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S-gonal and Centered Polygonal Selfie Numbers, and Connections with Binomials Coefficients

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Abstract

During past years, author studied different types of ***"selfie numbers"****, with extra operations as, factorial, square-root, Fibonacci sequence values, binomials coefficients, etc. This paper brings* ***"selfie numbers"*** *in terms of* ***"s-gonal numbers"*** *and* ***"centered polygonal numbers"****. S-gonal numbers, in particular lead us to* ***triangle, square, pentagonal, hexagonal*** *sides, etc. The centered polygonal numbers are the extensions of s-gonal numbers. The work is done in digit's order and its reverse. A combine study of binomial coefficients, s-gonal numbers and centered polygonal numbers is also made.*

Contents

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1 Selife Numbers

Recently, 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**. Examples of selfie numbers with **Fibonacci sequence**, **Triangular numbers**, **binomial coefficients**, etc. are also given.

1.1 Selfie Numbers with Factorial

This subsection brings **selfie numbers** with use of factorial. See below some examples:

$$145 = 1! + 4! + 5!.$$
$$733 = 7 + 3!! + 3!.$$
$$5177 = 5! + 17 + 7!.$$
$$363239 = 36 + 323 + 9!.$$
$$363269 = 363 + 26 + 9!.$$
$$403199 = 40319 + 9!.$$

$$1463 = -1! + 4! + 6! + 3!!.$$
$$10077 = -1! - 0! - 0! + 7! + 7!.$$
$$40585 = 4! + 0! + 5! + 8! + 5!.$$
$$80518 = 8! - 0! - 5! - 1! + 8!.$$
$$317489 = -3! - 1! - 7! - 4! - 8! + 9!.$$
$$352797 = -3! + 5 - 2! - 7! + 9! - 7!.$$
$$357592 = -3! - 5! - 7! - 5! + 9! - 2!.$$
$$357941 = 3! + 5! - 7! + 9! - 4! - 1!.$$
$$361469 = 3! - 6! - 1! + 4! - 6! + 9!.$$
$$364292 = 3!! + 6! - 4! - 2! + 9! - 2!.$$
$$397584 = -3!! + 9! - 7! + 5! + 8! + 4!.$$
$$398173 = 3! + 9! + 8! + 1! - 7! + 3!.$$
$$408937 = -4! + 0! + 8! + 9! + 3!! + 7!.$$
$$715799 = -7! - 1! + 5! - 7! + 9! + 9!.$$
$$720599 = -7! - 2! + 0! - 5! + 9! + 9!.$$

For more details refer author's work [14].

1.2 Selfie Numbers with Factorial and Square-Root

This subsection brings **selfie numbers** with use of factorial and/or square-root. See below some examples:

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

Examples given above are with **factorial** and **square-root** [19, 20]. First column numbers are in **digit's order** and second columns are in **reverse order of digits**. For details refer author's work [7, 8, 9, 12, 13].

1.3 Selfie Numbers with Fibonacci Sequence

The examples given in subsections, 1.1 and 1.2 are with **factorial** and **square-root**. Still, one can have similar kind of results using **Fibonacci sequence** values. See below:

$$235 = 2 + F(F(F(3) + 5)).$$
$$256 = 2^5 \times F(6).$$
$$4427 = (F(4) + 4^2) \times F(F(7)).$$
$$46493 = F(4 \times 6) + (-4 + 9)^3.$$

$$63 = 3 \times F(F(6)).$$
$$882 = 2 \times F(8) \times F(8).$$
$$1631 = F(13) \times (6 + 1).$$
$$54128 = 8 \times (F(2) + F(1 \times 4 \times 5)).$$

First column values are in **digit's order** and the second columns values are in **reverse order of digits**. For more details see author's [16, 17, 18].

1.4 Selfie Numbers with Triangular Numbers

The examples given in subsections, 1.1 1.2 and 1.3 are with **factorial**, **square-root** and **Fibonacci sequence** numbers. Still, one can have similar kind of results using **Triangular numbers**. See below:

$$1069 := T(10) - T(6) + T(T(9)).$$
$$1081 := T(1 + T(08 + 1)).$$
$$2887 := T(T(T(T(2)))) + T(T(8) + T(8)) + T(7).$$
$$4965 := T(-4 + 9) + T(-T(6) + T(T(5))).$$
$$4999 := 49 + T(99).$$
$$99545 := T(9) + T(9) \times T(T(T(5) - 4)) + 5.$$
$$99546 := T(9) + T(9) \times T(T(T(5) - 4)) + 6.$$

$$874 := T(T(T(4))) - T(T(7) + 8).$$
$$0105 := 50 + T(10).$$
$$1155 := -T(T(5)) + T(51 - 1).$$
$$1224 := T(T(T(4)) - T(T(2))) - 2 + 1.$$
$$2418 := T(81) - T(42).$$
$$99632 := 2 + (3 + T(T(6) + T(9))) \times T(9).$$
$$99633 := 3 + (3 + T(T(6) + T(9))) \times T(9).$$

First column values are in **digit's order** and the second column values are in **reverse order of digits**. For more details see author's work [22].

1.5 Selfie Numbers with Binomial Coefficients

The examples given in subsection 1.3 and 1.4 are with **Fibonacci sequence** and **Triangular numbers** respectively. Still, one can have similar kind of examples, using **Binomial coefficients**. See below some examples written in **both ways**, **digit's order** and **reverse order of digits**:

$$6435 := C(C(6,\ 4),\ 3 + 5) = C(5 \times 3,\ \sqrt{4} + 6).$$
$$15504 := C(15 + 5,\ 0! + 4) = C(4 \times 05,\ 5 \times 1).$$
$$42504 := C(4!,\ \sqrt{2 \times 50/4}) = C(4!,\ -05 + 24).$$
$$54264 := C(5 + 4^2,\ C(6,\ 4)) = C(4! - 6/2,\ (\sqrt{4 + 5})!).$$
$$74613 := C(7 \times 4 - 6,\ 1 \times 3!) = C(3! + 16,\ (-4 + 7)!).$$

$2650 := C(-1+26,\ 5-0!).$
$12870 := C(1\times 2\times 8,\ 7+0!).$
$14950 := C(-1+4!+\sqrt{9},\ 5-0!).$
$18564 := C(18,\ (5-6+4)!).$
$19448 := C(19-\sqrt{4},\ \sqrt{4}+8).$
$26334 := C(2+C(6,\ 3),\ 3+\sqrt{4}).$
$43758 := C(4!-3!,\ 7-5+8).$
$53130 := C(5^{3-1},\ 3!-0!).$

$28 := C(8,\ 2).$
$792 := C(2\times(\sqrt{9})!,\ 7).$
$924 := C(4!/2,\ (\sqrt{9})!).$
$2024 := C(4!,\ 2+(0\times 2)!).$
$4845 := C(5\times 4,\ 8-4).$
$00378 := C(C(8,\ \sqrt{7-3}),\ 0!+0!).$
$00792 := C(2\times(\sqrt{9})!,\ 7-0!-0!).$
$00924 := C(4!/2,\ \sqrt{9}\times(0!+0!)).$

The symbol C used for binomial coefficients is given by

$$C(m,\, r) = \frac{m!}{r!\times(m-r)!},\ m\geq r\geq 0,\ m,\, r\in \mathbf{N}.$$

For more details refer author's work [21]. For summary of author's work on numbers refer [23]. Also refer [5, 6] for historical books on numbers.

2 Polygonal Numbers

This section deals with definitions of **S-gonal** and **Centered polygonal** numbers. For more information on these numbers refer web-sites [1, 2, 3, 4].

2.1 S-gonal Numbers

The general formula for **s-sides of a polygon** (**s-gonal**) is given by

$$\boldsymbol{P_s}(n) := \frac{n(n-1)(s-2)}{2}+n,\quad s>2. \tag{1}$$

See below some particular cases:

Triangle (3-gonal): $\boldsymbol{P}_3(n) = \dfrac{n(n+1)}{2}$
Sequence values: 1, 3, 6, 10, 15, ...

Square (4-gonal): $\boldsymbol{P_4}(n) = n^2$
Sequence values: 1, 4, 9, 16, 25, ...

Pentagonal (5-gonal): $\boldsymbol{P_5}(n) = \dfrac{n(3n-1)}{2}$
Sequence values: 1, 5, 12, 22, ...

Hexagonal (6-gonal): $\boldsymbol{P_6}(n) = n(2n-1)$
Sequence values: 1, 6, 15, 28, ...

Recently, author [24] wrote, **Hardy-Ramanujan number 1729** in terms of **S-gonal** numbers:

$$\begin{aligned}
1729 &:= \boldsymbol{P_3}(26) + \boldsymbol{P_3}(52).\\
&:= \boldsymbol{P_4}(6) + \boldsymbol{P_4}(18) + \boldsymbol{P_4}(37).\\
&:= \boldsymbol{P_5}(3) + \boldsymbol{P_5}(34).\\
&:= \boldsymbol{P_6}(9) + \boldsymbol{P_6}(18) + \boldsymbol{P_6}(22).\\
&:= \boldsymbol{P_7}(9) + \boldsymbol{P_7}(14) + \boldsymbol{P_7}(21).\\
&:= \boldsymbol{P_8}(4) + \boldsymbol{P_8}(12) + \boldsymbol{P_8}(21).\\
&:= \boldsymbol{P_9}(1) + \boldsymbol{P_9}(2) + \boldsymbol{P_9}(15) + \boldsymbol{P_9}(17).\\
&:= \boldsymbol{P_{10}}(1) + \boldsymbol{P_{10}}(3) + \boldsymbol{P_{10}}(21).\\
&:= \boldsymbol{P_{11}}(1) + \boldsymbol{P_{11}}(9) + \boldsymbol{P_{11}}(18).
\end{aligned}$$

Calculating further values, the exact values for 1729 are for **12-gonal**, **24-gonal** and **84-gonal**. See below:

$$\mathbf{1729} := \boldsymbol{P_{12}}(19) = \boldsymbol{P_{24}}(13) = \boldsymbol{P_{84}}(7).$$

Moreover, 7, 13 and 19 are the *multiplicative factors* of 1729, i.e., $1729 = 7 \times 13 \times 19$.

According to **s-gonal** values given in (1), below are selfie representations of 1729 in digit's order and reverse:

$$\begin{aligned}
1729 &:= 1 \times 7 \times (P_4(P_4(P_4(2))) - 9) && = (-9 + P_4(P_4(P_4(2)))) \times 7 \times 1.\\
&:= 1 + (7 + P_5(2))^{\sqrt{9}} && = P_5(\sqrt{9}) + P_5(P_5(2) \times 7 - 1).\\
&:= 1 \times P_7\left(\sqrt{P_7(7) \times P_7(2)}\right) - P_7(9) && = -P_7(9) + P_7(27+1).\\
&:= 1 \times P_8(7) \times \left(-P_8(2) + P_8(\sqrt{9})\right) && = P_8(9) \times P_8(2) - 71.\\
&:= 1 + 72 \times P_9(\sqrt{9}) && = P_9(\sqrt{9}) \times (P_9(2))!/7! + 1.\\
&:= -1 - P_{10}(7 + P_{10}(2)) + P_{10}(P_{10}(\sqrt{9})) && = P_{10}(P_{10}(\sqrt{9})) - P_{10}(P_{10}(2) + 7) - 1.\\
&:= -1^7 + P_{11}(P_{11}(2) + 9) && = P_{11}(9) + P_{11}(P_{11}(2) + 7)) + 1.
\end{aligned}$$

In case of P_{12}, P_{24} and P_{84}, we have exact values.

$$\begin{aligned}
1729 &:= P_{12}(19) = P_{12}(1+7+2+9) && = P_{12}(9+2+7+1).\\
&:= P_{24}(13) = P_{24}(-1+7-2+9) && = P_{24}(9-2+7-1).\\
&:= P_{84}(7) \;\; = P_{84}((1+7) \times 2 - 9) && = P_{84}(-9 + 2 \times (7+1)).
\end{aligned}$$

2.2 Centered Polygonal Numbers

The centered polygonal numbers are the extensions of s-gonal numbers. The general formula for **centered polygonal numbers** is given by

$$\boldsymbol{K_t}(n) := \frac{t\,n(n-1)}{2} + 1, \quad t > 2. \tag{2}$$

See below some particular cases:

$$\textbf{Centered trianglar numbers: } K_3(n) := \frac{3\,n(n-1)}{2} + 1$$
Sequence values: 1, 4, 10, 19, 31, ...

$$\textbf{Centered square numbers: } K_4(n) := \frac{4\,n(n-1)}{2} + 1$$
Sequence values: 1, 5, 13, 25, 41, ...

$$\textbf{Centered pentagonal numbers: } K_5(n) := \frac{5\,n(n-1)}{2} + 1$$
Sequence values: 1, 6, 16, 31, 51, ...

$$\textbf{Centered hexagonal numbers: } K_6(n) := \frac{6\,n(n-1)}{2} + 1$$
Sequence values: 1, 7, 19, 37, 61, ...

Based on definition of (2), for individual values of k, we can write 1729 as:

$$\begin{aligned}
\mathbf{1729} &:= K_3(1) + K_3(2) + K_3(13) + K_3(32).\\
&:= K_4(1) + K_4(2) + K_4(3) + K_4(7) + K_4(29).\\
&:= K_5(1) + K_5(2) + K_5(14) + K_5(23).\\
&:= K_6(1) + K_6(2) + K_6(3) + K_6(4) + K_6(5) + K_6(9) + K_6(22).\\
&:= K_7(1) + K_7(2) + K_7(3) + K_7(4) + K_7(5) + K_7(9) + K_7(20).\\
&:= K_8(1) + K_8(2) + K_8(3) + K_8(4) + K_8(5) + K_8(6) + K_8(9) + K_8(12) + K_8(13).\\
&:= K_{11}(7) + K_{11}(17).\\
&:= K_{14}(1) + K_{14}(2) + K_{14}(3) + K_{14}(5) + K_{14}(6) + K_{14}(8) + K_{14}(12).\\
&:= K_{15}(1) + K_{15}(2) + K_{15}(9) + K_{13}(13).
\end{aligned}$$

Below are values of 1729 in terms of centered polygonal numbers in digit's order and its reverse:

$$\begin{aligned}
\mathbf{1729} &:= 1 + (\sqrt{K_3(7)} + K_3(2))^{\sqrt{9}} && = (\sqrt{9} + K_3(2)!) \times K_3(7) + 1.\\
&:= 1 + (7 + K_4(2))^{\sqrt{9}}.\\
&:= 1 + (K_5(7) + 2) \times K_5(\sqrt{9}) && = K_5(\sqrt{9}) \times (2 + K_5(7)) + 1.\\
&:= K_6(1 + 7 - 2) \times K_6(\sqrt{9}) && = K_6(\sqrt{9}) \times K_6(-2 + 7 + 1).\\
&:= 1 + (K_9(7) + 2) \times 9 && = 9 \times (2 + K_9(7)) + 1.\\
&:= 1 \times 7 + K_{10}(2) + K_{10}(\sqrt{K_{10}(9)}) && = K_{10}(\sqrt{K_{10}(9)}) + K_{10}(2) + 7 \times 1.\\
&:= 1^7 + K_{11}(2)^{\sqrt{9}} && = K_{11}(K_{11}(\sqrt{9})/2) + K_{11}(7) \times 1.\\
&:= K_{13}(\sqrt{17^2}) - K_{13}(\sqrt{9}) && = (\sqrt{9})! \times (K_{13}(2) + K_{13}(7)) + 1.
\end{aligned}$$

In this paper, we shall write **selfie numbers** by use of **s-gonal Numbers** and **centered polygonal numbers** defined in (1) (2) respectively. A combined study relating selfie numbers with **binomial coefficients**, **s-gonal numbers** and **centered polygonal numbers** is also made in last section.

3 Selfie Numbers with S-gonal Values

This section brings **selfie numbers** written in terms of **s-gonal numbers**. The examples are divided in three subsection. First subsection give in both ways, i.e., in order digits and its reverse together. The second subsection give numbers in digit's orders, and the third subsection give in reverse order of digits. The results are limited up to 5 digits. Higher digits shall be seen elsewhere.

From now onwards we shall use the notation $\boldsymbol{P(n,s)}$ for **s-gonal numbers**, i.e.,

$$\boldsymbol{P}(n,s) := \boldsymbol{P_s}(n), s \geq 3.$$

From mathematical point of view, we can calculate values of $P(n,s)$ for $s \leq 2$, but from practical point of view, **s-gonal numbers** are considered for $s \geq 3$.

