3 + 96)^2$$
$$\mathbf{9982807396} = (99828 - 07 - 3 + 96)^2$$
$$\mathbf{999828007396} = (999828 - 007 - 3 + 96)^2$$
$$\mathbf{99998280007396} = (9999828 - 0007 - 3 + 96)^2$$

38.

$$\mathbf{98366724} = (9836 + 6 + 72 + 4)^2$$
$$\mathbf{9983606724} = (99836 + 06 + 72 + 4)^2$$
$$\mathbf{999836006724} = (999836 + 006 + 72 + 4)^2$$
$$\mathbf{99998360006724} = (9999836 + 0006 + 72 + 4)^2$$

39.

$$\mathbf{98446084} = (9844 - 6 + 084)^2$$
$$\mathbf{9984406084} = (99844 - 06 + 084)^2$$
$$\mathbf{999844006084} = (999844 - 006 + 084)^2$$
$$\mathbf{99998440006084} = (9999844 - 0006 + 084)^2$$

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40.

$$\begin{aligned}
\mathbf{98485776} &= (9848+5+77-6)^2\\
\mathbf{9984805776} &= (99848+05+77-6)^2\\
\mathbf{999848005776} &= (999848+005+77-6)^2\\
\mathbf{99998480005776} &= (9999848+0005+77-6)^2
\end{aligned}$$

41.

$$\begin{aligned}
\mathbf{98743969} &= (9874+3-9+69)^2\\
\mathbf{9987403969} &= (99874+03-9+69)^2\\
\mathbf{999874003969} &= (999874+003-9+69)^2\\
\mathbf{99998740003969} &= (9999874+0003-9+69)^2
\end{aligned}$$

42.

$$\begin{aligned}
\mathbf{98843364} &= (9884-3-3+64)^2\\
\mathbf{9988403364} &= (99884-03-3+64)^2\\
\mathbf{999884003364} &= (999884-003-3+64)^2\\
\mathbf{99998840003364} &= (9999884-0003-3+64)^2
\end{aligned}$$

43.

$$\begin{aligned}
\mathbf{99102025} &= (9910+20+25)^2\\
\mathbf{9991002025} &= (99910+020+25)^2\\
\mathbf{999910002025} &= (999910+0020+25)^2\\
\mathbf{99999100002025} &= (9999910+00020+25)^2
\end{aligned}$$

44.

$$\begin{aligned}
\mathbf{99121936} &= (9912-1+9+36)^2\\
\mathbf{9991201936} &= (99912-01+9+36)^2\\
\mathbf{999912001936} &= (999912-001+9+36)^2\\
\mathbf{99999120001936} &= (9999912-0001+9+36)^2
\end{aligned}$$

45.

$$\begin{aligned}
\mathbf{99281296} &= (9928+1+29+6)^2\\
\mathbf{9992801296} &= (99928+01+29+6)^2\\
\mathbf{999928001296} &= (999928+001+29+6)^2\\
\mathbf{99999280001296} &= (9999928+0001+29+6)^2
\end{aligned}$$

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46.

$$\mathbf{100721296} = (10072 - 1 - 29 - 6)^2$$
$$\mathbf{10007201296} = (100072 - 01 - 29 - 6)^2$$
$$\mathbf{1000072001296} = (1000072 - 001 - 29 - 6)^2$$
$$\mathbf{100000720001296} = (10000072 - 0001 - 29 - 6)^2$$

47.

$$\mathbf{100881936} = (10088 + 1 - 9 - 36)^2$$
$$\mathbf{10008801936} = (100088 + 01 - 9 - 36)^2$$
$$\mathbf{1000088001936} = (1000088 + 001 - 9 - 36)^2$$
$$\mathbf{100000880001936} = (10000088 + 0001 - 9 - 36)^2$$

48.

$$\mathbf{108243216} = (108 - 2 - 4 + 3 + 2 + 1 - 6)^4$$
$$\mathbf{1008024032016} = (1008 - 02 - 4 + 3 + 2 + 01 - 6)^4$$
$$\mathbf{10008002400320016} = (10008 - 002 - 4 + 3 + 2 + 001 - 6)^4$$
$$\mathbf{100008000240003200016} = (100008 - 0002 - 4 + 3 + 2 + 0001 - 6)^4$$

49.

$$\mathbf{100902025} = (10090 - 20 - 25)^2$$
$$\mathbf{10009002025} = (100090 - 020 - 25)^2$$
$$\mathbf{1000090002025} = (1000090 - 0020 - 25)^2$$
$$\mathbf{100000900002025} = (10000090 - 00020 - 25)^2$$

50.

$$\mathbf{101103025} = (10110 - 30 - 25)^2$$
$$\mathbf{10011003025} = (100110 - 030 - 25)^2$$
$$\mathbf{1000110003025} = (1000110 - 0030 - 25)^2$$
$$\mathbf{100001100003025} = (10000110 - 00030 - 25)^2$$