Three subsections below give examples of **s-gonal selfie numbers** in three different ways. One with digits order and its reverse both ways, second in digit's order and third in reverse order of digits

3.1 Both Ways: Digit's Order and Reverse

This subsection brings **s-gonal selfie numbers** written in digit's order and it reverse together.

$$\begin{aligned}
\mathbf{66} &:= \boldsymbol{P}(6,6) &&= \boldsymbol{P}(6,6).\\
\mathbf{396} &:= \boldsymbol{P}(3!,(\sqrt{9})!) \times 6 &&= \boldsymbol{P}(6,(\sqrt{9})!) \times 3!.\\
\mathbf{699} &:= 6! - \boldsymbol{P}((\sqrt{9})!,\sqrt{9}) &&= -\boldsymbol{P}((\sqrt{9})!,\sqrt{9}) + 6!.
\end{aligned}$$

$$\begin{aligned}
\mathbf{1949} &:= -1-(\sqrt{9})! + \boldsymbol{P}(4!,9) &&= -(\sqrt{9})! + \boldsymbol{P}(4!,9) - 1.\\
\mathbf{4164} &:= \boldsymbol{P}(4!,-1-6+4!) &&= \boldsymbol{P}(4!,-6-1+4!).\\
\mathbf{4464} &:= \boldsymbol{P}(4!,4+6) \times \sqrt{4} &&= \boldsymbol{P}(4!,6+4) \times \sqrt{4}.\\
\mathbf{4997} &:= \sqrt{4} - \boldsymbol{P}(9,\sqrt{9}) + 7! &&= 7! - \boldsymbol{P}(9,\sqrt{9}) + \sqrt{4}.\\
\mathbf{5424} &:= -5! + \boldsymbol{P}(4!,-2+4!) &&= \boldsymbol{P}(4!,-2+4!) - 5!.\\
\mathbf{5544} &:= \boldsymbol{P}(5!/5,4!-\sqrt{4}) &&= \boldsymbol{P}(4!,-\sqrt{4}+5!/5).\\
\mathbf{7497} &:= 7 \times \boldsymbol{P}(4!-\sqrt{9},7) &&= 7 \times \boldsymbol{P}(-\sqrt{9}+4!,7).\\
\mathbf{8344} &:= \boldsymbol{P}(8 \times 3+4,4!) &&= \boldsymbol{P}(4!+4,3 \times 8).\\
\mathbf{8448} &:= 8 \times \boldsymbol{P}(4!,4!) - 8! &&= 8 \times \boldsymbol{P}(4!,4!) - 8!.\\
\mathbf{9927} &:= 7! \times 2 - \boldsymbol{P}(9,(\sqrt{9})!) &&= -\boldsymbol{P}(9,(\sqrt{9})!) + 2 \times 7!.
\end{aligned}$$

$$\begin{aligned}
\mathbf{11344} &:= (-11+3!!) \times \boldsymbol{P}(4,4) &&= \boldsymbol{P}(4,4) \times (3!!-11).\\
\mathbf{15099} &:= ((1+5)!-0!) \times \boldsymbol{P}((\sqrt{9})!,\sqrt{9}) &&= \boldsymbol{P}((\sqrt{9})!,\sqrt{9}) \times (-0!+(5+1)!).\\
\mathbf{15399} &:= (-1+\sqrt{5 \times 3!!}) \times \boldsymbol{P}(9,9) &&= \boldsymbol{P}(9,9) \times (\sqrt{3!! \times 5}-1).
\end{aligned}$$

$$\mathbf{15696} := (-1+5)! \times (6! - \boldsymbol{P}((\sqrt{9})!, 6)) = (-\boldsymbol{P}(6, (\sqrt{9})!) + 6!) \times (5-1)!.$$
$$\mathbf{17346} := \boldsymbol{P}(-1+7, 3!) + 4! \times 6! = 6! \times 4! + \boldsymbol{P}(3!, 7-1).$$
$$\mathbf{20454} := (2+0!)! + \boldsymbol{P}(4!, 5) \times 4! = \boldsymbol{P}(4!, 5) \times 4! + (0!+2)!.$$

$$\mathbf{26688} := \boldsymbol{P}((-2+6)!, 6+8) \times 8 = \boldsymbol{P}(8,3) \times 6! + 6! - 2.$$
$$\mathbf{30445} := (-3! - 0! + \boldsymbol{P}(4!, 4!)) \times 5 = 5 \times (\boldsymbol{P}(4!, 4!) - 0! - 3!).$$
$$\mathbf{30455} := (\boldsymbol{P}((3+0!)!, 4!) - 5) \times 5 = 5 \times (-5 + \boldsymbol{P}(4!, (0!+3)!)).$$
$$\mathbf{30495} := (\boldsymbol{P}((3+0!)!, 4!) + \sqrt{9}) \times 5 = 5 \times (\sqrt{9} + \boldsymbol{P}(4!, (0!+3)!)).$$
$$\mathbf{30599} := -3!! - 0! + 5! \times \boldsymbol{P}(9,9) = \boldsymbol{P}(9,9) \times 5! - 0! - 3!!.$$
$$\mathbf{30636} := ((3!+0!)! + \boldsymbol{P}(6, 3!)) \times 6 = (\boldsymbol{P}(6, 3!) + (6+0!)!) \times 3!.$$
$$\mathbf{32399} := -3 + 2 + 3!! \times \boldsymbol{P}(9, \sqrt{9}) = \boldsymbol{P}(9, \sqrt{9}) \times 3!! + 2 - 3.$$

$$\mathbf{34299} := 3!! \times 4! \times 2 - \boldsymbol{P}(9,9) = -\boldsymbol{P}(9,9) + 2 \times 4! \times 3!!.$$
$$\mathbf{34342} := -2 + 4! \times \boldsymbol{P}(3+4!, 3!) = \boldsymbol{P}(3+4!, 3!) \times 4! - 2.$$
$$\mathbf{34977} := -3 - \boldsymbol{P}(4!, \sqrt{9}) + 7! \times 7 = 7! \times 7 - \sqrt{9} - \boldsymbol{P}(4!, 3).$$
$$\mathbf{36936} := \boldsymbol{P}(3 \times 6, \sqrt{9}) \times \sqrt{3!^6} = \boldsymbol{P}(6 \times 3, \sqrt{9}) \times 6^3.$$
$$\mathbf{37435} := 3!! \times (\boldsymbol{P}(7,4) + 3) - 5 = -5 + 3!! \times (4! + \boldsymbol{P}(7,3)).$$
$$\mathbf{38888} := -(3 + \boldsymbol{P}(8,8)) \times 8 + 8! = 8! - 8 \times (\boldsymbol{P}(8,8) + 3).$$

$$\mathbf{39198} := 3! - \boldsymbol{P}((\sqrt{9}+1)!, (\sqrt{9})!) + 8! = 8! - \boldsymbol{P}((\sqrt{9}+1)!, (\sqrt{9})!) + 3!.$$
$$\mathbf{39648} := -\boldsymbol{P}(3+9, 6 \times \sqrt{4}) + 8! = 8! - \boldsymbol{P}(\sqrt{4} \times 6, 9+3).$$
$$\mathbf{39685} := -\boldsymbol{P}(3! \times \sqrt{9}, 6) + 8! + 5 = -5 + 8! - \boldsymbol{P}(6 \times \sqrt{9}, 3!).$$
$$\mathbf{39738} := -3! \times ((\sqrt{9})! + \boldsymbol{P}(7, 3!)) + 8! = 8! - 3! \times \boldsymbol{P}(7, (\sqrt{9})!) - 3!.$$
$$\mathbf{39792} := (-\boldsymbol{P}(3!, (\sqrt{9})!) + 7!) \times ((\sqrt{9})! + 2) = 2^{\sqrt{9}} \times (7! - \boldsymbol{P}((\sqrt{9})!, 3!)).$$
$$\mathbf{39894} := -\boldsymbol{P}(3!, (\sqrt{9})!) + 8! - (\sqrt{9})!!/\sqrt{4} = \boldsymbol{P}(4!, \sqrt{9}) + 8! - (\sqrt{9})! - 3!!.$$

$$\mathbf{39918} := -3! \times (\boldsymbol{P}((\sqrt{9})!, (\sqrt{9})!) + 1) + 8! = 8! + (-1 - \boldsymbol{P}((\sqrt{9})!, (\sqrt{9})!)) \times 3!.$$
$$\mathbf{39942} := (2 \times 4)! - \boldsymbol{P}(9 \times \sqrt{9}, 3) = -\boldsymbol{P}(3 \times 9, \sqrt{9}) + (4 \times 2)!.$$
$$\mathbf{42548} := \boldsymbol{P}(4!, 2 \times 5) - 4 + 8! = 8! + \boldsymbol{P}(4!, 5 \times 2) - 4.$$
$$\mathbf{42671} := -1 + 7 \times \boldsymbol{P}((6-2)!, 4!) = \boldsymbol{P}(4!, (-2+6)!) \times 7 - 1.$$
$$\mathbf{42674} := \boldsymbol{P}(4!, (-2+6)!) \times 7 + \sqrt{4} = \sqrt{4} + 7 \times \boldsymbol{P}((6-2)!, 4!).$$
$$\mathbf{43776} := \boldsymbol{P}(4!, -3+7) \times 76 = (6! - \boldsymbol{P}(7,7)) \times 3 \times 4!.$$

$$\mathbf{43992} := \boldsymbol{P}(4!, 3!) \times (\sqrt{9} + (\sqrt{9})!^2) = (2^{\sqrt{9}})! + \boldsymbol{P}(9, 3!) \times 4!.$$
$$\mathbf{44636} := -4 + (-4 + \boldsymbol{P}(6, 3!)) \times 6! = 6! \times (\boldsymbol{P}(3!, 6) - 4) - 4.$$
$$\mathbf{44976} := \boldsymbol{P}(4!, 4!) + 9 \times (7! - 6!) = (-6! + 7!) \times 9 + \boldsymbol{P}(4!, 4!).$$
$$\mathbf{46144} := 4 \times (6! + 1) \times \boldsymbol{P}(4,4) = \boldsymbol{P}(4,4) \times (1 + 6!) \times 4.$$
$$\mathbf{46399} := 4 + 6^{3!} - \boldsymbol{P}(9,9) = -\boldsymbol{P}(9,9) + 3!^6 + 4.$$
$$\mathbf{46646} := -4 + 6^{\sqrt{\boldsymbol{P}(6,4)}} - 6 = \sqrt{\boldsymbol{P}(6,4)^6} - 6 - 4.$$
$$\mathbf{46699} := -\sqrt{4} + 6^6 + \boldsymbol{P}(9, \sqrt{9}) = \boldsymbol{P}(9, \sqrt{9}) + 6^6 - \sqrt{4}.$$

$$\mathbf{46942} := P(4\times 6,9)\times 4!-2 = -2+P(4!,9)\times 6\times 4.$$
$$\mathbf{46968} := -4!+P(6,(\sqrt{9})!)\times(6!-8) = (-8+6!)\times P((\sqrt{9})!,6)-4!.$$
$$\mathbf{48336} := P(4!,8)+P(3,3)^6 = 6^{P(3,3)}+8!/4!.$$
$$\mathbf{49236} := (4!+(\sqrt{9})!!+2)\times P(3!,6) = P(6,3!)\times(2+(\sqrt{9})!!+4!).$$
$$\mathbf{49896} := 4!\times 9\times P(8+\sqrt{9},6) = (6+P(9,8))\times 9\times 4!.$$
$$\mathbf{54909} := 5+P(4!,(\sqrt{9}+0!)!)\times 9 = 9\times(P((0!+\sqrt{9})!,4!)+5).$$

$$\mathbf{55473} := (P(5,5)-4!)\times(7!+3) = (3+7!)\times(-4!+P(5,5)).$$
$$\mathbf{66066} := (6!+6)\times P(0!+6,6) = (6!+6)\times P(0!+6,6).$$
$$\mathbf{68442} := -6+(8!-P(4!,4!))\times 2 = 2\times(-P(4!,4!)+8!)-6.$$
$$\mathbf{75593} := -7+P(5,5)\times\sqrt{9}\times 3!! = 3!!\times\sqrt{9}\times P(5,5)-7.$$
$$\mathbf{77436} := (P(7,7)-4)\times(-3+6!) = (6!-3)\times(-4+P(7,7)).$$

$$\mathbf{77935} := (P(7,7)-\sqrt{9})\times(3!!-5) = (5-3!!)\times(\sqrt{9}-P(7,7)).$$
$$\mathbf{77949} := P(7,7)\times((\sqrt{9})!!-4!)-\sqrt{9} = -\sqrt{9}+(-4!+(\sqrt{9})!!)\times P(7,7).$$
$$\mathbf{80788} := P(8,07)+8!+8! = 8!+P(8,7)+(08)!.$$
$$\mathbf{93488} := (\sqrt{9})!^{3!}\times\sqrt{4}+P(8,8) = P(8,8)+\sqrt{4}\times 3!^{(\sqrt{9})!}.$$
$$\mathbf{96624} := P((\sqrt{9})!,6)\times(6!\times 2+4!) = (4!+2\times 6!)\times P(6,(\sqrt{9})!).$$
$$\mathbf{99744} := P((\sqrt{9})!,\sqrt{9})\times 7!-P(4!,4!) = -P(4!,4!)+7!\times P((\sqrt{9})!,\sqrt{9}).$$

3.2 Digit's Order

Initially, the results are in symmetric way, and then the other numbers.

• Symmetric Representations

$$\mathbf{1680} := P\left((\sqrt{16})!,8\right)+0.$$
$$\mathbf{1681} := P\left((\sqrt{16})!,8\right)+1.$$
$$\mathbf{1682} := P\left((\sqrt{16})!,8\right)+2.$$
$$\mathbf{1683} := P\left((\sqrt{16})!,8\right)+3.$$
$$\mathbf{1684} := P\left((\sqrt{16})!,8\right)+4.$$
$$\mathbf{1685} := P\left((\sqrt{16})!,8\right)+5.$$
$$\mathbf{1686} := P\left((\sqrt{16})!,8\right)+6.$$
$$\mathbf{1687} := P\left((\sqrt{16})!,8\right)+7.$$
$$\mathbf{1688} := P\left((\sqrt{16})!,8\right)+8.$$
$$\mathbf{1689} := P\left((\sqrt{16})!,8\right)+9.$$

$$\mathbf{32760} := 3!!/2\times P(7,6)+0.$$
$$\mathbf{32761} := 3!!/2\times P(7,6)+1.$$
$$\mathbf{32762} := 3!!/2\times P(7,6)+2.$$
$$\mathbf{32763} := 3!!/2\times P(7,6)+3.$$
$$\mathbf{32764} := 3!!/2\times P(7,6)+4.$$
$$\mathbf{32765} := 3!!/2\times P(7,6)+5.$$
$$\mathbf{32766} := 3!!/2\times P(7,6)+6.$$
$$\mathbf{32767} := 3!!/2\times P(7,6)+7.$$
$$\mathbf{32768} := 3!!/2\times P(7,6)+8.$$
$$\mathbf{32769} := 3!!/2\times P(7,6)+9.$$

$$\mathbf{36720} := 3!!\times P(6,7-2)+0.$$
$$\mathbf{36721} := 3!!\times P(6,7-2)+1.$$
$$\mathbf{36722} := 3!!\times P(6,7-2)+2.$$

36723 $:= 3!! \times \boldsymbol{P}(6,7-2)+3.$
36724 $:= 3!! \times \boldsymbol{P}(6,7-2)+4.$
36725 $:= 3!! \times \boldsymbol{P}(6,7-2)+5.$
36726 $:= 3!! \times \boldsymbol{P}(6,7-2)+6.$
36727 $:= 3!! \times \boldsymbol{P}(6,7-2)+7.$
36728 $:= 3!! \times \boldsymbol{P}(6,7-2)+8.$
36729 $:= 3!! \times \boldsymbol{P}(6,7-2)+9.$

39780 $:= -\boldsymbol{P}(3!+9,7)+8!+0.$
39781 $:= -\boldsymbol{P}(3!+9,7)+8!+1.$
39782 $:= -\boldsymbol{P}(3!+9,7)+8!+2.$
39783 $:= -\boldsymbol{P}(3!+9,7)+8!+3.$
39784 $:= -\boldsymbol{P}(3!+9,7)+8!+4.$
39785 $:= -\boldsymbol{P}(3!+9,7)+8!+5.$
39786 $:= -\boldsymbol{P}(3!+9,7)+8!+6.$
39787 $:= -\boldsymbol{P}(3!+9,7)+8!+7.$
39788 $:= -\boldsymbol{P}(3!+9,7)+8!+8.$
39789 $:= -\boldsymbol{P}(3!+9,7)+8!+9.$

86400 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+0.$
86401 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+1.$
86402 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+2.$
86403 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+3.$
86404 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+4.$
86405 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+5.$
86406 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+6.$
86407 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+7.$
86408 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+8.$
86409 $:= \boldsymbol{P}(8,6) \times (\sqrt{4}+0!)!!+9.$

86640 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+0.$
86641 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+1.$
86642 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+2.$
86643 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+3.$
86644 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+4.$
86645 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+5.$
86646 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+6.$
86647 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+7.$
86648 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+8.$
86649 $:= \boldsymbol{P}(8,6) \times (6!+\sqrt{4})+9.$

• Non Symmetric Representations

357 $:= \boldsymbol{P}(3!,5) \times 7.$
384 $:= 3! \times \boldsymbol{P}(8,4).$

1089 $:= \boldsymbol{P}(10+8,9).$
1326 $:= \boldsymbol{P}(13 \times 2,6).$
1403 $:= -1+\boldsymbol{P}(4!,0!+3!).$
1408 $:= \boldsymbol{P}(-1+4!-0!,8).$
1495 $:= (-1+\boldsymbol{P}(4!,\sqrt{9})) \times 5.$
1639 $:= \boldsymbol{P}(1+\boldsymbol{P}(6,3),9).$
1653 $:= \boldsymbol{P}(-1+6 \times 5,3!).$
1944 $:= \boldsymbol{P}(1 \times 9,4) \times 4!.$
3276 $:= 3!^2 \times \boldsymbol{P}(7,6).$
3564 $:= 3!! \times 5 - \boldsymbol{P}(6,4).$
3570 $:= \boldsymbol{P}(3!,5) \times 70.$
3645 $:= 3^{\sqrt{\boldsymbol{P}(6,4)}} \times 5.$
3843 $:= \boldsymbol{P}(-3+4!,8) \times 3.$
3888 $:= \boldsymbol{P}(3 \times 8,8+8).$
3960 $:= \boldsymbol{P}(3!,(\sqrt{9})!) \times 60.$
4332 $:= -4!+\boldsymbol{P}(3!,3!)^2.$
4435 $:= \boldsymbol{P}(4!,4!-3!)-5.$
4436 $:= -4+\boldsymbol{P}(4!,3 \times 6).$
4440 $:= \boldsymbol{P}(4!,4!-(\sqrt{4}+0!)!).$
4896 $:= 4 \times 8 \times \boldsymbol{P}(9,6).$
4992 $:= \boldsymbol{P}(4!,9+9+2).$
7744 $:= (\boldsymbol{P}(7,7)-4!)^{\sqrt{4}}.$
7896 $:= 7 \times \boldsymbol{P}(8 \times \sqrt{9},6).$

11495 $:= \boldsymbol{P}(11,4) \times 95.$
13464 $:= \boldsymbol{P}(13+4,6) \times 4!.$
13488 $:= (1 \times 3! + \boldsymbol{P}(4!,8)) \times 8.$
14352 $:= \boldsymbol{P}(-1+4!,3) \times 52.$

14950 $:= (-1 + \boldsymbol{P}(4!,\sqrt{9})) \times 50.$
15674 $:= 1 \times 5^6 + \boldsymbol{P}(7,4).$
16544 $:= \boldsymbol{P}(16,5) \times 44.$
16896 $:= \sqrt{\sqrt{16^8}} \times \boldsymbol{P}((\sqrt{9})!,6).$

17289 $:= \boldsymbol{P}(17,2\times 8) \times 9.$
17639 $:= -1 + 7!/6 \times \boldsymbol{P}(3!,\sqrt{9}).$
17755 $:= \boldsymbol{P}(1+7,7) \times 5! - 5.$
17760 $:= \boldsymbol{P}(1+7,7) \times (6-0!)!.$
18355 $:= \boldsymbol{P}(1+8,3!) \times 5! - 5.$
18360 $:= \boldsymbol{P}(1+8,3!) \times (6-0!)!.$

18744 $:= (\boldsymbol{P}(18,7) - \sqrt{4}) \times 4!.$
18792 $:= \boldsymbol{P}(18,7) \times ((\sqrt{9})! - 2)!.$
19888 $:= (1 + \boldsymbol{P}(9,8)) \times 88.$
20445 $:= -2 - 0! + 4! \times \boldsymbol{P}(4!,5).$
21546 $:= \boldsymbol{P}(21,-5+4!) \times 6.$
22704 $:= \boldsymbol{P}(22,7-0!) \times 4!.$

23472 $:= 2 \times 3! \times \boldsymbol{P}(4!,7+2).$
24384 $:= (\boldsymbol{P}(24,3\times 8) \times 4.$
24672 $:= 2 \times (\boldsymbol{P}(4!,6) + 7!) \times 2.$
24674 $:= 2 + (\boldsymbol{P}(4!,6) + 7!) \times 4.$
24986 $:= 2 + \boldsymbol{P}(4!,9+8) \times 6.$
25965 $:= ((2+5)! + \boldsymbol{P}(9,6)) \times 5.$
25967 $:= 2 + 5 \times (\boldsymbol{P}(9,6) + 7!).$

28576 $:= \boldsymbol{P}(2\times 8,5) \times 76.$
29435 $:= \boldsymbol{P}(29,4) \times 35.$
29793 $:= 2 + (\sqrt{9} + \boldsymbol{P}(7,\sqrt{9}))^3.$
29952 $:= 2^9 \times \boldsymbol{P}(9,5)/2.$
30393 $:= 3! \times (0!+3!)! + \boldsymbol{P}(9,3!).$
30982 $:= 3! + \boldsymbol{P}(-0!+9,8)^2.$
33327 $:= (\boldsymbol{P}(3!,3!) + 3)^2 \times 7.$

33345 $:= (3!! + \boldsymbol{P}(3!,3)) \times 45.$
33579 $:= 3 \times (3+5!) \times \boldsymbol{P}(7,(\sqrt{9})!).$
33589 $:= (-\boldsymbol{P}(3!,3!) + 5 \times 8!)/(\sqrt{9})!.$
34209 $:= \boldsymbol{P}(-3+4!,20) \times 9.$

34416 $:= 3!! + 4! \times \boldsymbol{P}(4!,1+6).$
34920 $:= 3! \times \boldsymbol{P}(4!,\sqrt{9}+20).$
34972 $:= 3 + (-\sqrt{4} + \boldsymbol{P}(9,7))^2.$
34974 $:= 3! + \boldsymbol{P}(4!,(\sqrt{9})!) \times (7+4!).$

35343 $:= \boldsymbol{P}(3!,5) \times (3!! - 4! - 3).$
35493 $:= \boldsymbol{P}(3!,5) \times (-4! + (\sqrt{9})!!) - 3.$
35494 $:= \boldsymbol{P}(3!,5) \times (-4! + (\sqrt{9})!!) - \sqrt{4}.$
35496 $:= \boldsymbol{P}(3!,5) \times (-4! + (9-6)!!).$
35499 $:= \boldsymbol{P}(3!,5) \times (-4! + (\sqrt{9})!!) + \sqrt{9}.$
35649 $:= \boldsymbol{P}(3!,5) \times (6! - 4! + \sqrt{9}).$
35700 $:= \boldsymbol{P}(3!,5) \times 700.$

35964 $:= (3+5)! - \boldsymbol{P}((\sqrt{9})!,6)^{\sqrt{4}}.$
36450 $:= 3^{\sqrt{\boldsymbol{P}(6,4)}} \times 50.$
36465 $:= (-3 + 6! - \sqrt{4}) \times \boldsymbol{P}(6,5).$
36648 $:= -\boldsymbol{P}(3+6,6) \times 4! + 8!.$
37485 $:= \boldsymbol{P}(3\times 7,4) \times 85.$
37488 $:= (3 + 7!/4!) \times \boldsymbol{P}(8,8).$

38466 $:= -3! + 8! - \boldsymbol{P}(4!,6) - 6!.$
38469 $:= -3!! + 8! - \boldsymbol{P}(4!,6) - \sqrt{9}.$
38472 $:= -3!! + 8! - \boldsymbol{P}(4!,(\sqrt{7+2})!).$
38496 $:= 3! \times (-\boldsymbol{P}(8,4) + 9 \times 6!).$
38646 $:= 3^8 \times \sqrt{\boldsymbol{P}(6,4)} - 6!.$
38739 $:= -3!! + 8! - \boldsymbol{P}(7\times 3,(\sqrt{9})!).$

39158 $:= -\boldsymbol{P}(3\times 9+1,5) + 8!.$
39204 $:= ((\boldsymbol{P}(3!,(\sqrt{9})!) \times (2+0!))^{\sqrt{4}}).$
39435 $:= (3!! - \sqrt{9}) \times (4 + \boldsymbol{P}(3!,5)).$
39468 $:= -\boldsymbol{P}(3!,(\sqrt{9})!) \times \sqrt{4} - 6! + 8!.$
39486 $:= 3! \times 9^4 + \boldsymbol{P}(8,6).$
39549 $:= -3!! - \boldsymbol{P}((\sqrt{9})!,5) + (4!/\sqrt{9})!.$

$\mathbf{39690} := -\boldsymbol{P}(3! \times \sqrt{9}, 6) + (9-0!)!.$
$\mathbf{39753} := -3 \times \boldsymbol{P}(9,7) + (5+3)!.$
$\mathbf{39758} := -3 \times \boldsymbol{P}(9,7) + 5 + 8!.$
$\mathbf{39829} := \boldsymbol{P}(3!, \sqrt{9}) + 8! - 2^9.$
$\mathbf{39933} := \boldsymbol{P}(3 \times 3, 9) \times \boldsymbol{P}(9, 3!).$
$\mathbf{39978} := -\boldsymbol{P}(3 + \sqrt{9 \times 9}, 7) + 8!.$
$\mathbf{40335} := \boldsymbol{P}(4+0!, 3) + (3+5)!.$

$\mathbf{40338} := 4! - \boldsymbol{P}(03, 3) + 8!.$
$\mathbf{41608} := \boldsymbol{P}(4!-1, 6+0!) + 8!.$
$\mathbf{41724} := \boldsymbol{P}(4!, 1 \times 7) + (2 \times 4)!.$
$\mathbf{41748} := \boldsymbol{P}(4!, 1 \times 7) + 4! + 8!.$
$\mathbf{41976} := (\boldsymbol{P}(4!, 1 \times 9) + 7!) \times 6.$
$\mathbf{42128} := (\boldsymbol{P}(4!, 21) - 2) \times 8.$

$\mathbf{42144} := \boldsymbol{P}(4!, 21) \times (4+4).$
$\mathbf{42168} := \boldsymbol{P}(4!, (2+1)!) + 6! + 8!.$
$\mathbf{43128} := \boldsymbol{P}(4!, 3!+1) \times 2 + 8!.$
$\mathbf{43264} := 4^3 \times \boldsymbol{P}(26, 4).$

$\mathbf{43932} := \boldsymbol{P}(4!, 3!+9) + (3!+2)!.$
$\mathbf{43938} := \boldsymbol{P}(4!, 3!+9) + 3! + 8!.$
$\mathbf{44128} := \boldsymbol{P}(4!+4, 12) + 8!.$
$\mathbf{44208} := \boldsymbol{P}(4!, 4^2) + (08)!.$
$\mathbf{44288} := (\boldsymbol{P}(4!, 4!-2) - 8) \times 8.$

$\mathbf{44352} := 4! \times (\boldsymbol{P}(4!, 3!) + (5-2)!!).$
$\mathbf{44544} := 4! \times (-4+5!) \times \boldsymbol{P}(4,4).$
$\mathbf{44544} := 4! \times (-4+5!) \times \boldsymbol{P}(4,4).$
$\mathbf{44928} := (4!+4!) \times \boldsymbol{P}(9 \times 2, 8).$
$\mathbf{45744} := (4+5)!/7 - \boldsymbol{P}(4!, 4!).$

$\mathbf{46084} := 4 + 6! \times \boldsymbol{P}(08, 4).$
$\mathbf{46368} := \boldsymbol{P}(4!, 6) \times 3! - 6! + 8!.$
$\mathbf{46398} := \boldsymbol{P}(4!, 6) + (-3!! + 9!)/8.$
$\mathbf{46416} := (\sqrt{4}+6)! + \boldsymbol{P}(4!, (\sqrt{16})!).$
$\mathbf{46639} := 4 + 6^6 - \boldsymbol{P}(3!, \sqrt{9}).$
$\mathbf{46644} := 4 + 6^6 - \boldsymbol{P}(4,4).$
$\mathbf{46784} := (4+6!+7) \times \boldsymbol{P}(8,4).$
$\mathbf{46930} := (\sqrt{4}+6!) \times (\boldsymbol{P}((\sqrt{9})!, 3!) - 0!).$

$\mathbf{46944} := \boldsymbol{P}\left(4 \times 6, \sqrt{\boldsymbol{P}(9,4)}\right) \times 4!.$
$\mathbf{47496} := 4! \times (-7 + \boldsymbol{P}(4!, 9)) + 6!.$
$\mathbf{47520} := (-4 + \boldsymbol{P}(7,5)) \times (2+0!)!!.$
$\mathbf{47685} := \boldsymbol{P}(4!-7, 6) \times 85.$
$\mathbf{47736} := \boldsymbol{P}(4!, 7) \times (\boldsymbol{P}(7,3) + 6).$
$\mathbf{48333} := \boldsymbol{P}(4!, 8) + 3!^{3!} - 3.$
$\mathbf{48334} := \boldsymbol{P}(4!, 8) + 3!^{3!} - \sqrt{4}.$
$\mathbf{48339} := \boldsymbol{P}(4!, 8) + 3!^{3!} + \sqrt{9}.$

$\mathbf{48744} := -4! + 8!/7! \times \boldsymbol{P}(4!, 4!).$
$\mathbf{49335} := (4! + \boldsymbol{P}(9,3)) \times (3!! - 5).$
$\mathbf{49344} := (\sqrt{4}+9)!/3!! - \boldsymbol{P}(4!, 4!).$
$\mathbf{54523} := -5 + \boldsymbol{P}(4!, 5) \times 2^{3!}.$
$\mathbf{54549} := (-5+4!) \times \boldsymbol{P}(5+4!, 9).$

$\mathbf{55435} := (\boldsymbol{P}(5,5) - 4!)!/3!! - 5.$
$\mathbf{55439} := ((\boldsymbol{P}(5,5) - 4!)! - 3!!)/(\sqrt{9})!!.$
$\mathbf{55464} := (\boldsymbol{P}(5,5) - 4!)!/6! + 4!.$
$\mathbf{57984} := (5! + \boldsymbol{P}(\boldsymbol{P}(7, \sqrt{9}), 8)) \times 4!.$
$\mathbf{59044} := -5 + 9^{0! + \sqrt{\boldsymbol{P}(4,4)}}.$

$\mathbf{59054} := 5 + 9^{\sqrt{\boldsymbol{P}(05,4)}}.$
$\mathbf{59544} := (-5! + \boldsymbol{P}((\sqrt{9})!, 5)^{\sqrt{4}}) \times 4!.$
$\mathbf{60564} := (6! + 0!) \times (5! - \boldsymbol{P}(6,4)).$
$\mathbf{65376} := -6!/5 + 3!! \times \boldsymbol{P}(7,6).$
$\mathbf{65485} := -\boldsymbol{P}(6,5) + \sqrt{4} \times 8^5.$
$\mathbf{65943} := \boldsymbol{P}(6,5) \times ((\sqrt{9})!^4 - 3).$

$\mathbf{67977} := (6+7) \times (\boldsymbol{P}(9,7) + 7!).$
$\mathbf{72495} := -\boldsymbol{P}(7+2, 4) + 9!/5.$
$\mathbf{72584} := (7+2)!/5 + \sqrt{\boldsymbol{P}(8,4)}.$
$\mathbf{73440} := (7! - 3!!) \times (\boldsymbol{P}(4,4) + 0!).$
$\mathbf{74431} := 7^{\sqrt{\boldsymbol{P}(4,4)}} \times 31.$

$\mathbf{74529} := \boldsymbol{P}(7, (\sqrt{4+5})!)^2 \times 9.$
$\mathbf{75344} := 7! \times \boldsymbol{P}(5,3) - 4^4.$
$\mathbf{76531} := \boldsymbol{P}(7,6) \times (5! + 3!! + 1).$
$\mathbf{77565} := (-\boldsymbol{P}(7,7) + 5^6) \times 5.$

77946 $:= \boldsymbol{P}(7,7) \times ((\sqrt{9})!! - 4!) - 6.$

79382 $:= (\boldsymbol{P}(7,(\sqrt{9})!) - 3!! + 8!) \times 2.$

79829 $:= -\boldsymbol{P}(7,(\sqrt{9})!) + 8! \times 2 - (\sqrt{9})!!.$

79948 $:= \boldsymbol{P}(7,\sqrt{9}) - (\sqrt{9})!! + \sqrt{4} \times 8!.$

80548 $:= -\boldsymbol{P}(8,05) + \sqrt{4} \times 8!.$

80793 $:= 8! + (0! + 7)! + \boldsymbol{P}(9,3!).$

81632 $:= (8! + \boldsymbol{P}(16,3!)) \times 2.$

81762 $:= (8! + \boldsymbol{P}(17,6)) \times 2.$

82293 $:= 8! \times 2 + \boldsymbol{P}(29,3!).$

83496 $:= 8! \times \boldsymbol{P}(-3 + 4!,9)/6!.$

83544 $:= \sqrt{\boldsymbol{P}(8,3)} \times (5! - \sqrt{4})^{\sqrt{4}}.$

85756 $:= -\boldsymbol{P}(8,5) \times 7 + 5! \times 6!.$

86160 $:= \boldsymbol{P}(8,6) \times (-1 + 6! - 0!).$

86280 $:= \boldsymbol{P}(8,6) \times ((-2 + 8)! - 0!).$

86304 $:= \boldsymbol{P}(8,6) \times (3!! - 0!) + 4!.$

86350 $:= \boldsymbol{P}(8,6) \times 3!! - 50.$

86364 $:= \boldsymbol{P}(8,6) \times 3!! - \boldsymbol{P}(6,4).$

86379 $:= \boldsymbol{P}(8,6) \times 3!! - 7 \times \sqrt{9}.$

86384 $:= \boldsymbol{P}(8,6) \times 3!! - 8 \times \sqrt{4}.$

86386 $:= \boldsymbol{P}(8,6) \times 3!! - 8 - 6.$

86389 $:= \boldsymbol{P}(8,6) \times 3!! - 8 - \sqrt{9}.$

86390 $:= \boldsymbol{P}(8,6) \times 3!! - 9 - 0!.$

86391 $:= \boldsymbol{P}(8,6) \times 3!! - 9 \times 1.$

86392 $:= \boldsymbol{P}(8,6) \times 3!! - (\sqrt{9})! - 2.$

86394 $:= \boldsymbol{P}(8,6) \times 3!! - \sqrt{9 \times 4}.$

86398 $:= \boldsymbol{P}(8,6) \times 3!! + (\sqrt{9})! - 8.$

86399 $:= \boldsymbol{P}(8,6) \times 3!! - 9/9.$

86424 $:= \boldsymbol{P}(8,6) \times (4 + 2)! + 4!.$

86436 $:= (\boldsymbol{P}(8,6)^{\sqrt{4}} + 3!) \times 6.$

86520 $:= \boldsymbol{P}(8,6) \times ((5 - 2)!! + 0!).$

86597 $:= 8 + 6! \times 5! + \boldsymbol{P}(9,7).$

86864 $:= (-8 + 6!) \times (\boldsymbol{P}(8,6) + \sqrt{4}).$

86984 $:= 8 + 6^{(\sqrt{9})!} + (\sqrt{\boldsymbol{P}(8,4)})!.$

87355 $:= 8 \times \boldsymbol{P}(7,3!) \times 5! - 5.$

89994 $:= -\sqrt{\boldsymbol{P}(8,\sqrt{9})} + (\sqrt{9})!! + 9!/4.$

92244 $:= (9! + \boldsymbol{P}((2 + 2)!,4!))/4.$

93984 $:= \boldsymbol{P}((\sqrt{9})!,3!) \times ((\sqrt{9})!! - 8) \times \sqrt{4}.$

94957 $:= -\sqrt{9} + \boldsymbol{P}(4,\sqrt{9})^5 - 7!.$

96543 $:= \boldsymbol{P}(9,6) \times (5^4 + 3!).$

96984 $:= 9 \times (6! \times \sqrt{\boldsymbol{P}(9,8)} - 4!).$

97920 $:= (\sqrt{9})!! \times \boldsymbol{P}(7 + 9,2 + 0!).$

98535 $:= \sqrt{9^8} \times \boldsymbol{P}(5,3) + 5!.$

99543 $:= \sqrt{9^9} \times 5 + \boldsymbol{P}(4!,3!).$

3.3 Reverse Order of Digits

Below are written numbers in reverse order of digits. The initial numbers are in symmetric way from 0 to 9 and then the other numbers.