51.

$$\mathbf{101163364} = (10116 + 3 + 3 - 64)^2$$
$$\mathbf{10011603364} = (100116 + 03 + 3 - 64)^2$$
$$\mathbf{1000116003364} = (1000116 + 003 + 3 - 64)^2$$
$$\mathbf{100001160003364} = (10000116 + 0003 + 3 - 64)^2$$

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52.

$$\begin{aligned}
\mathbf{101263969} &= (10126 - 3 + 9 - 69)^2 \\
\mathbf{10012603969} &= (100126 - 03 + 9 - 69)^2 \\
\mathbf{1000126003969} &= (1000126 - 003 + 9 - 69)^2 \\
\mathbf{100001260003969} &= (10000126 - 0003 + 9 - 69)^2
\end{aligned}$$

53.

$$\begin{aligned}
\mathbf{101525776} &= (10152 - 5 - 77 + 6)^2 \\
\mathbf{10015205776} &= (100152 - 05 - 77 + 6)^2 \\
\mathbf{1000152005776} &= (1000152 - 005 - 77 + 6)^2 \\
\mathbf{100001520005776} &= (10000152 - 0005 - 77 + 6)^2
\end{aligned}$$

54.

$$\begin{aligned}
\mathbf{101566084} &= (10156 + 6 - 084)^2 \\
\mathbf{10015606084} &= (100156 + 06 - 084)^2 \\
\mathbf{1000156006084} &= (1000156 + 006 - 084)^2 \\
\mathbf{100001560006084} &= (10000156 + 0006 - 084)^2
\end{aligned}$$

55.

$$\begin{aligned}
\mathbf{101646724} &= (10164 - 6 - 72 - 4)^2 \\
\mathbf{10016406724} &= (100164 - 06 - 72 - 4)^2 \\
\mathbf{1000164006724} &= (1000164 - 006 - 72 - 4)^2 \\
\mathbf{100001640006724} &= (10000164 - 0006 - 72 - 4)^2
\end{aligned}$$

56.

$$\begin{aligned}
\mathbf{101727396} &= (10172 + 7 + 3 - 96)^2 \\
\mathbf{10017207396} &= (100172 + 07 + 3 - 96)^2 \\
\mathbf{1000172007396} &= (1000172 + 007 + 3 - 96)^2 \\
\mathbf{100001720007396} &= (10000172 + 0007 + 3 - 96)^2
\end{aligned}$$

57.

$$\begin{aligned}
\mathbf{101828281} &= (10182 - 82 - 8 - 1)^2 \\
\mathbf{10018208281} &= (100182 - 082 - 8 - 1)^2 \\
\mathbf{1000182008281} &= (1000182 - 0082 - 8 - 1)^2 \\
\mathbf{100001820008281} &= (10000182 - 00082 - 8 - 1)^2
\end{aligned}$$

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58.

$$\begin{aligned}
\mathbf{101989801} &= (10198 - 98 - 01)^2 \\
\mathbf{10019809801} &= (100198 - 098 - 01)^2 \\
\mathbf{1000198009801} &= (1000198 - 0098 - 01)^2 \\
\mathbf{100001980009801} &= (10000198 - 00098 - 01)^2
\end{aligned}$$

59.

$$\begin{aligned}
\mathbf{102475129} &= (10247 + 5 - 129)^2 \\
\mathbf{10024615129} &= (100247 + 05 - 129)^2 \\
\mathbf{1000246015129} &= (1000247 + 005 - 129)^2 \\
\mathbf{100002460015129} &= (10000247 + 0005 - 129)^2
\end{aligned}$$

60.

$$\begin{aligned}
\mathbf{104346225} &= (10434 + 6 - 225)^2 \\
\mathbf{10043046225} &= (100434 + 06 - 225)^2 \\
\mathbf{1000430046225} &= (1000434 + 006 - 225)^2 \\
\mathbf{100004300046225} &= (10000434 + 0006 - 225)^2
\end{aligned}$$

61.

$$\begin{aligned}
\mathbf{108243216} &= (108 - 24 + 3 + 21 - 6)^4 \\
\mathbf{1008024032016} &= (1008 - 024 + 3 + 21 - 6)^4 \\
\mathbf{10008002400320016} &= (10008 - 0024 + 3 + 21 - 6)^4 \\
\mathbf{1000080002400032000 16} &= (100008 - 00024 + 3 + 21 - 6)^4
\end{aligned}$$

62.

$$\begin{aligned}
\mathbf{121110025} &= (1 - 2 - 1 + 11002 + 5)^2 \\
\mathbf{12101100025} &= (1 - 2 - 1 + 0110002 + 5)^2 \\
\mathbf{1210011000025} &= (1 - 2 - 1 + 001100002 + 5)^2 \\
\mathbf{121000110000025} &= (1 - 2 - 1 + 00011000002 + 5)^2
\end{aligned}$$

63.

$$\begin{aligned}
\mathbf{169130025} &= (1 + 6 - 9 + 13002 + 5)^2 \\
\mathbf{16901300025} &= (1 + 6 - 9 + 0130002 + 5)^2 \\
\mathbf{1690013000025} &= (1 + 6 - 9 + 001300002 + 5)^2 \\
\mathbf{169000130000025} &= (1 + 6 - 9 + 00013000002 + 5)^2
\end{aligned}$$

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64.

$$\mathbf{196140025} = (1-9+6+14002+5)^2$$
$$\mathbf{19601400025} = (1-9+6+0140002+5)^2$$
$$\mathbf{1960014000025} = (1-9+6+001400002+5)^2$$
$$\mathbf{196000140000025} = (1-9+6+00014000002+5)^2$$

65.

$$\mathbf{361190025} = (3+6-1+19002-5)^2$$
$$\mathbf{36101900025} = (3+6-1+0190002-5)^2$$
$$\mathbf{3610019000025} = (3+6-1+001900002-5)^2$$
$$\mathbf{361000190000025} = (3+6-1+00019000002-5)^2$$

66.

$$\mathbf{484220025} = (4+8-4+22002-5)^2$$
$$\mathbf{48402200025} = (4+8-4+0220002-5)^2$$
$$\mathbf{4840022000025} = (4+8-4+002200002-5)^2$$
$$\mathbf{484000220000025} = (4+8-4+00022000002-5)^2$$

67.

$$\mathbf{529230025} = (5+2-9+23002+5)^2$$
$$\mathbf{52902300025} = (5+2-9+0230002+5)^2$$
$$\mathbf{5290023000025} = (5+2-9+002300002+5)^2$$
$$\mathbf{529000230000025} = (5+2-9+00023000002+5)^2$$

68.

$$\mathbf{576240025} = (-5+7+6+24002-5)^2$$
$$\mathbf{57602400025} = (-5+7+6+0240002-5)^2$$
$$\mathbf{5760024000025} = (-5+7+6+002400002-5)^2$$
$$\mathbf{576000240000025} = (-5+7+6+00024000002-5)^2$$

69.

$$\mathbf{970299000} = (970+29-9+000)^3$$
$$\mathbf{999700029999000} = (99970+0029-9+9-9+000)^3$$
$$\mathbf{999997000002999999000} = (9999970+000029-9+99-99+000)^3$$
$$\mathbf{999999970000000299999999000} = (999999970+00000029-9+999-999+000)^3$$

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70.

$$\begin{aligned}
\mathbf{982107784} &= (982+10+7+7-8-4)^3\\
\mathbf{998201079784} &= (9982+010+7+7-8-4)^3\\
\mathbf{999820010799784} &= (99982+0010+7+7-8-4)^3\\
\mathbf{999982000107999784} &= (999982+00010+7+7-8-4)^3
\end{aligned}$$

71.

$$\begin{aligned}
\mathbf{991026973} &= (991+02-69+73)^3\\
\mathbf{999910002699973} &= (99991+0002-69+9-9+73)^3\\
\mathbf{999999100000269999973} &= (9999991+000002-69+99-99+73)^3\\
\mathbf{999999991000000026999999973} &= (999999991+00000002-69+999-999+73)^3
\end{aligned}$$

72.

$$\begin{aligned}
\mathbf{994011992} &= (994+01+1+9-9+2)^3\\
\mathbf{999940001199992} &= (99994+0001+1+99-99+2)^3\\
\mathbf{999999400000119999992} &= (9999994+000001+1+999-999+2)^3\\
\mathbf{999999994000000011999999992} &= (999999994+00000001+1+9999-9999+2)^3
\end{aligned}$$

73.

$$\begin{aligned}
\mathbf{1024320025} &= (10+2-4+32002-5)^2\\
\mathbf{102403200025} &= (10+2-4+0320002-5)^2\\
\mathbf{10240032000025} &= (10+2-4+003200002-5)^2\\
\mathbf{1024000320000025} &= (10+2-4+00032000002-5)^2
\end{aligned}$$

74.

$$\begin{aligned}
\mathbf{1089330025} &= (-1+08-9+33002+5)^2\\
\mathbf{108903300025} &= (-1+08-9+0330002+5)^2\\
\mathbf{10890033000025} &= (-1+08-9+003300002+5)^2\\
\mathbf{1089000330000025} &= (-1+08-9+00033000002+5)^2
\end{aligned}$$

75.

$$\begin{aligned}
\mathbf{1015075125} &= (1015-07+5-1-2-5)^3\\
\mathbf{1001500750125} &= (10015-007+5-1-2-5)^3\\
\mathbf{1000150007500125} &= (100015-0007+5-1-2-5)^3\\
\mathbf{1000015000075000125} &= (1000015-00007+5-1-2-5)^3
\end{aligned}$$