5640 $:= 0 + \boldsymbol{P}(4!,6) \times 5.$

5641 $:= 1 + \boldsymbol{P}(4!,6) \times 5.$

5642 $:= 2 + \boldsymbol{P}(4!,6) \times 5.$

5643 $:= 3 + \boldsymbol{P}(4!,6) \times 5.$

5644 $:= 4 + \boldsymbol{P}(4!,6) \times 5.$

5645 $:= 5 + \boldsymbol{P}(4!,6) \times 5.$

5646 $:= 6 + \boldsymbol{P}(4!,6) \times 5.$

5647 $:= 7 + \boldsymbol{P}(4!,6) \times 5.$

5648 $:= 8 + \boldsymbol{P}(4!,6) \times 5.$

5649 $:= 9 + \boldsymbol{P}(4!,6) \times 5.$

00840 $:= 0 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00841 $:= 1 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00842 $:= 2 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00843 $:= 3 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00844 $:= 4 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00845 $:= 5 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00846 $:= 6 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00847 $:= 7 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00848 $:= 8 + \boldsymbol{P}(4!,8)/(0! + 0!).$

00849 $:= 9 + \boldsymbol{P}(4!,8)/(0! + 0!).$

01540 $:= 0 + \boldsymbol{P}(4 \times 5, 10)$.
01541 $:= 1 + \boldsymbol{P}(4 \times 5, 10)$.
01542 $:= 2 + \boldsymbol{P}(4 \times 5, 10)$.
01543 $:= 3 + \boldsymbol{P}(4 \times 5, 10)$.
01544 $:= 4 + \boldsymbol{P}(4 \times 5, 10)$.
01545 $:= 5 + \boldsymbol{P}(4 \times 5, 10)$.
01546 $:= 6 + \boldsymbol{P}(4 \times 5, 10)$.
01547 $:= 7 + \boldsymbol{P}(4 \times 5, 10)$.
01548 $:= 8 + \boldsymbol{P}(4 \times 5, 10)$.
01549 $:= 9 + \boldsymbol{P}(4 \times 5, 10)$.

73440 $:= 0 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73441 $:= 1 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73442 $:= 2 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73443 $:= 3 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73444 $:= 4 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73445 $:= 5 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73446 $:= 6 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73447 $:= 7 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73448 $:= 8 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.
73449 $:= 9 + 4! \times \boldsymbol{P}(4!, 3! + 7)$.

189 $:= \boldsymbol{P}(9, 8 - 1)$.
325 $:= \boldsymbol{P}(5^2, 3)$.

3384 $:= \boldsymbol{P}(4!, \sqrt{\boldsymbol{P}(8,3)}) \times 3$.
3843 $:= \boldsymbol{P}(-3 + 4!, 8) \times 3$.
3925 $:= \boldsymbol{P}(5^2, 9 + 3!)$.
4225 $:= \boldsymbol{P}(5^2, 2^4)$.
4356 $:= \boldsymbol{P}(6 + 5, 3)^{\sqrt{4}}$.

0148 $:= \boldsymbol{P}(8, (4 - 1)! + 0!)$.
0179 $:= \boldsymbol{P}(9, 7) - 10$.
0273 $:= 3 \times \boldsymbol{P}(7, (2 + 0!)!)$.

4489 $:= (\sqrt{9} + \boldsymbol{P}(8, 4))^{\sqrt{4}}$.
4784 $:= -\sqrt{4^8} + (\sqrt{\boldsymbol{P}(7,4)})!$.
4977 $:= 7! - 7 \times \sqrt{\boldsymbol{P}(9,4)}$.
5395 $:= 5! \times \boldsymbol{P}(9, 3) - 5$.

0288 $:= 8 \times \boldsymbol{P}(8, 2 + 0!)$.
0377 $:= \boldsymbol{P}(7 + 7, 3!) - 0!$.
0435 $:= \boldsymbol{P}(\boldsymbol{P}(5,3), (\sqrt{4} + 0!)!)$.
0564 $:= \boldsymbol{P}(4!, 6) / \sqrt{5 - 0!}$.
0637 $:= \boldsymbol{P}(7, 3!) \times (6 + 0!)$.

5425 $:= \boldsymbol{P}(5^2, 4 \times 5)$.
5888 $:= 8 \times 8 \times \boldsymbol{P}(8, 5)$.
6624 $:= 4! \times \boldsymbol{P}(2 \times 6, 6)$.
8405 $:= 5 \times (0! + \boldsymbol{P}(4!, 8))$.
8967 $:= 7 \times \boldsymbol{P}(\boldsymbol{P}(6, \sqrt{9}), 8)$.
9504 $:= 4! \times \boldsymbol{P}(\sqrt{0! + 5!}, 9)$.
9744 $:= 4! \times \boldsymbol{P}(4 \times 7, \sqrt{9})$.

0699 $:= (-\boldsymbol{P}((\sqrt{9})!, \sqrt{9}) + 6!) \times 0!$.
0735 $:= \boldsymbol{P}(5, 3) + (7 - 0!)!$.
0745 $:= \boldsymbol{P}(5, 4) + (7 - 0!)!$.
0755 $:= \boldsymbol{P}(5, 5) + (7 - 0!)!$.
0925 $:= \boldsymbol{P}(5^2, (\sqrt{9})! - 0!)$.

1225 $:= \boldsymbol{P}(5^2, (2 + 1)!)$.
1404 $:= \boldsymbol{P}(4!, 0! + (4 - 1)!)$.
1654 $:= \boldsymbol{P}(4! + 5, 6) + 1$.
1825 $:= \boldsymbol{P}(5^2, 8 \times 1)$.
1948 $:= -8 + \boldsymbol{P}(4!, 9) \times 1$.
1955 $:= \boldsymbol{P}(5!/5, 9) - 1$.

00178 $:= \boldsymbol{P}(8, 7 + 1) + 0! + 0!$.
00435 $:= \boldsymbol{P}(\boldsymbol{P}(5,3), 4 + 0! + 0!)$.
00439 $:= \boldsymbol{P}((\sqrt{9})!, 3)^{\sqrt{4}} - 0! - 0!$.
00459 $:= -\boldsymbol{P}(9, 5) + 4!^{0!+0!}$.
00493 $:= 3! \times (\boldsymbol{P}(9, 4) + 0!) + 0!$.
00578 $:= 8!/\boldsymbol{P}(7, 5) + 0! + 0!$.

00673 $:= 3! \times \boldsymbol{P}(7, 6+0!) + 0!$.
00781 $:= \boldsymbol{P}(18, 7) - 0! - 0!$.
00854 $:= \boldsymbol{P}(4!, 5) + (8 \times 0)! + 0!$.
00948 $:= \boldsymbol{P}(8+4, 9) \times (0! + 0!)$.
00971 $:= \boldsymbol{P}(17, 9) + 0! + 0!$.
01128 $:= \boldsymbol{P}((8/2)!, (1+1+0!)!)$.
01134 $:= \boldsymbol{P}(4!, 3!) + (1+1+0!)!$.

01225 $:= \boldsymbol{P}(5^2, (2+1+0)!)$.
01242 $:= \boldsymbol{P}(2^4 + 2, 10)$.
01298 $:= \boldsymbol{P}(8, \sqrt{9})^2 + 1 + 0!$.
01324 $:= \boldsymbol{P}(4! + 2, 3!) - 1 - 0!$.
01353 $:= 3 \times \boldsymbol{P}(5 + 3!, 10)$.
01374 $:= \boldsymbol{P}(4!, 7) - 3 \times 10$.

01525 $:= \boldsymbol{P}(5^2, 5+1+0!)$.
01684 $:= \boldsymbol{P}(4!, 8) + \sqrt{6+10}$.
01772 $:= \boldsymbol{P}(27, 7) - 10$.
01849 $:= (\sqrt{9})!! + \boldsymbol{P}(4!, (\sqrt{8+1})!) + 0!$.
01899 $:= -(\sqrt{9})! + \sqrt{\boldsymbol{P}(9, 8) + 10!}$.
01946 $:= \boldsymbol{P}(6 \times 4, 9) - 10$.

01947 $:= -7 + \boldsymbol{P}(4!, 9) - 1 - 0!$.
01949 $:= \sqrt{9} + \boldsymbol{P}(4!, 9) - 10$.
02184 $:= 4! \times \boldsymbol{P}(8-1, (2+0!)!)$.
02408 $:= 8 \times (0! + \boldsymbol{P}(4!, 2+0!))$.
02487 $:= (7! - \boldsymbol{P}(8, 4))/2 - 0!$.
02514 $:= \boldsymbol{P}(4!, \sqrt{1+5!}) + (2+0!)!$.
02547 $:= \boldsymbol{P}(7, 4) \times 52 - 0!$.

02548 $:= -8 + \boldsymbol{P}(4!, 5) \times (2+0!)$.
02549 $:= \sqrt{9} \times (\boldsymbol{P}(4!, 5) - 2) - 0!$.
02596 $:= -6 + \boldsymbol{P}((\sqrt{9})!, 5)^2 + 0!$.
02599 $:= -\sqrt{9} + \boldsymbol{P}((\sqrt{9})!, 5)^2 + 0!$.
02674 $:= \boldsymbol{P}(4 \times 7, 6+2+0!)$.
02784 $:= \boldsymbol{P}(4!, 8 + \sqrt{7+2} + 0!)$.

02834 $:= \boldsymbol{P}(4! + 3, 8+2) - 0!$.
02964 $:= 4 \times (6! + \boldsymbol{P}((\sqrt{9})!, 2+0!))$.
02976 $:= 6 \times \boldsymbol{P}(7+9, (2+0!)!)$.
03084 $:= -\boldsymbol{P}(4!, 8+0!) + (3! + 0!)!$.
03315 $:= 51 \times (\boldsymbol{P}(3!, 3!) - 0!)$.
03325 $:= \boldsymbol{P}(5^2, 3! + 3! + 0!)$.
03366 $:= 66 \times \boldsymbol{P}(3!, 3! - 0!)$.

03367 $:= \boldsymbol{P}(7, 6) \times (3! \times 3! + 0!)$.
03383 $:= \boldsymbol{P}(3 \times 8, 3!) \times 3 - 0!$.
03394 $:= (\boldsymbol{P}(4!, (\sqrt{9})!) + 3) \times 3 + 0!$.
03396 $:= 6 \times (-\boldsymbol{P}(9, 3!) + 3!! - 0!)$.
03404 $:= 4 \times (-0! + \boldsymbol{P}(4!, 3! - 0!))$.
03584 $:= \sqrt{4^8} \times (\boldsymbol{P}(5, 3) - 0!)$.
03672 $:= \boldsymbol{P}(2+7, 6) \times (3+0!)!$.

03869 $:= \boldsymbol{P}(9+6, 8) \times 3! - 0!$.
03884 $:= \boldsymbol{P}(4!, 8+8) - 3 - 0!$.
03888 $:= \boldsymbol{P}((\sqrt{8+8})!, 8 \times (3-0!))$.
03925 $:= \boldsymbol{P}(5^2, 9 + (3+0)!)$.
03942 $:= 2 \times \boldsymbol{P}(4!, 9) + 30$.
04236 $:= \boldsymbol{P}(6, 3!)^2 - (4+0!)!$.

04333 $:= 3! \times (\boldsymbol{P}(3, 3)! + \sqrt{4}) + 0!$.
04338 $:= ((\sqrt{\boldsymbol{P}(8, 3)})! + 3) \times (\sqrt{4} + 0!)!$.
04393 $:= 3!! + \boldsymbol{P}(9, 3!) \times 4! + 0!$.
04434 $:= \boldsymbol{P}(4!, -3! + 4!) - (\sqrt{4} + 0!)!$.
04677 $:= 7! - \boldsymbol{P}(7, 6) \times 4 + 0!$.
04679 $:= (\boldsymbol{P}(9, 7) + 6) \times 4! - 0!$.
04699 $:= \boldsymbol{P}(9, 9) \times (-6 + 4!) + 0!$.

04734 $:= -\boldsymbol{P}(4!, 3) + 7! - (\sqrt{4} + 0!)!$.
04857 $:= 7! - 5! - \boldsymbol{P}(8, 4) + 0!$.
04887 $:= 7! - \boldsymbol{P}(8, 8) + 4! - 0!$.
04972 $:= -2 + 7! - \boldsymbol{P}((\sqrt{9})!, (\sqrt{4} + 0!)!)$.
04987 $:= 7! - 8 - \boldsymbol{P}(9, \sqrt{4} + 0!)$.
04992 $:= \boldsymbol{P}((-2 + (\sqrt{9})!)!, -\sqrt{9} + 4! - 0!)$.
05376 $:= -6! + \boldsymbol{P}((7-3)!, (5-0!)!)$.

05393 $:= -3! + \boldsymbol{P}(9,3) \times 5! - 0!.$
05399 $:= \boldsymbol{P}(9,9/3) \times 5! - 0!.$
05424 $:= \boldsymbol{P}(4!,-2+4!) - (5+0)!.$
05544 $:= \boldsymbol{P}(4!,-4+5\times 5+0!).$
05677 $:= 7 \times (\boldsymbol{P}(7,6) + (5+0!)!).$
05724 $:= 4 \times \boldsymbol{P}(27,5+0!).$
05744 $:= -\boldsymbol{P}(4,4) + 7! + (5+0!)!.$

05994 $:= \boldsymbol{P}(4!+\sqrt{9},\sqrt{\sqrt{9}\times 5!+0!}).$
06481 $:= \sqrt{\boldsymbol{P}(1+8,4)} \times 6! + 0!.$
06622 $:= \boldsymbol{P}(22,6) \times (6+0!).$
06625 $:= 5 \times (\boldsymbol{P}(26,6) - 0!).$
07344 $:= 4! \times (\boldsymbol{P}(4!,3) + 7 - 0!).$
07937 $:= 7 \times 3! \times \boldsymbol{P}(9,7) - 0!.$
08405 $:= 5 \times (\boldsymbol{P}((04)!,8) + 0!).$

08424 $:= (4+2) \times \boldsymbol{P}(4!,8-0!).$
08435 $:= 5 \times (3! + \boldsymbol{P}(4!,8) + 0!).$
08447 $:= (-7! + \boldsymbol{P}(4!,4!)) \times 8 - 0!.$
08458 $:= \boldsymbol{P}(8,5)^{\sqrt{4}} - (\sqrt{8+0!})!.$
08469 $:= \boldsymbol{P}(\sqrt{\sqrt{9^6}},4!) + (\sqrt{8+0!})!!.$
08946 $:= 6 \times \boldsymbol{P}(4!-\sqrt{9},8+0!).$
09024 $:= \boldsymbol{P}(4!,(2+0!)!) \times (9-0!).$

09314 $:= \boldsymbol{P}(4!-1,3!) \times 9 - 0!.$
09359 $:= \boldsymbol{P}(9,5) \times 3!!/9 - 0!.$
09456 $:= 6^5 + \boldsymbol{P}(4!,9-0!).$
09457 $:= 7 \times (\boldsymbol{P}(5\times 4,9) + 0!).$
09784 $:= \sqrt{4} \times (-\boldsymbol{P}(8,7) + ((\sqrt{9})! + 0!)!).$

09936 $:= 6^3 \times (\boldsymbol{P}(9,\sqrt{9}) + 0!).$
12768 $:= (\boldsymbol{P}(8,6) - 7)^2 - 1.$
13448 $:= (8! + 4!)/\sqrt{\boldsymbol{P}(4,3) - 1}.$
13495 $:= -5 \times (-9 \times \boldsymbol{P}(4!,3) + 1).$
13499 $:= \boldsymbol{P}(9,\sqrt{9}) \times \boldsymbol{P}(4!,3) - 1.$
13734 $:= 4!^3 - \boldsymbol{P}(7,3!) + 1.$