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76.

$$\mathbf{1018108216} = (1018 + 10 - 8 + 2 - 16)^3$$
$$\mathbf{1001801080216} = (10018 + 010 - 08 + 2 - 16)^3$$
$$\mathbf{1000180010800216} = (100018 + 0010 - 008 + 2 - 16)^3$$
$$\mathbf{1000018000108000216} = (1000018 + 00010 - 0008 + 2 - 16)^3$$

77.

$$\mathbf{1021147343} = (1021 + 1 - 4 - 7 - 3 - 4 + 3)^3$$
$$\mathbf{1002101470343} = (10021 + 01 - 4 - 7 - 03 - 4 + 3)^3$$
$$\mathbf{1000210014700343} = (100021 + 001 - 4 - 7 - 003 - 4 + 3)^3$$
$$\mathbf{1000021000147000343} = (1000021 + 0001 - 4 - 7 - 0003 - 4 + 3)^3$$

78.

$$\mathbf{1024192512} = (1024 - 1 - 9 - 2 - 5 - 1 + 2)^3$$
$$\mathbf{1002401920512} = (10024 - 01 - 9 - 2 - 05 - 1 + 2)^3$$
$$\mathbf{1000240019200512} = (100024 - 001 - 9 - 2 - 005 - 1 + 2)^3$$
$$\mathbf{1000024000192000512} = (1000024 - 0001 - 9 - 2 - 0005 - 1 + 2)^3$$

79.

$$\mathbf{1024320025} = (10 + 2 - 4 + 32002 - 5)^2$$
$$\mathbf{102403200025} = (10 + 2 - 4 + 0320002 - 5)^2$$
$$\mathbf{10240032000025} = (10 + 2 - 4 + 003200002 - 5)^2$$
$$\mathbf{1024000320000025} = (10 + 2 - 4 + 00032000002 - 5)^2$$

80.

$$\mathbf{1027243729} = (1027 + 2 + 43 - 72 + 9)^3$$
$$\mathbf{1002702430729} = (10027 + 2 + 043 - 072 + 9)^3$$
$$\mathbf{1000270024300729} = (100027 + 2 + 0043 - 0072 + 9)^3$$
$$\mathbf{1000027000243000729} = (1000027 + 2 + 00043 - 00072 + 9)^3$$

81.

$$\mathbf{1030301000} = (1030 - 30 + 10 + 00)^3$$
$$\mathbf{1003003001000} = (10030 - 030 + 010 + 00)^3$$
$$\mathbf{1000300030001000} = (100030 - 0030 + 0010 + 00)^3$$
$$\mathbf{1000030000300001000} = (1000030 - 00030 + 00010 + 00)^3$$

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82.

$$\mathbf{1089330025} = (-1 + 08 - 9 + 33002 + 5)^2$$
$$\mathbf{108903300025} = (-1 + 008 - 9 + 330002 + 5)^2$$
$$\mathbf{10890033000025} = (-1 + 0008 - 9 + 3300002 + 5)^2$$
$$\mathbf{1089000330000025} = (-1 + 00008 - 9 + 33000002 + 5)^2$$

83.

$$\mathbf{1156340025} = (-1 + 15 - 6 + 34002 - 5)^2$$
$$\mathbf{115603400025} = (-1 + 15 - 6 + 0340002 - 5)^2$$
$$\mathbf{11560034000025} = (-1 + 15 - 6 + 003400002 - 5)^2$$
$$\mathbf{1156000340000025} = (-1 + 15 - 6 + 00034000002 - 5)^2$$

84.

$$\mathbf{1225350025} = (-1 + 2 + 2 - 5 + 35002 + 5)^2$$
$$\mathbf{122503500025} = (-1 + 2 + 2 - 5 + 0350002 + 5)^2$$
$$\mathbf{12250035000025} = (-1 + 2 + 2 - 5 + 003500002 + 5)^2$$
$$\mathbf{1225000350000025} = (-1 + 2 + 2 - 5 + 00035000002 + 5)^2$$

85.

$$\mathbf{1296360025} = (-1 + 2 - 9 + 6 + 36002 + 5)^2$$
$$\mathbf{129603600025} = (-1 + 2 - 9 + 6 + 0360002 + 5)^2$$
$$\mathbf{12960036000025} = (-1 + 2 - 9 + 6 + 003600002 + 5)^2$$
$$\mathbf{1296000360000025} = (-1 + 2 - 9 + 6 + 00036000002 + 5)^2$$

86.

$$\mathbf{1369370025} = (13 - 6 - 9 + 37002 + 5)^2$$
$$\mathbf{136903700025} = (13 - 6 - 9 + 0370002 + 5)^2$$
$$\mathbf{13690037000025} = (13 - 6 - 9 + 003700002 + 5)^2$$
$$\mathbf{1369000370000025} = (13 - 6 - 9 + 00037000002 + 5)^2$$

87.

$$\mathbf{1568239201} = (1 - 5 + 6 - 8 - 2 - 3 + 9 + 201)^4$$
$$\mathbf{159968002399920001} = (1 - 5 + 9 - 9 + 6 - 8 - 002 - 3 + 9 + 9 - 9 + 20001)^4$$
$$\mathbf{15999968000023999992000001} = (1 - 5 + 99 - 99 + 6 - 8 - 00002 - 3 + 9 + 99 - 99 + 2000001)^4$$
$$\mathbf{1599999968000000239999999200000001} = (1 - 5 + 999 - 999 + 6 - 8 - 0000002 - 3 + 9 + 999 - 999 + 200000001)^4$$

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88.

$$\mathbf{1599840004} = (-1+5-9-9+8+40004)^2$$
$$\mathbf{15999984000004} = (-1+5-9-9+9-9+8+4000004)^2$$
$$\mathbf{159999998400000004} = (-1+5-9-9+99-99+8+400000004)^2$$
$$\mathbf{15999999984000000004} = (-1+5-9-9+999-999+8+4000000004)^2$$

89.

$$\mathbf{1681410025} = (1+6-8-1+41002+5)^2$$
$$\mathbf{168104100025} = (1+6-8-1+0410002+5)^2$$
$$\mathbf{16810041000025} = (1+6-8-1+004100002+5)^2$$
$$\mathbf{1681000410000025} = (1+6-8-1+00041000002+5)^2$$

90.

$$\mathbf{1764420025} = (1+7-6-4+42002+5)^2$$
$$\mathbf{176404200025} = (1+7-6-4+0420002+5)^2$$
$$\mathbf{17640042000025} = (1+7-6-4+004200002+5)^2$$
$$\mathbf{1764000420000025} = (1+7-6-4+00042000002+5)^2$$

91.

$$\mathbf{1849430025} = (1-8-4+9+43002+5)^2$$
$$\mathbf{184904300025} = (1-8-4+9+0430002+5)^2$$
$$\mathbf{18490043000025} = (1-8-4+9+004300002+5)^2$$
$$\mathbf{1849000430000025} = (1-8-4+9+00043000002+5)^2$$

92.

$$\mathbf{2116460025} = (2+1-1+6+46002-5)^2$$
$$\mathbf{211604600025} = (2+1-1+6+0460002-5)^2$$
$$\mathbf{21160046000025} = (2+1-1+6+004600002-5)^2$$
$$\mathbf{2116000460000025} = (2+1-1+6+00046000002-5)^2$$

93.

$$\mathbf{2499500025} = (2-4+9-9+50002-5)^2$$
$$\mathbf{24999950000025} = (2-4+99-99+5000002-5)^2$$
$$\mathbf{249999995000000025} = (2-4+999-999+500000002-5)^2$$
$$\mathbf{2499999999500000000025} = (2-4+9999-9999+50000000002-5)^2$$

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94.

$$\mathbf{2509408836} = (-2 + 50940 - 8 - 836)^2$$
$$\mathbf{250094008836} = (-2 + 500940 - 08 - 836)^2$$
$$\mathbf{25000940008836} = (-2 + 5000940 - 008 - 836)^2$$
$$\mathbf{2500009400008836} = (-2 + 50000940 - 0008 - 836)^2$$

95.

$$\mathbf{2916540025} = (2 - 9 - 1 + 6 + 54002 + 5)^2$$
$$\mathbf{291605400025} = (2 - 9 - 1 + 6 + 0540002 + 5)^2$$
$$\mathbf{29160054000025} = (2 - 9 - 1 + 6 + 005400002 + 5)^2$$
$$\mathbf{2916000540000025} = (2 - 9 - 1 + 6 + 00054000002 + 5)^2$$

96.

$$\mathbf{3249570025} = (-3 - 2 + 4 + 9 + 57002 - 5)^2$$
$$\mathbf{324905700025} = (-3 - 2 + 4 + 9 + 0570002 - 5)^2$$
$$\mathbf{32490057000025} = (-3 - 2 + 4 + 9 + 005700002 - 5)^2$$
$$\mathbf{3249000570000025} = (-3 - 2 + 4 + 9 + 00057000002 - 5)^2$$

97.

$$\mathbf{3364580025} = (3 - 3 - 6 + 4 + 58002 + 5)^2$$
$$\mathbf{336405800025} = (3 - 3 - 6 + 4 + 0580002 + 5)^2$$
$$\mathbf{33640058000025} = (3 - 3 - 6 + 4 + 005800002 + 5)^2$$
$$\mathbf{3364000580000025} = (3 - 3 - 6 + 4 + 00058000002 + 5)^2$$

98.