14664 $:= \boldsymbol{P}(4!,6) \times (6 \times \sqrt{4} + 1).$
14784 $:= \boldsymbol{P}(4!-8,7) \times 4! \times 1.$
14835 $:= \boldsymbol{P}(\boldsymbol{P}(5,3),8) \times (4! - 1).$
15049 $:= (\sqrt{9})! \times \boldsymbol{P}(4!,\sqrt{0!+5!}) + 1.$
15488 $:= \boldsymbol{P}(8,8)^{\sqrt{4}}/\sqrt{5-1}.$

15597 $:= -\boldsymbol{P}(7,\sqrt{9}) + 5^{5+1}.$
16345 $:= \boldsymbol{P}(5,4)^3 + 6! \times 1.$
16384 $:= 4^{\boldsymbol{P}(8,3)/6+1}.$
16448 $:= \boldsymbol{P}(8,4) + 4^{6+1}.$
16537 $:= (\boldsymbol{P}(7,3) - 5) \times (6! - 1).$
17537 $:= \boldsymbol{P}(7+3!,5) \times 71.$
22338 $:= (8! + \boldsymbol{P}(3!,3!)^2)/2.$
23344 $:= \boldsymbol{P}(4,4) + 3!^{3!}/2.$

23409 $:= \boldsymbol{P}(9,(0\times 4+3)!)^2.$
23496 $:= \boldsymbol{P}(6,(\sqrt{9})!) \times (-4 + 3!!/2).$
24575 $:= 5 \times 7! - \boldsymbol{P}(5,4)^2.$
24649 $:= (\boldsymbol{P}(\sqrt{\boldsymbol{P}(9,4)},6) + 4)^2.$
24975 $:= 5 \times 7! - \boldsymbol{P}(9,4\times 2).$
24984 $:= \boldsymbol{P}(4!,8+9) \times (4+2).$
25899 $:= -\boldsymbol{P}((\sqrt{9})!,\sqrt{9}) + 8! - 5!^2.$

27648 $:= \boldsymbol{P}(8,4) \times 6 \times 72.$
27889 $:= (-9 + \boldsymbol{P}(8,8!/7!))^2.$
28894 $:= \boldsymbol{P}(4!,\sqrt{\boldsymbol{P}(9,8)}) \times 8 - 2.$
28895 $:= -5 + (-(\sqrt{9})! + \boldsymbol{P}(8,8))^2.$
29954 $:= \boldsymbol{P}(4!,5!/(\sqrt{9})!) \times (\sqrt{9})! + 2.$
31955 $:= \boldsymbol{P}(5,5) \times 913.$
32394 $:= (4 \times \boldsymbol{P}(9,3))^2 - 3!.$
32395 $:= -5 + \boldsymbol{P}(9,3) \times (2\times 3)!.$

32396 $:= 6! \times \boldsymbol{P}(9,3) + 2 - 3!.$
32849 $:= \boldsymbol{P}(9,4) + 8^{2+3}.$
33258 $:= \boldsymbol{P}(8,5)/2 \times (3!! + 3).$
33456 $:= \boldsymbol{P}(6,5) \times (-4^3 + 3!!).$
33488 $:= 8 \times 8^4 + \boldsymbol{P}(3,3)!.$
33498 $:= 8! + (-9 - \boldsymbol{P}(4!,3!)) \times 3!.$

33572 $:= 2 \times (7^5 - \boldsymbol{P}(3!,3))$.
33744 $:= 4! \times (\boldsymbol{P}(4!,7) + 3!/3)$.
33924 $:= (\sqrt{4} + 2^9) \times \boldsymbol{P}(3!,3!)$.
34224 $:= -\boldsymbol{P}(4!,(2+2)!) + (\sqrt{4^3})!$.
34248 $:= 8! - 4! \times \boldsymbol{P}(-2+4!,3)$.

34464 $:= (-\sqrt{4} + 6!) \times \boldsymbol{P}(4,4) \times 3$.
34577 $:= 7! \times 7 - \boldsymbol{P}(-5+4!,3!)$.
34593 $:= (\boldsymbol{P}(3!,(\sqrt{9})!) + 5!)^{\sqrt{4}} - 3$.
34599 $:= (\boldsymbol{P}((\sqrt{9})!,(\sqrt{9})!) + 5!)^{\sqrt{4}} + 3$.
34968 $:= 8! - 6! \times 9 + \boldsymbol{P}(4!,3!)$.

35328 $:= 8! - \boldsymbol{P}((-2+3!)!,5!/3!)$.
35378 $:= 8! - \boldsymbol{P}(\boldsymbol{P}(7,3),\boldsymbol{P}(5,3))$.
35748 $:= 8! + (-\boldsymbol{P}(4!,7) + 5!) \times 3$.
35754 $:= (\boldsymbol{P}(4!,5) \times 7 - 5) \times 3!$.
35937 $:= (7 + \boldsymbol{P}(3!,\sqrt{9}) + 5)^3$.
35994 $:= \boldsymbol{P}(4!,9/\sqrt{9}) \times 5! - 3!$.

35995 $:= -5 + (\boldsymbol{P}(9,\sqrt{9}) + 5) \times 3!!$.
36431 $:= -1 + 3 \times 4!!/\boldsymbol{P}(6,3)!$.
36432 $:= 23 \times 4! \times \boldsymbol{P}(6,3!)$.
36434 $:= \sqrt{4} + 3 \times 4!!/\boldsymbol{P}(6,3)!$.
36723 $:= \boldsymbol{P}(3!,-2+7) \times 6! + 3$.
36726 $:= \boldsymbol{P}(6,-2+7) \times 6! + 3!$.

37449 $:= 9 \times (\boldsymbol{P}(4!,4!-7) - 3)$.
37464 $:= 4! + 6! \times (4! + \boldsymbol{P}(7,3))$.
37468 $:= 8! - 6! \times 4 + \boldsymbol{P}(7,3)$.
37478 $:= 8! - 7 \times \boldsymbol{P}(4 \times 7,3)$.
37882 $:= 2^8 \times \boldsymbol{P}(8,7) - 3!$.
38094 $:= -\boldsymbol{P}(4!,9+0!) + 8! + 3!$.

38448 $:= 8! - 4! \times \boldsymbol{P}(4+8,3)$.
38799 $:= 9 \times (-9 + 7! - (\sqrt{\boldsymbol{P}(8,3)})!)$.
38873 $:= -3!! - 7 + 8! - (\sqrt{\boldsymbol{P}(8,3)})!$.
38952 $:= (2 + 5! \times 9) \times \boldsymbol{P}(8,3)$.
39088 $:= 8! - 8 \times (0! + \boldsymbol{P}(9,3!))$.
39186 $:= -6 + 8! - \boldsymbol{P}((1+\sqrt{9})!,3!)$.
39189 $:= -\sqrt{9} + 8! - \boldsymbol{P}((1+\sqrt{9})!,3!)$.
39192 $:= (2^{\sqrt{9}})! - \boldsymbol{P}((1+\sqrt{9})!,3!)$.
39459 $:= (\sqrt{9}+5)! - \boldsymbol{P}(4! - \sqrt{9},3!)$.
39578 $:= 8! - 7 - \boldsymbol{P}(5,\sqrt{9}) - 3!!$.
39786 $:= -6 + 8 \times (7! - \boldsymbol{P}((\sqrt{9})!,3!))$.
39789 $:= -\sqrt{9} + 8 \times (7! - \boldsymbol{P}((\sqrt{9})!,3!))$.
39798 $:= 8! + \boldsymbol{P}(9,7) + 9 - 3!!$.

39924 $:= (4 \times 2)! - \boldsymbol{P}((\sqrt{9})!,(\sqrt{9})!) \times 3!$.
39939 $:= \boldsymbol{P}(9,3!) \times \boldsymbol{P}(9,9) + 3!$.
39948 $:= 8! - \boldsymbol{P}(4! + \sqrt{9},\sqrt{9}) + 3!$.
40345 $:= \boldsymbol{P}(5,4) + (3! + \sqrt{04})!$.
40355 $:= \boldsymbol{P}(5,5) + (3! + \sqrt{04})!$.

40358 $:= 8! + \boldsymbol{P}(5,3) - 0! + 4!$.
40371 $:= (1+7)! + \boldsymbol{P}(3!,0!+4)$.
40378 $:= 8! + (\boldsymbol{P}(7,3) + 0!) \times \sqrt{4}$.
40698 $:= 8! + \boldsymbol{P}(9,6+0!) \times \sqrt{4}$.
41448 $:= 8! + \boldsymbol{P}(4!,(4-1^4)!)$.
41568 $:= 8! + (\boldsymbol{P}(6,5) + 1) \times 4!$.

42944 $:= (-4 + \boldsymbol{P}(4!,9)) \times (-2 + 4!)$.
43979 $:= 9 \times (7! - \boldsymbol{P}(9,3!)) - 4$.
43986 $:= -6 + 8! + \boldsymbol{P}(9,3!) \times 4!$.
43989 $:= -\sqrt{9} + 8! + \boldsymbol{P}(9,3!) \times 4!$.
43998 $:= 8! + (\sqrt{9})! + \boldsymbol{P}(9,3!) \times 4!$.
44925 $:= 5 \times (\boldsymbol{P}(29,4!) + 4!)$.
45999 $:= \boldsymbol{P}(4!,5) \times (\sqrt{9})! \times 9 - 9$.

46148 $:= \boldsymbol{P}(8,4) \times (1 + 6!) + 4$.
46494 $:= \boldsymbol{P}(4! + \sqrt{9},4!) \times \sqrt{\boldsymbol{P}(6,4)}$.
46496 $:= \boldsymbol{P}(\sqrt{6!+9},4!) \times 6 + \sqrt{4}$.
46691 $:= -1 + (\sqrt{9})!^6 + \boldsymbol{P}(6,4)$.
46692 $:= (2 \times \sqrt{9})^6 + \boldsymbol{P}(6,4)$.

46695 $:= \boldsymbol{P}(5,\sqrt{9}) + 6^6 + 4!$.
46848 $:= \boldsymbol{P}(8,4) \times (8 + 6! + 4)$.
47089 $:= (\boldsymbol{P}(9,8) - 0! - 7)^{\sqrt{4}}$.

47369 $:= (\sqrt{9})!^6 + 3!! - \sqrt{\boldsymbol{P}(7,4)}$.
48096 $:= 6^{(\sqrt{9})!-0!} + (\sqrt{\boldsymbol{P}(8,4)})!$.
48746 $:= 6 \times \boldsymbol{P}(4!,7) + 8! + \sqrt{4}$.
49281 $:= 1 \times 8! + \boldsymbol{P}(29,4!)$.
49548 $:= -8! - \boldsymbol{P}(4!,5) + 9!/4$.

50424 $:= 4! \times \boldsymbol{P}(-2+4!, \sqrt{0!+5!})$.
52895 $:= (5+\boldsymbol{P}(9,8))^2 - 5$.
53995 $:= (5! - \boldsymbol{P}(9,\sqrt{9})) \times 3!! - 5$.
53995 $:= -5 - 3!! \times (\boldsymbol{P}(9,\sqrt{9}) - 5!)$.
54264 $:= \boldsymbol{P}(4!,6) \times 2 \times 4! + 5!$.

54984 $:= \boldsymbol{P}(4+8,9) \times (-4+5!)$.
55488 $:= 8 \times (8 \times \boldsymbol{P}(4!,5) + 5!)$.
56405 $:= 50 \times \boldsymbol{P}(4!,6) + 5$.
59035 $:= -\boldsymbol{P}(5,3) + 0! + 9^5$.
59049 $:= (\boldsymbol{P}(9,4)/09)^5$.

59168 $:= \boldsymbol{P}(8,6) - 1 + 9^5$.
59259 $:= 9^5 + \boldsymbol{P}(2 \times (\sqrt{9})!, 5)$.
59343 $:= -3! + \boldsymbol{P}(4!,3) + 9^5$.
59349 $:= \boldsymbol{P}((\sqrt{9})! \times 4, 3) + 9^5$.
59904 $:= \sqrt{4^{09}} \times \boldsymbol{P}(9,5)$.
59949 $:= \sqrt{9} \times \boldsymbol{P}(4!,\sqrt{9}) + 9^5$.
62436 $:= \boldsymbol{P}(6,3!) \times \boldsymbol{P}(4!-2,6)$.

63168 $:= 8!/6! \times \boldsymbol{P}((1+3)!,6)$.
63888 $:= (\boldsymbol{P}(8,8)/8)^3 \times 6$.
64395 $:= 5 \times 9 \times \boldsymbol{P}(3+4!,6)$.
65897 $:= -7^{\sqrt{9}} + \boldsymbol{P}(8,5) \times 6!$.
67704 $:= (4! + (-0!+7)!) \times \boldsymbol{P}(7,6)$.
68448 $:= (8! - \boldsymbol{P}(4!,4!)) \times (8-6)$.
73359 $:= 9!/5 + \boldsymbol{P}(3 \times 3!, 7)$.
73944 $:= 4! \times (-\boldsymbol{P}(4!,9) - 3 + 7!)$.
74295 $:= 5 \times 9 \times \boldsymbol{P}(2+4!,7)$.
75635 $:= (\boldsymbol{P}(5,3) \times 6! + 5) \times 7$.

76335 $:= 5 \times \boldsymbol{P}(3!,3) \times (6!+7)$.
77392 $:= (-29 + 3!!) \times \boldsymbol{P}(7,7)$.
78275 $:= 5^7 + 2 + \boldsymbol{P}(8,7)$.
78848 $:= \boldsymbol{P}(8,4) \times \boldsymbol{P}(8,8) \times 7$.

82344 $:= \sqrt{4} \times (\boldsymbol{P}(4!,3+2) + 8!)$.
83195 $:= \boldsymbol{P}(5,(\sqrt{9})! - 1)^3 + 8!$.
84456 $:= \boldsymbol{P}(6,5) \times (-4! + \boldsymbol{P}(4!,8))$.
84864 $:= (-4! + 6!) \times \boldsymbol{P}(8,4) + 8!$.
85344 $:= \boldsymbol{P}(4!,4!) \times (3!!/5! + 8)$.

87594 $:= (\boldsymbol{P}(4!,(\sqrt{9})!) - 5) \times 78$.
87984 $:= \boldsymbol{P}(4!,\sqrt{\boldsymbol{P}(8,\sqrt{9})}) \times 78$.
88697 $:= -7 + 9!/6! \times \boldsymbol{P}(8,8)$.
89775 $:= 57 \times 7 \times \boldsymbol{P}(9,8)$.
92928 $:= \boldsymbol{P}(8,2^{\sqrt{9}})^2 \times \sqrt{9}$.

93248 $:= -\boldsymbol{P}(8,4) + 2 \times 3!^{(\sqrt{9})!}$.
93384 $:= \sqrt{4} \times (\boldsymbol{P}(8,3) + 3!^{(\sqrt{9})!})$.
93594 $:= (\boldsymbol{P}(4,\sqrt{9}) + 5!) \times 3!! - (\sqrt{9})!$.
93744 $:= (-4! \times 4! + 7!) \times \boldsymbol{P}(3!,\sqrt{9})$.
93894 $:= \boldsymbol{P}(4!,9) \times 8 \times 3! + (\sqrt{9})!$.
94356 $:= (\boldsymbol{P}(6,5) \times 3!)^{\sqrt{4}} + (\sqrt{9})!!$.
95436 $:= (6!+3) \times (\boldsymbol{P}(4!,5) - (\sqrt{9})!!)$.
95745 $:= (-5+4!) \times 7! - \boldsymbol{P}(5,\sqrt{9})$.

97364 $:= 46^3 + \boldsymbol{P}(7,\sqrt{9})$.
98464 $:= (4+6!) \times \boldsymbol{P}(4!-8,\sqrt{9})$.
98649 $:= \boldsymbol{P}(9,4) \times 6! + 8! + 9$.
99753 $:= (3+5!) \times (\boldsymbol{P}(7,(\sqrt{9})!) + (\sqrt{9})!!)$.
99756 $:= \boldsymbol{P}(6,5) \times \boldsymbol{P}((\sqrt{7+9})!, 9)$.

4 Selfie Numbers with Centered Polygonal Numbers

From now onwards we shall use the notation $\boldsymbol{K}(n,t)$ for **centered polygonal numbers**, i.e.,

$$\boldsymbol{K}(n,t) := \boldsymbol{K_t}(n),\ t \geq 3.$$

From mathematical point of view, we can calculate values of $K(n,t)$ for $t \leq 2$, but from practical point of view, **centered polygonal numbers** are considered for $t \geq 3$.

Subsections below give examples of **centered polygonal selfie numbers** in five different ways.