$$\mathbf{3364580025} = (3 + 3 + 6 - 4 + 58002 - 5)^2$$
$$\mathbf{336405800025} = (3 + 3 + 6 - 4 + 0580002 - 5)^2$$
$$\mathbf{33640058000025} = (3 + 3 + 6 - 4 + 005800002 - 5)^2$$
$$\mathbf{3364000580000025} = (3 + 3 + 6 - 4 + 00058000002 - 5)^2$$

99.

$$\mathbf{3481590025} = (3 + 4 - 8 - 1 + 59002 + 5)^2$$
$$\mathbf{348105900025} = (3 + 4 - 8 - 1 + 0590002 + 5)^2$$
$$\mathbf{34810059000025} = (3 + 4 - 8 - 1 + 005900002 + 5)^2$$
$$\mathbf{3481000590000025} = (3 + 4 - 8 - 1 + 00059000002 + 5)^2$$

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100.

$$\mathbf{3603600900} = (3 - 60 - 3 + 60090 + 0)^2$$
$$\mathbf{360036000900} = (3 - 60 - 3 + 0600090 + 0)^2$$
$$\mathbf{36000360000900} = (3 - 60 - 3 + 006000090 + 0)^2$$
$$\mathbf{3600003600000900} = (3 - 60 - 3 + 00060000090 + 0)^2$$

101.

$$\mathbf{390625} = (3 - 9 + 06 + 25)^4$$
$$\mathbf{3906250000} = (3 - 9 + 06 + 250 + 000)^4$$
$$\mathbf{39062500000000} = (3 - 9 + 06 + 2500 + 000 + 000)^4$$
$$\mathbf{3906250000000000000000} = (3 - 9 + 06 + 250000 + 000 + 000 + 000)^4$$

102.

$$\mathbf{4356660025} = (4 + 3 - 5 + 6 + 66002 - 5)^2$$
$$\mathbf{435606600025} = (4 + 3 - 5 + 6 + 0660002 - 5)^2$$
$$\mathbf{43560066000025} = (4 + 3 - 5 + 6 + 006600002 - 5)^2$$
$$\mathbf{4356000660000025} = (4 + 3 - 5 + 6 + 00066000002 - 5)^2$$

103.

$$\mathbf{4624680025} = (4 + 6 + 2 - 4 + 68002 - 5)^2$$
$$\mathbf{462406800025} = (4 + 6 + 2 - 4 + 0680002 - 5)^2$$
$$\mathbf{46240068000025} = (4 + 6 + 2 - 4 + 006800002 - 5)^2$$
$$\mathbf{4624000680000025} = (4 + 6 + 2 - 4 + 00068000002 - 5)^2$$

104.

$$\mathbf{4761690025} = (-4 + 7 - 6 + 1 + 69002 + 5)^2$$
$$\mathbf{476106900025} = (-4 + 7 - 6 + 1 + 0690002 + 5)^2$$
$$\mathbf{47610069000025} = (-4 + 7 - 6 + 1 + 006900002 + 5)^2$$
$$\mathbf{4761000690000025} = (-4 + 7 - 6 + 1 + 00069000002 + 5)^2$$

105.

$$\mathbf{4937170225} = (49 - 3 - 7 + 1 + 70225)^2$$
$$\mathbf{490371070225} = (49 - 03 - 7 + 1 + 700225)^2$$
$$\mathbf{49003710070225} = (49 - 003 - 7 + 1 + 7000225)^2$$
$$\mathbf{4900037100070225} = (49 - 0003 - 7 + 1 + 70000225)^2$$

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106.

$$\mathbf{5041710025} = (5+04-1+71002-5)^2$$
$$\mathbf{504107100025} = (5+04-1+0710002-5)^2$$
$$\mathbf{50410071000025} = (5+04-1+007100002-5)^2$$
$$\mathbf{5041000710000025} = (5+04-1+00071000002-5)^2$$

107.

$$\mathbf{5184720025} = (5-1+8-4+72002-5)^2$$
$$\mathbf{518407200025} = (5-1+8-4+0720002-5)^2$$
$$\mathbf{51840072000025} = (5-1+8-4+007200002-5)^2$$
$$\mathbf{5184000720000025} = (5-1+8-4+00072000002-5)^2$$

108.

$$\mathbf{5476740025} = (5+4-7+6+74002-5)^2$$
$$\mathbf{547607400025} = (5+4-7+6+0740002-5)^2$$
$$\mathbf{54760074000025} = (5+4-7+6+007400002-5)^2$$
$$\mathbf{5476000740000025} = (5+4-7+6+00074000002-5)^2$$

109.

$$\mathbf{5625750025} = (5+6+2-5+75002-5)^2$$
$$\mathbf{562507500025} = (5+6+2-5+0750002-5)^2$$
$$\mathbf{56250075000025} = (5+6+2-5+007500002-5)^2$$
$$\mathbf{5625000750000025} = (5+6+2-5+00075000002-5)^2$$

110.

$$\mathbf{6084780025} = (-6+08-4+78002+5)^2$$
$$\mathbf{608407800025} = (-6+08-04+780002+5)^2$$
$$\mathbf{60840078000025} = (-6+08-004+7800002+5)^2$$
$$\mathbf{6084000780000025} = (-6+08-0004+78000002+5)^2$$

111.

$$\mathbf{6396800400} = (-63+9-6+80040+0)^2$$
$$\mathbf{63999680000400} = (-63+9-9+9-6+8000040+0)^2$$
$$\mathbf{639999968000000400} = (-63+99-99+9-6+800000040+0)^2$$
$$\mathbf{6399999996800000000400} = (-63+999-999+9-6+80000000040+0)^2$$

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112.

$$\mathbf{6398880049} = (-63 - 9 + 8 + 8 + 80049)^2$$
$$\mathbf{63999888000049} = (-63 + 9 - 9 - 9 + 8 + 8 + 8000049)^2$$
$$\mathbf{639999988800000049} = (-63 + 99 - 99 - 9 + 8 + 8 + 800000049)^2$$
$$\mathbf{6399999998880000000049} = (-63 + 999 - 999 - 9 + 8 + 8 + 80000000049)^2$$

113.

$$\mathbf{6561810025} = (6 - 5 + 6 + 1 + 81002 - 5)^2$$
$$\mathbf{656108100025} = (6 - 5 + 6 + 1 + 0810002 - 5)^2$$
$$\mathbf{65610081000025} = (6 - 5 + 6 + 1 + 008100002 - 5)^2$$
$$\mathbf{6561000810000025} = (6 - 5 + 6 + 1 + 00081000002 - 5)^2$$

114.

$$\mathbf{7225850025} = (7 - 2 - 2 + 5 + 85002 - 5)^2$$
$$\mathbf{722508500025} = (7 - 2 - 2 + 5 + 850002 - 5)^2$$
$$\mathbf{72250085000025} = (7 - 2 - 2 + 5 + 8500002 - 5)^2$$
$$\mathbf{7225000850000025} = (7 - 2 - 2 + 5 + 85000002 - 5)^2$$

115.

$$\mathbf{7744880025} = (7 - 7 + 4 + 4 + 88002 - 5)^2$$
$$\mathbf{774408800025} = (7 - 7 + 4 + 4 + 0880002 - 5)^2$$
$$\mathbf{77440088000025} = (7 - 7 + 4 + 4 + 008800002 - 5)^2$$
$$\mathbf{7744000880000025} = (7 - 7 + 4 + 4 + 00088000002 - 5)^2$$

116.

$$\mathbf{8464920025} = (-8 - 4 + 6 + 4 + 92002 + 5)^2$$
$$\mathbf{846409200025} = (-8 - 4 + 6 + 4 + 0920002 + 5)^2$$
$$\mathbf{84640092000025} = (-8 - 4 + 6 + 4 + 009200002 + 5)^2$$
$$\mathbf{8464000920000025} = (-8 - 4 + 6 + 4 + 00092000002 + 5)^2$$

117.

$$\mathbf{9025950025} = (-9 + 02 + 5 + 95002 + 5)^2$$
$$\mathbf{902509500025} = (-9 + 02 + 5 + 0950002 + 5)^2$$
$$\mathbf{90250095000025} = (-9 + 02 + 5 + 009500002 + 5)^2$$
$$\mathbf{9025000950000025} = (-9 + 02 + 5 + 00095000002 + 5)^2$$

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118.

$$\mathbf{9039207968} = (90+39-20-79+68)^5$$
$$\mathbf{99900039992000799968} = (9990+0039+9-9-20-0079+9-9+68)^5$$
$$\mathbf{9999900000399999200000799999968} = (999990+000039+99-99-20-000079+99-99+68)^5$$
$$\mathbf{999999900000003999999920000000799999999968} = (99999990+00000039+999-999-20-00000079+999-999+68)^5$$

119.

$$\mathbf{9216960025} = (-9+2-1+6+96002+5)^2$$
$$\mathbf{921609600025} = (-9+2-1+6+0960002+5)^2$$
$$\mathbf{92160096000025} = (-9+2-1+6+009600002+5)^2$$
$$\mathbf{9216000960000025} = (-9+2-1+6+00096000002+5)^2$$

120.

$$\mathbf{9509900499} = (95+09-9+004+9-9)^5$$
$$\mathbf{99950009999000049999} = (9995+00099-99+00004+99-99)^5$$
$$\mathbf{9999950000099999900000049999999} = (999995+00000999-999+0000004+999-999)^5$$
$$\mathbf{999999950000000999999990000000049999999999} = (99999995+00000009999-9999+000000004+9999-9999)^5$$