4.1 Symmetric: Both Ways

$$\begin{aligned}
\mathbf{33120} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 0 = 0 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33121} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 1 = 1 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33122} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 2 = 2 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33123} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 3 = 3 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33124} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 4 = 4 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33125} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 5 = 5 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33126} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 6 = 6 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33127} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 7 = 7 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33128} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 8 = 8 + (2+1)!! \times \boldsymbol{K}(3!, 3).\\
\mathbf{33129} &:= 3!! \times \boldsymbol{K}(3!, 1+2) + 9 = 9 + (2+1)!! \times \boldsymbol{K}(3!, 3).
\end{aligned}$$

$$\begin{aligned}
\mathbf{33350} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 0 = 0 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33351} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 1 = 1 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33352} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 2 = 2 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33353} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 3 = 3 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33354} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 4 = 4 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33355} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 5 = 5 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33356} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 6 = 6 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33357} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 7 = 7 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33358} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 8 = 8 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).\\
\mathbf{33359} &:= \boldsymbol{K}(3!, 3) \times (3!! + 5) + 9 = 9 + (5 + 3!!) \times \boldsymbol{K}(3!, 3).
\end{aligned}$$

63360 $:= (K(6,3!)-3)\times 6!+0 = 0+(K(6,3!)-3)\times 6!.$
63361 $:= (K(6,3!)-3)\times 6!+1 = 1+(K(6,3!)-3)\times 6!.$
63362 $:= (K(6,3!)-3)\times 6!+2 = 2+(K(6,3!)-3)\times 6!.$
63363 $:= (K(6,3!)-3)\times 6!+3 = 3+(K(6,3!)-3)\times 6!.$
63364 $:= (K(6,3!)-3)\times 6!+4 = 4+(K(6,3!)-3)\times 6!.$
63365 $:= (K(6,3!)-3)\times 6!+5 = 5+(K(6,3!)-3)\times 6!.$
63366 $:= (K(6,3!)-3)\times 6!+6 = 6+(K(6,3!)-3)\times 6!.$
63367 $:= (K(6,3!)-3)\times 6!+7 = 7+(K(6,3!)-3)\times 6!.$
63368 $:= (K(6,3!)-3)\times 6!+8 = 8+(K(6,3!)-3)\times 6!.$
63369 $:= (K(6,3!)-3)\times 6!+9 = 9+(K(6,3!)-3)\times 6!.$

99360 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+0 = 0+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99361 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+1 = 1+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99362 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+2 = 2+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99363 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+3 = 3+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99364 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+4 = 4+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99365 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+5 = 5+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99366 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+6 = 6+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99367 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+7 = 7+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99368 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+8 = 8+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$
99369 $:= K((\sqrt{9})!,\sqrt{9})\times 3\times 6!+9 = 9+6!\times K(3!,\sqrt{9})\times\sqrt{9}.$

4.2 Symmetric: Single Side

33840 $:= 0+\sqrt{K(4!,8)}\times(3+3)!.$
33841 $:= 1+\sqrt{K(4!,8)}\times(3+3)!.$
33842 $:= 2+\sqrt{K(4!,8)}\times(3+3)!.$
33843 $:= 3+\sqrt{K(4!,8)}\times(3+3)!.$
33844 $:= 4+\sqrt{K(4!,8)}\times(3+3)!.$
33845 $:= 5+\sqrt{K(4!,8)}\times(3+3)!.$
33846 $:= 6+\sqrt{K(4!,8)}\times(3+3)!.$
33847 $:= 7+\sqrt{K(4!,8)}\times(3+3)!.$
33848 $:= 8+\sqrt{K(4!,8)}\times(3+3)!.$
33849 $:= 9+\sqrt{K(4!,8)}\times(3+3)!.$

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

$\mathbf{43920} := 0 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43921} := 1 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43922} := 2 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43923} := 3 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43924} := 4 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43925} := 5 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43926} := 6 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43927} := 7 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43928} := 8 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$
$\mathbf{43929} := 9 + (2 \times \sqrt{9})! \times \boldsymbol{K}(3!, 4).$

$\mathbf{81360} := \boldsymbol{K}(8, 1+3) \times 6! + 0.$
$\mathbf{81361} := \boldsymbol{K}(8, 1+3) \times 6! + 1.$
$\mathbf{81362} := \boldsymbol{K}(8, 1+3) \times 6! + 2.$
$\mathbf{81363} := \boldsymbol{K}(8, 1+3) \times 6! + 3.$
$\mathbf{81364} := \boldsymbol{K}(8, 1+3) \times 6! + 4.$
$\mathbf{81365} := \boldsymbol{K}(8, 1+3) \times 6! + 5.$
$\mathbf{81366} := \boldsymbol{K}(8, 1+3) \times 6! + 6.$
$\mathbf{81367} := \boldsymbol{K}(8, 1+3) \times 6! + 7.$
$\mathbf{81368} := \boldsymbol{K}(8, 1+3) \times 6! + 8.$
$\mathbf{81369} := \boldsymbol{K}(8, 1+3) \times 6! + 9.$

4.3 Both Ways: Digit's Order and Reverse

$$
\begin{aligned}
\mathbf{1199} &:= 11 \times \boldsymbol{K}(9, \sqrt{9}) &&= \boldsymbol{K}(9, \sqrt{9}) \times 11.\\
\mathbf{1464} &:= 1 \times 4! \times \boldsymbol{K}(6, 4) &&= 4! \times \boldsymbol{K}(6, 4) \times 1.\\
\mathbf{2688} &:= (2+6)!/\sqrt{\boldsymbol{K}(8, 8)} &&= 8!/\sqrt{\boldsymbol{K}(8, 6+2)}.\\
\mathbf{3786} &:= 3! \times \boldsymbol{K}(7+8, 6) &&= 6 \times \boldsymbol{K}(8+7, 3!).\\
\mathbf{4143} &:= \boldsymbol{K}(4!, 1+4) \times 3 &&= 3 \times \boldsymbol{K}(4!, 1+4).\\
\mathbf{4145} &:= \boldsymbol{K}(4!, -1+4) \times 5 &&= 5 \times \boldsymbol{K}(4!, -1+4).\\
\mathbf{4344} &:= \boldsymbol{K}(4+3!, 4) \times 4! &&= 4! \times \boldsymbol{K}(4+3!, 4).\\
\mathbf{4444} &:= \boldsymbol{K}(4!, 4) \times 4 + 4! &&= \boldsymbol{K}(4!, 4) \times 4 + 4!.\\
\mathbf{4799} &:= -4! + 7! - \boldsymbol{K}(9, (\sqrt{9})!) &&= -\boldsymbol{K}(9, (\sqrt{9})!) + 7! - 4!.
\end{aligned}
$$

$$
\begin{aligned}
\mathbf{4987} &:= -\sqrt{\boldsymbol{K}(4! + \sqrt{9}, 8)} + 7! &&= 7! + 8 - \boldsymbol{K}((\sqrt{9})!, 4).\\
\mathbf{9994} &:= -(\sqrt{9})! + \boldsymbol{K}(\sqrt{9}, \sqrt{9})^4 &&= (\sqrt{4} + \boldsymbol{K}(4!, (\sqrt{9})!)) \times (\sqrt{9})!.\\
\mathbf{12435} &:= (1+2) \times \boldsymbol{K}(4!, 3) \times 5 &&= 5 \times 3 \times \boldsymbol{K}(4!, 2+1).\\
\mathbf{13244} &:= -1 \times 3! + 2 \times \boldsymbol{K}(4!, 4!) &&= \boldsymbol{K}(4!, 4!) \times 2 - 3! \times 1.\\
\mathbf{13689} &:= \boldsymbol{K}((-1+3!)!/6, 8) \times 9 &&= 9 \times \sqrt{\boldsymbol{K}(8, 6)^{3-1}}.\\
\mathbf{14402} &:= \boldsymbol{K}(1+4!, 4!) \times 02 &&= 2 \times \boldsymbol{K}(0! + 4!, 4!) \times 1.\\
\mathbf{14949} &:= (\boldsymbol{K}(1 \times 4!, (\sqrt{9})!) + 4) \times 9 &&= 9 \times (\boldsymbol{K}(4!, (\sqrt{9})!) + 4 \times 1).\\
\mathbf{15599} &:= -1 + 5! \times (5! + \boldsymbol{K}(\sqrt{9}, \sqrt{9})) &&= (\boldsymbol{K}(\sqrt{9}, \sqrt{9}) + 5!) \times 5! - 1.\\
\mathbf{17753} &:= -1 + \boldsymbol{K}(7, 7) \times 5! - 3! &&= -3! + 5! \times \boldsymbol{K}(7, 7) - 1.
\end{aligned}
$$

$$\begin{aligned}
\mathbf{17755} &:= \boldsymbol{K}(1\times 7,7)\times 5!-5 &&= -5+5!\times \boldsymbol{K}(7,7)\times 1.\\
\mathbf{17761} &:= 1+\boldsymbol{K}(7,7)\times (6-1)! &&= (-1+6)!\times \boldsymbol{K}(7,7)+1.\\
\mathbf{19944} &:= (\boldsymbol{K}((1+\sqrt{9})!,\sqrt{9})+\sqrt{4})\times 4! &&= 4!\times(\boldsymbol{K}(4!,\sqrt{9})+\sqrt{9}-1).\\
\mathbf{23296} &:= 2^{3!+2}\times \boldsymbol{K}((\sqrt{9})!,6) &&= \boldsymbol{K}(6,(\sqrt{9})!)\times 2^{3!+2}.\\
\mathbf{24849} &:= \boldsymbol{K}(24,8+\sqrt{4})\times 9 &&= 9\times \boldsymbol{K}(4!,8+4-2).\\
\mathbf{26484} &:= 2\times 6\times(\boldsymbol{K}(4!,8)-\sqrt{4}) &&= (\boldsymbol{K}(4!,8)-\sqrt{4})\times 6\times 2.\\
\mathbf{28824} &:= \boldsymbol{K}(2\times 8,8+2)\times 4! &&= 4!\times \boldsymbol{K}(2\times 8,8+2).
\end{aligned}$$

$$\begin{aligned}
\mathbf{29438} &:= (-2+(\sqrt{9})!!)\times\sqrt{\boldsymbol{K}(4!-3,8)} &&= \boldsymbol{K}(8-3,4)\times((\sqrt{9})!!-2).\\
\mathbf{29976} &:= (2-\boldsymbol{K}((\sqrt{9})!,\sqrt{9})+7!)\times 6 &&= 6\times(7!-\boldsymbol{K}((\sqrt{9})!,\sqrt{9})+2).\\
\mathbf{30367} &:= \boldsymbol{K}(3!+0!,3!)+6\times 7! &&= 7!\times 6+\boldsymbol{K}(3!+0!,3!).\\
\mathbf{33067} &:= \boldsymbol{K}(3!,3)\times(-0!+6!)-7 &&= -7+(6!-0!)\times \boldsymbol{K}(3!,3).\\
\mathbf{33074} &:= \boldsymbol{K}(3!,3)\times(-0!+(7-4)!!) &&= ((-4+7)!!-0!)\times \boldsymbol{K}(3!,3).\\
\mathbf{33144} &:= 3!!\times \boldsymbol{K}(3!,-1+4)+4! &&= 4!\times \boldsymbol{K}(4!,-1+3+3).
\end{aligned}$$

$$\begin{aligned}
\mathbf{33163} &:= \boldsymbol{K}(3!,3)\times(1+6!)-3 &&= -3+(6!+1)\times \boldsymbol{K}(3!,3).\\
\mathbf{33164} &:= \boldsymbol{K}(3!,3)\times(1+6!)-\sqrt{4} &&= -\sqrt{4}+(6!+1)\times \boldsymbol{K}(3!,3).\\
\mathbf{33166} &:= \boldsymbol{K}(3!,3)\times \boldsymbol{K}(16,6) &&= ((\sqrt{6\times 6})!+1)\times \boldsymbol{K}(3!,3).\\
\mathbf{33169} &:= \boldsymbol{K}(3!,3)\times(1+6!)+\sqrt{9} &&= \sqrt{9}+(6!+1)\times \boldsymbol{K}(3!,3).\\
\mathbf{33212} &:= \boldsymbol{K}(3!,3)\times(2+(1+2)!!) &&= (2+(1+2)!!)\times \boldsymbol{K}(3!,3).\\
\mathbf{33304} &:= \boldsymbol{K}(3!,3)\times(3!!+04) &&= (4+(03)!!)\times \boldsymbol{K}(3!,3).\\
\mathbf{33336} &:= 3!^3+\boldsymbol{K}(3!,3)\times 6! &&= 6!\times \boldsymbol{K}(3!,3)+3!^3.
\end{aligned}$$

$$\begin{aligned}
\mathbf{33393} &:= (3!+3!!)\times \boldsymbol{K}(3!,\sqrt{9})-3 &&= (3!!+(\sqrt{9})!)\times \boldsymbol{K}(3!,3)-3.\\
\mathbf{33394} &:= (3!+3!!)\times \boldsymbol{K}(3!,\sqrt{9})-\sqrt{4} &&= -\sqrt{4}+((\sqrt{9})!+3!!)\times \boldsymbol{K}(3!,3).\\
\mathbf{33396} &:= \boldsymbol{K}(3!,3)\times(-3+\sqrt{9^6}) &&= \boldsymbol{K}(6,\sqrt{9})\times(3!+(3+3)!).\\
\mathbf{33399} &:= (3!+3!!)\times \boldsymbol{K}(3!,\sqrt{9})+\sqrt{9} &&= \sqrt{9}+((\sqrt{9})!+3!!)\times \boldsymbol{K}(3!,3).\\
\mathbf{33534} &:= \boldsymbol{K}(3!,3)\times(5+3!!)+4 &&= (4+3!!+5)\times \boldsymbol{K}(3!,3).\\
\mathbf{33932} &:= 3!!+\boldsymbol{K}(3!,\sqrt{9})\times(3!!+2) &&= (2+3!!)\times \boldsymbol{K}((\sqrt{9})!,3)+3!!.\\
\mathbf{34469} &:= 3!!\times(4!+4!)-\boldsymbol{K}(6,(\sqrt{9})!) &&= -\boldsymbol{K}((\sqrt{9})!,6)+(4!+4!)\times 3!!.
\end{aligned}$$

$$\begin{aligned}
\mathbf{34698} &:= (3!!-\boldsymbol{K}(4!,6))\times(\sqrt{9})!+8! &&= 8!-(\sqrt{9})!\times(-6!+\boldsymbol{K}(4!,3!)).\\
\mathbf{34794} &:= \boldsymbol{K}(3!\times 4,7)\times 9\times\sqrt{4} &&= (\boldsymbol{K}(4!,\sqrt{9})\times 7-4)\times 3!.\\
\mathbf{34959} &:= \boldsymbol{K}(3!+4,(\sqrt{9})!)\times(5!+9) &&= (9+5!)\times \boldsymbol{K}((\sqrt{9})!+4,3!).\\
\mathbf{35349} &:= (3+5)!-3\times \boldsymbol{K}(4!,(\sqrt{9})!) &&= -\sqrt{9}\times \boldsymbol{K}(4!,3!)+(5+3)!.\\
\mathbf{35677} &:= \boldsymbol{K}(\sqrt{3!!/5},6)+7!\times 7 &&= 7!\times 7+\boldsymbol{K}(\sqrt{6!/5},3!).\\
\mathbf{35955} &:= (3!!-5\times\sqrt{9})\times \boldsymbol{K}(5,5) &&= \boldsymbol{K}(5,5)\times(-\sqrt{9}\times 5+3!!).\\
\mathbf{36396} &:= (3!!-\boldsymbol{K}(6,3))\times 9\times 6 &&= 6\times 9\times(3!!-\boldsymbol{K}(6,3)).
\end{aligned}$$

$$\mathbf{36444} := 3! + 6 \times \boldsymbol{K}(4!, 4! - \sqrt{4}) = \boldsymbol{K}(4!, 4! - \sqrt{4}) \times 6 + 3!.$$
$$\mathbf{37393} := 3! + 7^3 \times \boldsymbol{K}(9, 3) = 3! + \boldsymbol{K}(9, 3) \times 7^3.$$
$$\mathbf{37943} := -3!! + (\sqrt{\boldsymbol{K}(7, \sqrt{9})})! - \boldsymbol{K}(4!, 3!) = -3!! - \boldsymbol{K}(4!, (\sqrt{9})!) + (\sqrt{\boldsymbol{K}(7, 3)})!.$$
$$\mathbf{37948} := (-3!! + \boldsymbol{K}(7, (\sqrt{9})!)) \times 4 + 8! = 8! - 4 \times ((\sqrt{9})!! - \boldsymbol{K}(7, 3!)).$$
$$\mathbf{38495} := -3!! + 8! - \boldsymbol{K}(4!, 9 - 5) = -\boldsymbol{K}((-5 + 9)!, 4) + 8! - 3!!.$$
$$\mathbf{38549} := 3! + 8! - 5! - \boldsymbol{K}(4!, (\sqrt{9})!) = -\boldsymbol{K}(-\sqrt{9} + 4!, 5) + 8! - 3!!.$$
$$\mathbf{38893} := -3!! + 8! + \sqrt{\boldsymbol{K}(8, (\sqrt{9})!)} - 3!! = -3!! - (\sqrt{9})!! + 8! + \sqrt{\boldsymbol{K}(8, 3!)}.$$

$$\mathbf{38933} := 3!! + 8! - \boldsymbol{K}(9 \times 3, 3!) = -\boldsymbol{K}(3^3, (\sqrt{9})!) + 8! + 3!!.$$
$$\mathbf{38939} := -3 + 8! - \boldsymbol{K}(\sqrt{9} \times 3!, 9) = -\boldsymbol{K}(\sqrt{9} \times 3!, 9) + 8! - 3.$$
$$\mathbf{38956} := -3!! + 8! + \boldsymbol{K}((\sqrt{9})!, 5) - 6! = \boldsymbol{K}(6, 5) - (\sqrt{9})!! + 8! - 3!!.$$
$$\mathbf{38969} := -3!! + 8! - \boldsymbol{K}(9 + 6, (\sqrt{9})!) = -\boldsymbol{K}(9 + 6, (\sqrt{9})!) + 8! - 3!!.$$
$$\mathbf{38995} := 3 - 8 + \boldsymbol{K}(9, 9) \times 5! = 5! \times \boldsymbol{K}(9, 9) - 8 + 3.$$
$$\mathbf{39383} := -\boldsymbol{K}(3 \times \sqrt{9}, 3!) + 8! - 3!! = -3!! + 8! - \boldsymbol{K}(3 \times \sqrt{9}, 3!).$$
$$\mathbf{39386} := 3 - \boldsymbol{K}(9, 3!) + 8! - 6! = -6! + 8! + 3 - \boldsymbol{K}(9, 3!).$$

$$\mathbf{39389} := -3!! - \boldsymbol{K}(9, 3!) + 8! + (\sqrt{9})! = (\sqrt{9})! + 8! - 3!! - \boldsymbol{K}(9, 3!).$$
$$\mathbf{39398} := -\boldsymbol{K}(3! \times \sqrt{9}, 3!) - \sqrt{9} + 8! = 8! - \sqrt{9} - \boldsymbol{K}(3! \times \sqrt{9}, 3!).$$
$$\mathbf{39558} := -3!! + 9 - \boldsymbol{K}(5, 5) + 8! = 8! - \boldsymbol{K}(5, 5) + 9 - 3!!.$$
$$\mathbf{39646} := \boldsymbol{K}(3!, \sqrt{9}) - 6! + (\sqrt{4} + 6)! = (\sqrt{64})! + \boldsymbol{K}(6, \sqrt{9}) - 3!!.$$
$$\mathbf{39683} := -\boldsymbol{K}(3! + 9, 6) + 8! - 3! = -3! + 8! - \boldsymbol{K}(6 + 9, 3!).$$
$$\mathbf{39691} := \boldsymbol{K}(3!, (\sqrt{9})!) - 6! + (9 - 1)! = (-1 + 9)! + \boldsymbol{K}(6, (\sqrt{9})!) - 3!!.$$
$$\mathbf{39698} := -\boldsymbol{K}(3! + 9, 6) + 9 + 8! = ((8! + 9) - \boldsymbol{K}((6 + 9), 3!)).$$

$$\mathbf{39699} := (\boldsymbol{K}(3!, (\sqrt{9})!) + 6! \times (\sqrt{9})!) \times 9 = 9 \times ((\sqrt{9})! \times 6! + \boldsymbol{K}((\sqrt{9})!, 3!)).$$
$$\mathbf{39745} := 3! \times \boldsymbol{K}((\sqrt{9 + 7})!, 4!) - 5 = -5 + \boldsymbol{K}(4!, (\sqrt{7 + 9})!) \times 3!.$$
$$\mathbf{39889} := \boldsymbol{K}(3 \times \sqrt{9}, 8) + 8! - (\sqrt{9})!! = \boldsymbol{K}(9, 8) + 8! - (9 - 3)!.$$
$$\mathbf{39898} := -3!! + 9 + 8! + \boldsymbol{K}(9, 8) = 8! + \boldsymbol{K}(9, 8) + 9 - 3!!.$$
$$\mathbf{39923} := -\boldsymbol{K}(3 + 9, (\sqrt{9})!) + (2^3)! = (3! + 2)! - \boldsymbol{K}(9 + \sqrt{9}, 3!).$$
$$\mathbf{39983} := -3! - \boldsymbol{K}(9, 9) + 8! - 3! = -3! + 8! - \boldsymbol{K}(9, 9) - 3!.$$
$$\mathbf{39986} := -3 - \boldsymbol{K}(9, 9) + 8! - 6 = -6 + 8! - \boldsymbol{K}(9, 9) - 3.$$

$$\mathbf{39989} := -3 - \boldsymbol{K}(9, 9) + 8! - \sqrt{9} = -9 + 8! - \boldsymbol{K}(9, 9) + 3.$$
$$\mathbf{39992} := -3 - \boldsymbol{K}(9, 9) + ((\sqrt{9})! + 2)! = (2^{\sqrt{9}})! - \boldsymbol{K}(9, 9) - 3.$$
$$\mathbf{39995} := -\boldsymbol{K}(3 \times \sqrt{9}, 9) + (\sqrt{9} + 5)! = (5 + \sqrt{9})! - \boldsymbol{K}(9, \sqrt{9} \times 3).$$
$$\mathbf{39998} := 3! - \sqrt{9} - \boldsymbol{K}(9, 9) + 8! = 8! - \boldsymbol{K}(9, 9) + 9/3.$$
$$\mathbf{41406} := \boldsymbol{K}(4! + 1, 4! - 0!) \times 6 = 6 \times \boldsymbol{K}(0! + 4!, -1 + 4!).$$
$$\mathbf{41425} := \boldsymbol{K}(4!, (-1 + 4)!) \times 25 = 5^2 \times \boldsymbol{K}(4!, (-1 + 4)!).$$
$$\mathbf{43445} := (\sqrt{4^3})! + \sqrt{\boldsymbol{K}(4, 4)^5} = 5^{\sqrt{\boldsymbol{K}(4,4)}} + (3! + \sqrt{4})!.$$

$$\begin{aligned}
\mathbf{43656} &:= 4\times(\boldsymbol{K}(3!,6)\times 5!-6) &&= (-6+5!\times \boldsymbol{K}(6,3!))\times 4.\\
\mathbf{43942} &:= 4!+3!!\times \boldsymbol{K}((\sqrt{9})!,4)-2 &&= -2+4!+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).\\
\mathbf{43944} &:= 4!\times(3!!+(\sqrt{9})!+\boldsymbol{K}(4!,4)) &&= (\boldsymbol{K}(4!,4)+(\sqrt{9})!+3!!)\times 4!.\\
\mathbf{44164} &:= (4+(4-1)!!)\times \boldsymbol{K}(6,4) &&= (4+6!)\times \boldsymbol{K}((-1+4)!,4).\\
\mathbf{44469} &:= \boldsymbol{K}(4!/4,4)\times(6!+9) &&= \sqrt{9^6}\times \boldsymbol{K}(4!/4,4).\\
\mathbf{46948} &:= \boldsymbol{K}(4!,(-6+9)!)\times 4+8! &&= 8!+\boldsymbol{K}(4!,(9-6)!)\times 4.\\
\mathbf{48841} &:= (-4+\boldsymbol{K}(8,8))^{\sqrt{4\times 1}} &&= (-1\times 4+\boldsymbol{K}(8,8))^{\sqrt{4}}.
\end{aligned}$$

$$\begin{aligned}
\mathbf{49344} &:= \boldsymbol{K}(\boldsymbol{K}(4,\sqrt{9}),3)\times 4!\times 4 &&= 4!\times(\boldsymbol{K}(\boldsymbol{K}(4,3),\sqrt{9}))\times 4.\\
\mathbf{54443} &:= 5+\boldsymbol{K}(4!+4,4!)\times 3! &&= 3!\times \boldsymbol{K}(4!+4,4!)+5.\\
\mathbf{59995} &:= \boldsymbol{K}(5\times\sqrt{9},9)+9^5 &&= \boldsymbol{K}(5\times\sqrt{9},9)+9^5.\\
\mathbf{62466} &:= (6!-2)\times(-4+\boldsymbol{K}(6,6)) &&= (\boldsymbol{K}(6,6)-4)\times(-2+6!).\\
\mathbf{63976} &:= (\boldsymbol{K}(6,3!)-\sqrt{9})\times(7+6!) &&= (6!+7)\times(-\sqrt{9}+\boldsymbol{K}(3!,6)).\\
\mathbf{63989} &:= -\boldsymbol{K}(6,3!)+(\sqrt{9})!!\times 89 &&= (\sqrt{9})!!\times 89-\boldsymbol{K}(3!,6).
\end{aligned}$$

$$\begin{aligned}
\mathbf{64436} &:= (6!+4)\times(-\sqrt{4}+\boldsymbol{K}(3!,6)) &&= (\boldsymbol{K}(6,3!)-\sqrt{4})\times(4+6!).\\
\mathbf{65065} &:= \boldsymbol{K}(6,5+0!)\times(6!-5) &&= (-5+6!)\times \boldsymbol{K}(0!+5,6).\\
\mathbf{65969} &:= (6!+5)\times \boldsymbol{K}((\sqrt{9})!,6)-(\sqrt{9})! &&= -(\sqrt{9})!+\boldsymbol{K}(6,(\sqrt{9})!)\times(5+6!).\\
\mathbf{66066} &:= (6+6!)\times \boldsymbol{K}(06,6) &&= (6+6!)\times \boldsymbol{K}(06,6).\\
\mathbf{66331} &:= 6!+\boldsymbol{K}(6,3!)\times(3!!+1) &&= (1+3!!)\times \boldsymbol{K}(3!,6)+6!.\\
\mathbf{66333} &:= \boldsymbol{K}(6,6)\times 3^{3!}-3! &&= \boldsymbol{K}(3!,3!)\times 3^6-6.\\
\mathbf{66695} &:= 6!+\boldsymbol{K}(6,6)\times((\sqrt{9})!!+5) &&= (5+(\sqrt{9})!!)\times \boldsymbol{K}(6,6)+6!.
\end{aligned}$$

$$\begin{aligned}
\mathbf{66968} &:= 6!+\boldsymbol{K}(6,(\sqrt{9})!)\times(6!+8) &&= (8+6!)\times \boldsymbol{K}((\sqrt{9})!,6)+6!.\\
\mathbf{66976} &:= \boldsymbol{K}(6,6)\times(9+7+6!) &&= (6!+7+9)\times \boldsymbol{K}(6,6).\\
\mathbf{69646} &:= (\boldsymbol{K}(6,(\sqrt{9})!)+6)\times(-\sqrt{4}+6!) &&= (6!-\sqrt{4})\times(\boldsymbol{K}(6,(\sqrt{9})!)+6).\\
\mathbf{78444} &:= (7+8!-\boldsymbol{K}(4!,4))\times\sqrt{4} &&= -\sqrt{4}\times((\boldsymbol{K}(4!,4)-8!)-7).\\
\mathbf{80788} &:= \boldsymbol{K}(8-0!,7)+8!+8! &&= 8!+8!+\boldsymbol{K}(7,-0!+8).\\
\mathbf{87744} &:= (8!+\boldsymbol{K}(7,7)\times 4!)\times\sqrt{4} &&= \sqrt{4}\times(4!\times \boldsymbol{K}(7,7)+8!).\\
\mathbf{88335} &:= -\boldsymbol{K}(8,8)+3!!\times(3+5!) &&= (5!+3)\times 3!!-\boldsymbol{K}(8,8).
\end{aligned}$$

$$\begin{aligned}
\mathbf{91313} &:= \boldsymbol{K}((\sqrt{9})!+1,3!)\times(-1+3!!) &&= (3!!-1)\times \boldsymbol{K}(3!+1,(\sqrt{9})!).\\
\mathbf{91549} &:= 9!/(-1+5)+\boldsymbol{K}(4!,\sqrt{9}) &&= 9!/4+\boldsymbol{K}((5-1)!,\sqrt{9}).\\
\mathbf{91694} &:= \boldsymbol{K}((\sqrt{9})!+1,6)\times((\sqrt{9})!!+\sqrt{4}) &&= (\sqrt{4}+(\sqrt{9})!!)\times \boldsymbol{K}(6+1,(\sqrt{9})!).\\
\mathbf{92744} &:= -(\sqrt{9})!+2\times 7\times \boldsymbol{K}(4!,4!) &&= \boldsymbol{K}(4!,4!)\times 7\times 2-(\sqrt{9})!.\\
\mathbf{93266} &:= -\boldsymbol{K}((\sqrt{9})!,3)+2\times 6^6 &&= 6^6\times 2-\boldsymbol{K}(3!,\sqrt{9}).\\
\mathbf{93332} &:= (\boldsymbol{K}(\sqrt{9},3)+3!^{3!})\times 2 &&= 2\times(3!^{3!}+\boldsymbol{K}(3,\sqrt{9})).
\end{aligned}$$

$\mathbf{93659} := -K((\sqrt{9})!,3!) + 6 \times 5^{(\sqrt{9})!} = (\sqrt{9})! \times 5^6 - K(3!,(\sqrt{9})!).$
$\mathbf{94449} := (9+4!+4!) \times K(4!,(\sqrt{9})!) = (9+4!+4!) \times K(4!,(\sqrt{9})!).$
$\mathbf{96733} := K((\sqrt{9})!,6) \times (7^3+3!!) = K(3!,3!) \times (\sqrt{7^6}+(\sqrt{9})!!).$
$\mathbf{97399} := 9 \times 7 + K(3!,\sqrt{9})^{\sqrt{9}} = K((\sqrt{9})!,\sqrt{9})^3 + 7 \times 9.$
$\mathbf{99333} := (-9+K((\sqrt{9})!,3) \times 3!!) \times 3 = (3!! \times K(3!,3)-9) \times \sqrt{9}.$
$\mathbf{99636} := K((\sqrt{9})!,\sqrt{9}) \times (6! \times 3+6) = K(6,3) \times 6! \times \sqrt{9} + (\sqrt{9})!.$

4.4 Digit's Order

$\mathbf{197} := K(-1+9,7).$
$\mathbf{364} := K(3!,6) \times 4.$
$\mathbf{637} := K(6,3!) \times 7.$
$\mathbf{829} := K((8/2)!,\sqrt{9}).$
$\mathbf{973} := K(9,7) + 3!!.$

$\mathbf{1083} := K(10,8) \times 3.$
$\mathbf{1197} := -1 + K(19,7).$
$\mathbf{1489} := K(1 \times 4!,8) - (\sqrt{9})!!.$
$\mathbf{1519} := K(-1+(5-1)!,(\sqrt{9})!).$
$\mathbf{1547} := K(\sqrt{1+5!},4) \times 7.$
$\mathbf{1549} := (1+5)! + K(4!,\sqrt{9}).$
$\mathbf{1663} := K((\sqrt{16})!,6) + 3!.$

$\mathbf{2178} := 2 \times K(17,8).$
$\mathbf{2209} := K((2+2)!,-0!+9).$
$\mathbf{2269} := K(2+26,(\sqrt{9})!).$
$\mathbf{2493} := 2 + K(4!,9) + 3!.$
$\mathbf{2647} := K(-2+6+4!,7).$
$\mathbf{2735} := K(2 \times 7,3!) \times 5.$

$\mathbf{2883} := K(2 \times 8,8) \times 3.$
$\mathbf{2888} := K(2+8,8) \times 8.$
$\mathbf{3640} := K(3!,6) \times 40.$
$\mathbf{4141} := K(4!,14+1).$
$\mathbf{4339} := K(4,3) + 3!! \times (\sqrt{9})!.$
$\mathbf{4417} := K(4!,4!-1-7).$

$\mathbf{4418} := \sqrt{4} \times K(4!,1 \times 8).$
$\mathbf{4423} := K(4!,4^2) + 3!.$
$\mathbf{4564} := K(4 \times 5,6) \times 4.$
$\mathbf{4577} := -K(\sqrt{4!+5!},7) + 7!.$
$\mathbf{4867} := -4 - K(8,6) + 7!.$
$\mathbf{4963} := K(4!,\sqrt{9} \times 6) - 3!.$

$\mathbf{4967} := K(4!,\sqrt{9}) \times 6 - 7.$
$\mathbf{4969} := K(4!,\sqrt{9}+6+9).$
$\mathbf{4974} := K(4!,\sqrt{9}) \times (7-4)!.$
$\mathbf{5087} := \sqrt{K((5-0!)!,8)} + 7!.$
$\mathbf{5437} := K(\sqrt{5!+4!},3!) + 7!.$
$\mathbf{5749} := -5! + 7! + K(4!,\sqrt{9}).$

$\mathbf{5887} := K(5!/8,8) \times 7.$
$\mathbf{6370} := K(6,3!) \times 70.$
$\mathbf{7357} := K(7 \times 3,5) \times 7.$
$\mathbf{8475} := K(8,4) \times 75.$
$\mathbf{9459} := K(-\sqrt{9}+4!,5) \times 9.$
$\mathbf{9936} := K((\sqrt{9})!,\sqrt{9}) \times \sqrt{3!^6}.$

$\mathbf{10269} := K(10 \times 2,6) \times 9.$
$\mathbf{10584} := K(\sqrt{1+(05)!},8) \times 4!.$
$\mathbf{10824} := K(10,8+2) \times 4!.$
$\mathbf{10830} := K(10,8) \times 30.$
$\mathbf{11544} := K(1+15,4) \times 4!.$

$\mathbf{11904} := \boldsymbol{K}(11,9) \times (04)!.$
$\mathbf{11935} := 11 \times \boldsymbol{K}(9,3!) \times 5.$
$\mathbf{11979} := \boldsymbol{K}(1+19,7) \times 9.$
$\mathbf{13448} := \boldsymbol{K}(-1+3!,4)^{\sqrt{4}} \times 8.$
$\mathbf{13584} := (1+3)! + 5! \times \boldsymbol{K}(8,4).$

$\mathbf{13944} := (1+3)!^{\sqrt{9}} + (\sqrt{\boldsymbol{K}(4,4)})!.$
$\mathbf{14273} := (1+4)!^2 - \boldsymbol{K}(7,3!).$
$\mathbf{14354} := -\boldsymbol{K}((-1+4)!,3) + 5!^{\sqrt{4}}.$
$\mathbf{14384} := \boldsymbol{K}(1+4!,3!) \times 8 - 4!.$
$\mathbf{14707} := \boldsymbol{K}(1+4!,7) \times 07.$

$\mathbf{14793} := (-1+4) \times (7! - \boldsymbol{K}(9,3)).$
$\mathbf{14903} := -1 + (\boldsymbol{K}(4!,9) - 0!) \times 3!.$
$\mathbf{14904} := (-1+\boldsymbol{K}(4!,9)) \times (0! + \sqrt{4})!.$
$\mathbf{14909} := -1 + \boldsymbol{K}(4!,9) \times (\sqrt{09})!.$
$\mathbf{14916} := (\boldsymbol{K}(1 \times 4!,9) + 1) \times 6.$
$\mathbf{14923} := 1 + (\boldsymbol{K}(4!,9) + 2) \times 3!.$
$\mathbf{14934} := \boldsymbol{K}(1 \times 4!,9) \times 3! + 4!.$