121.

$$\mathbf{9801990025} = (-9+8-01+99002+5)^2$$
$$\mathbf{980109900025} = (-9+8-01+0990002+5)^2$$
$$\mathbf{98010099000025} = (-9+8-01+009900002+5)^2$$
$$\mathbf{9801000990000025} = (-9+8-01+00099000002+5)^2$$

122.

$$\mathbf{9940688209} = (99406+88+209)^2$$
$$\mathbf{999406088209} = (999406+088+209)^2$$
$$\mathbf{99994060088209} = (9999406+0088+209)^2$$
$$\mathbf{9999940600088209} = (99999406+00088+209)^2$$

123.

$$\mathbf{9942682369} = (99426-82+369)^2$$
$$\mathbf{999426082369} = (999426-082+369)^2$$
$$\mathbf{99994260082369} = (9999426-0082+369)^2$$
$$\mathbf{9999942600082369} = (99999426-00082+369)^2$$

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124.

$$\begin{aligned}
\mathbf{9953055225} &= (99530+5+5+225)^2\\
\mathbf{999530055225} &= (999530+05+5+225)^2\\
\mathbf{99995300055225} &= (9999530+005+5+225)^2\\
\mathbf{9999953000055225} &= (99999530+0005+5+225)^2
\end{aligned}$$

125.

$$\begin{aligned}
\mathbf{9957046225} &= (99570-4-6+225)^2\\
\mathbf{999570046225} &= (999570-04-6+225)^2\\
\mathbf{99995700046225} &= (9999570-004-6+225)^2\\
\mathbf{9999957000046225} &= (99999570-0004-6+225)^2
\end{aligned}$$

126.

$$\begin{aligned}
\mathbf{9960439204} &= (99604+3-9+204)^2\\
\mathbf{999604039204} &= (999604+03-9+204)^2\\
\mathbf{99996040039204} &= (9999604+003-9+204)^2\\
\mathbf{9999960400039204} &= (99999604+0003-9+204)^2
\end{aligned}$$

127.

$$\begin{aligned}
\mathbf{9973217956} &= (99732-1+79+56)^2\\
\mathbf{999732017956} &= (999732-01+79+56)^2\\
\mathbf{99997320017956} &= (9999732-001+79+56)^2\\
\mathbf{9999973200017956} &= (99999732-0001+79+56)^2
\end{aligned}$$

128.

$$\begin{aligned}
\mathbf{9973817161} &= (99738-1+71+61)^2\\
\mathbf{999738017161} &= (999738-01+71+61)^2\\
\mathbf{99997380017161} &= (9999738-001+71+61)^2\\
\mathbf{9999973800017161} &= (99999738-0001+71+61)^2
\end{aligned}$$

129.

$$\begin{aligned}
\mathbf{9975415129} &= (99754-1-5+129)^2\\
\mathbf{999754015129} &= (999754-01-5+129)^2\\
\mathbf{99997540015129} &= (9999754-001-5+129)^2\\
\mathbf{9999975400015129} &= (99999754-0001-5+129)^2
\end{aligned}$$

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130.

$$\begin{aligned}
\mathbf{9977212996} &= (99772 + 129 - 9 - 6)^2 \\
\mathbf{999772012996} &= (999772 + 0129 - 9 - 6)^2 \\
\mathbf{99997720012996} &= (9999772 + 00129 - 9 - 6)^2 \\
\mathbf{9999977200012996} &= (99999772 + 000129 - 9 - 6)^2
\end{aligned}$$

131.

$$\begin{aligned}
\mathbf{9978211881} &= (99782 + 118 - 8 - 1)^2 \\
\mathbf{999782011881} &= (999782 + 0118 - 8 - 1)^2 \\
\mathbf{99997820011881} &= (9999782 + 00118 - 8 - 1)^2 \\
\mathbf{9999978200011881} &= (99999782 + 000118 - 8 - 1)^2
\end{aligned}$$

132.

$$\begin{aligned}
\mathbf{9979810201} &= (99798 + 102 - 01)^2 \\
\mathbf{999798010201} &= (999798 + 0102 - 01)^2 \\
\mathbf{99997980010201} &= (9999798 + 00102 - 01)^2 \\
\mathbf{9999979800010201} &= (99999798 + 000102 - 01)^2
\end{aligned}$$

133.

$$\begin{aligned}
\mathbf{9980010000} &= (99800 + 100 + 00)^2 \\
\mathbf{999800010000} &= (999800 + 0100 + 00)^2 \\
\mathbf{99998000010000} &= (9999800 + 00100 + 00)^2 \\
\mathbf{9999980000010000} &= (99999800 + 000100 + 00)^2
\end{aligned}$$

Acknowledgement

The author is thankful to T.J. Eckman, Georgia, USA (email: jeek@jeek.net) in programming the script to develop these representations.

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