$\mathbf{14939} := -1 + (\boldsymbol{K}(4!,(\sqrt{9})!) + 3) \times 9.$
$\mathbf{14959} := (-1+\boldsymbol{K}(4!,(\sqrt{9})!) + 5) \times 9.$
$\mathbf{15144} := \boldsymbol{K}(15,(-1+4)!) \times 4!.$
$\mathbf{15347} := (-1+5)! \times 3!! - \boldsymbol{K}(4!,7).$
$\mathbf{15399} := \boldsymbol{K}(1 \times 5!/3!,9) \times 9.$
$\mathbf{15470} := \boldsymbol{K}(\sqrt{1+5!},4) \times 70.$

$\mathbf{15487} := (-1+5)! + \boldsymbol{K}(4!,8) \times 7.$
$\mathbf{15643} := -1 + 5^6 - \boldsymbol{K}(4,3).$
$\mathbf{15956} := \boldsymbol{K}(\sqrt{1+5!},(\sqrt{9})!) + 5^6.$
$\mathbf{16536} := (\sqrt{16})! \times (-\boldsymbol{K}(5,3) + 6!).$
$\mathbf{16563} := \boldsymbol{K}((\sqrt{16})!,5!/6) \times 3.$
$\mathbf{16697} := -1 + 66 \times \boldsymbol{K}(9,7).$

$\mathbf{16928} := \boldsymbol{K}(1 \times 6,\sqrt{9})^2 \times 8.$
$\mathbf{17343} := -1 + \boldsymbol{K}(7,3) + 4! \times 3!!.$
$\mathbf{17760} := \boldsymbol{K}(1 \times 7,7) \times (6-0!)!.$
$\mathbf{18234} := 18 \times \boldsymbol{K}(23,4).$
$\mathbf{18384} := \boldsymbol{K}(18,-3+8) \times 4!.$
$\mathbf{18984} := (-1+\boldsymbol{K}(8,(\sqrt{9})!)) \times \boldsymbol{K}(8,4).$

$\mathbf{19796} := (1+\sqrt{9}) \times (7! - \boldsymbol{K}((\sqrt{9})!,6)).$
$\mathbf{19855} := \boldsymbol{K}(1+9,8) \times 55.$
$\mathbf{19881} := \boldsymbol{K}((1+\sqrt{9})!,8) \times (8+1).$
$\mathbf{24298} := 2 + \boldsymbol{K}(4!,2+9) \times 8.$

$\mathbf{24334} := \boldsymbol{K}(2+4,3)^3/4.$
$\mathbf{24930} := (2+\boldsymbol{K}(4!,\sqrt{9})) \times 30.$
$\mathbf{25517} := \boldsymbol{K}(25,5) \times 17.$
$\mathbf{25984} := \boldsymbol{K}(2 \times 5,9) \times \sqrt{8^4}.$
$\mathbf{26508} := 2 \times 6 \times \boldsymbol{K}((5-0!)!,8).$
$\mathbf{26944} := 2^6 \times \boldsymbol{K}(-9+4!,4).$
$\mathbf{27350} := \boldsymbol{K}(2 \times 7,3!) \times 50.$

$\mathbf{27993} := ((-2+7)! + 9) \times \boldsymbol{K}(9,3!).$
$\mathbf{28355} := \boldsymbol{K}(28,3 \times 5) \times 5.$
$\mathbf{28830} := \boldsymbol{K}(2 \times 8,8) \times 30.$
$\mathbf{28880} := \boldsymbol{K}(2+8,8) \times 80.$
$\mathbf{28900} := (2 \times \boldsymbol{K}(8,\sqrt{9}))^{0!+0!}.$
$\mathbf{28902} := 2 + (\boldsymbol{K}(8,(\sqrt{9})!) + 0!)^2.$
$\mathbf{28924} := (2 \times \boldsymbol{K}(8,\sqrt{9}))^2 + 4!.$

$\mathbf{29424} := \boldsymbol{K}(2 \times 9,4) \times 2 \times 4!.$
$\mathbf{29544} := (2 \times \sqrt{9})! \times \boldsymbol{K}(5,4) + 4!.$
$\mathbf{29549} := 29 + \boldsymbol{K}(5,4) \times (\sqrt{9})!!.$
$\mathbf{29789} := -2 + \sqrt{\boldsymbol{K}(9+7,8)^{\sqrt{9}}}.$
$\mathbf{29826} := 2 \times 9 \times \boldsymbol{K}((8/2)!,6).$

$\mathbf{32885} := -3 + 2^{\sqrt{\boldsymbol{K}(8,8)}} + 5!.$
$\mathbf{33488} := (3+3)! + \sqrt{4^{\sqrt{\boldsymbol{K}(8,8)}}}.$
$\mathbf{33489} := (3 \times \boldsymbol{K}(3!,4))^{8-(\sqrt{9})!}.$
$\mathbf{33492} := 3 + (\boldsymbol{K}(3!,4) \times \sqrt{9})^2.$
$\mathbf{33845} := 3!! + \boldsymbol{K}(3 \times 8,4!) \times 5.$
$\mathbf{33949} := 3!! \times \boldsymbol{K}(3!,\sqrt{9}) + \boldsymbol{K}(4!,\sqrt{9}).$
$\mathbf{34349} := (3!! - \boldsymbol{K}(4,3)) \times 49.$

34499 $:= -\boldsymbol{K}(3!,4)+$
$+4! \times ((\sqrt{9})!! + (\sqrt{9})!!)$.
34525 $:= \boldsymbol{K}(3! \times 4,5) \times 25$.
34791 $:= 3 \times (\boldsymbol{K}(4!,7) \times (\sqrt{9})! - 1)$.
34792 $:= 3! \times \boldsymbol{K}(4!,7) \times \sqrt{9} - 2$.
34839 $:= (3! + \boldsymbol{K}(4!,8+3!)) \times 9$.
35245 $:= 3!! + 5^2 \times \boldsymbol{K}(4!,5)$.

35286 $:= 3! + \sqrt{\boldsymbol{K}(5^2,8)} \times 6!$.
35344 $:= (3! \times \boldsymbol{K}(5,3) + \sqrt{4})^{\sqrt{4}}$.
35377 $:= \boldsymbol{K}(3!,5) + (3+7!) \times 7$.
35943 $:= 3! + (\boldsymbol{K}(5,\sqrt{9}) + \sqrt{4})^3$.
36400 $:= \boldsymbol{K}(3!,6) \times 400$.
36576 $:= (3!! + 6!)/5 \times \boldsymbol{K}(7,6)$.
36594 $:= -3! + (6! - 5!) \times \boldsymbol{K}((\sqrt{9})!,4)$.

36757 $:= (\boldsymbol{K}(3!,6) + 7! + 5!) \times 7$.
36947 $:= 3! \times 6! \times 9 - \boldsymbol{K}(4!,7)$.
37968 $:= -3 \times (\boldsymbol{K}(7,\sqrt{9}) + 6!) + 8!$.
38295 $:= 3! + 8! - \boldsymbol{K}(29,5)$.
38459 $:= -3!! + 8! - \boldsymbol{K}(4 \times 5,(\sqrt{9})!)$.
38546 $:= 3 + 8! - 5! - \boldsymbol{K}(4!,6)$.
38658 $:= -\boldsymbol{K}(3 \times 8,6) - 5 + 8!$.

38812 $:= 3 + \boldsymbol{K}(8,8-1)^2$.
38945 $:= 3 + 8! + \sqrt{9} - \boldsymbol{K}(4!,5)$.
39468 $:= (3 - \boldsymbol{K}(9,4)) \times 6 + 8!$.
39473 $:= -3!! + ((\sqrt{9})! + \sqrt{4})! - \boldsymbol{K}(7,3!)$.
39524 $:= -3!! - \boldsymbol{K}((\sqrt{9})!,5) + (2 \times 4)!$.

39578 $:= -3! - \boldsymbol{K}(\sqrt{9} \times 5,7) + 8!$.
39588 $:= -3 - \boldsymbol{K}(9+5,8) + 8!$.
39648 $:= \boldsymbol{K}(3!,\sqrt{9}) - 6! + \sqrt{4} + 8!$.
39738 $:= -3! - 9 \times \boldsymbol{K}(7,3) + 8!$.
39750 $:= 3! \times \boldsymbol{K}((\sqrt{9+7})!,(5-0!)!)$.
39883 $:= -3! + \boldsymbol{K}(9,8) + 8! - 3!!$.
39886 $:= -3 + \boldsymbol{K}(9,8) + 8! - 6!$.

39958 $:= -3!/\sqrt{9} \times \boldsymbol{K}(9,5) + 8!$.
40343 $:= 4! - 0! + (\sqrt{\boldsymbol{K}(3+4,3)})!$.
40527 $:= \boldsymbol{K}(4! + 0!,5) \times 27$.
40817 $:= \boldsymbol{K}(4! + 0!,8) \times 17$.
41430 $:= \boldsymbol{K}(4!,1+4) \times 30$.
41449 $:= 4! + (1+4!) \times \boldsymbol{K}(4!,(\sqrt{9})!)$.
41450 $:= \boldsymbol{K}(4!,-1+4) \times 50$.

41583 $:= \boldsymbol{K}(4!-1,5) + 8! - 3$.
41584 $:= \boldsymbol{K}(4!-1,5) + 8! - \sqrt{4}$.
41585 $:= \boldsymbol{K}(4!,1) \times 5 + 8! - 5!$.
41589 $:= \boldsymbol{K}(4!-1,5) + 8! + \sqrt{9}$.
41698 $:= \boldsymbol{K}((4-1) \times 6,9) + 8!$.
41983 $:= \boldsymbol{K}(4!,(\sqrt{1 \times 9})!) + 8! + 3!$.
41984 $:= \boldsymbol{K}(4!,19) \times 8 + 4!$.
42334 $:= \boldsymbol{K}(4!-2,3) \times \boldsymbol{K}(3!,4)$.
42598 $:= \boldsymbol{K}(-\sqrt{4} + 25,9) + 8!$.
42778 $:= \boldsymbol{K}(4! + \sqrt{2+7},7) + 8!$.

42889 $:= \boldsymbol{K}(4!-2,8) + 8! + (\sqrt{9})!!$.
42922 $:= \boldsymbol{K}(4!+2,(\sqrt{9})!) \times 22$.
42944 $:= \boldsymbol{K}(4!+2,\sqrt{9}) \times 44$.
43497 $:= 4 + \boldsymbol{K}(3!,4) \times ((\sqrt{9})!! - 7)$.
43697 $:= -\boldsymbol{K}(4!,3!) - 6 + 9 \times 7!$.
43839 $:= ((4+3)! - \boldsymbol{K}(8,3!)) \times 9$.

43922 $:= \sqrt{4} + 3!! \times \boldsymbol{K}((\sqrt{9})!,2+2)$.
43924 $:= 4 + 3!! \times \boldsymbol{K}(\sqrt{9} \times 2,4)$.
43937 $:= \boldsymbol{K}(4!,3) \times (\boldsymbol{K}((\sqrt{9})!,3) + 7)$.
44168 $:= \boldsymbol{K}(4!,4+16) \times 8$.
44384 $:= \boldsymbol{K}(4! - \sqrt{4},3!) \times 8 \times 4$.
44437 $:= \boldsymbol{K}(\boldsymbol{K}(4,4),4) \times 37$.

44474 $:= \boldsymbol{K}(\boldsymbol{K}(4,4),\sqrt{4}) \times 74$.
44640 $:= (4!/4)! \times (\boldsymbol{K}(6,4) + 0!)$.
44664 $:= (\boldsymbol{K}(4!-4,6) + 6!) \times 4!$.
44738 $:= \sqrt{4} \times \boldsymbol{K}(4!,\sqrt{\boldsymbol{K}(7,3)}) + 8!$.
44739 $:= \boldsymbol{K}(4!,(-4+7)!) \times 3 \times 9$.
44858 $:= \sqrt{4} \times \boldsymbol{K}(4!,8) + 5! + 8!$.

44999 $:= -\boldsymbol{K}(4!, \sqrt{4 \times 9}) + (\sqrt{9})!^{(\sqrt{9})!}$.
45395 $:= -\boldsymbol{K}(4!, 5) + 3!^{(\sqrt{9})!} + 5!$.
45396 $:= (\boldsymbol{K}(4!, 5) \times 3! - (\sqrt{9})!!) \times 6$.
45640 $:= \boldsymbol{K}(4 \times 5, 6) \times 40$.
45655 $:= \boldsymbol{K}(\sqrt{4! + 5!}, 6) \times (5! - 5)$.
45844 $:= (\boldsymbol{K}(4!, 5) + 8!/4) \times 4$.

46933 $:= \boldsymbol{K}(4!, 6/(\sqrt{9})!) + 3!^{3!}$.
47255 $:= \boldsymbol{K}(4 \times 7, 25) \times 5$.
47649 $:= \boldsymbol{K}(4 \times 7, 6) \times (4! - \sqrt{9})$.
47664 $:= \boldsymbol{K}(4 + 7, 6) \times 6 \times 4!$.
47849 $:= 4 + 7! + 8! + \boldsymbol{K}(4!, 9)$.
48335 $:= \boldsymbol{K}(4!, 8 - 3) \times 35$.

48397 $:= \boldsymbol{K}(4!, 8 + 3) + 9 \times 7!$.
48457 $:= \sqrt{\boldsymbol{K}(4!, 8)} \times (4^5 + 7)$.
48598 $:= \boldsymbol{K}(4!, 8) \times (5 + 9 + 8)$.
48672 $:= 4 \times \boldsymbol{K}(8, 6) \times 72$.
48743 $:= (\sqrt{4} + 8) \times 7! - \boldsymbol{K}(4!, 3!)$.
48768 $:= 48 \times \boldsymbol{K}(7, 6) \times 8$.
48840 $:= (-4 + \boldsymbol{K}(8, 8))^{\sqrt{4}} - 0!$.

48956 $:= -4 + (-8 + \boldsymbol{K}((\sqrt{9})!, 5)) \times 6!$.
49495 $:= \boldsymbol{K}(4, \sqrt{9}) \times (\boldsymbol{K}(4!, 9) + 5!)$.
49662 $:= -4! + (\sqrt{9})! \times \boldsymbol{K}(6, 6)^2$.
49675 $:= (\boldsymbol{K}(4!, (\sqrt{9})!) \times 6 - 7) \times 5$.
49686 $:= 49 \times 6 \times \boldsymbol{K}(8, 6)$.
49690 $:= \boldsymbol{K}(4!, \sqrt{9} \times 6) \times (9 + 0!)$.
49692 $:= \boldsymbol{K}(4!, 9 + 6) \times (\sqrt{9})! \times 2$.

49695 $:= (\boldsymbol{K}(4!, (\sqrt{9})!) \times 6 - \sqrt{9}) \times 5$.
49699 $:= \boldsymbol{K}(4, \sqrt{9}) + 69 \times (\sqrt{9})!!$.
49969 $:= \boldsymbol{K}(4!, 9 + \sqrt{9}) + 6^{(\sqrt{9})!}$.
52535 $:= \boldsymbol{K}(5^2, 5) \times 35$.
52822 $:= \boldsymbol{K}(5^2, 8) \times 22$.
54695 $:= -\sqrt{5^4} + 6! \times \boldsymbol{K}((\sqrt{9})!, 5)$.
54889 $:= 5!^{\sqrt{4}} + 8! + \boldsymbol{K}(8, (\sqrt{9})!)$.

54936 $:= (5 + 4)! \times \boldsymbol{K}(9, 3)/6!$.
54961 $:= \boldsymbol{K}(\sqrt{5^4}, \sqrt{9}) \times 61$.
54999 $:= (-\boldsymbol{K}(5, 4) + (\sqrt{9})!!) \times 9 \times 9$.
55537 $:= \boldsymbol{K}(5 \times 5, 5) \times 37$.
56549 $:= 5 + \boldsymbol{K}(6, 5) \times (4! + (\sqrt{9})!!)$.
57962 $:= -5 + 7 \times \boldsymbol{K}((\sqrt{9})!, 6)^2$.
58539 $:= \boldsymbol{K}(\sqrt{\sqrt{5^8}}, 5) \times 39$.
58870 $:= \boldsymbol{K}(5!/8, 8) \times 70$.
59044 $:= -5 + 9^{\sqrt{\boldsymbol{K}(04,4)}}$.

59496 $:= (-5 + 9)! \times (\boldsymbol{K}(4!, 9) - 6)$.
59582 $:= \boldsymbol{K}(5, \sqrt{9})^{-5+8} \times 2$.
59648 $:= 5 + \sqrt{\sqrt{9^6}} \times \boldsymbol{K}(4!, 8)$.
62448 $:= 6 \times \boldsymbol{K}(2 + 4!, 4) \times 8$.
62496 $:= 6 \times 2 \times 4! \times \boldsymbol{K}(9, 6)$.
63700 $:= \boldsymbol{K}(6, 3!) \times 700$.

64795 $:= 6!^{\sqrt{4}}/\sqrt{\boldsymbol{K}(7, \sqrt{9})} - 5$.
65484 $:= -\boldsymbol{K}(6, 5) + 4^8 + 4!$.
66157 $:= \boldsymbol{K}(6, 6) \times ((1 + 5)! + 7)$.
66349 $:= 6! \times \boldsymbol{K}(6, 3!) + \boldsymbol{K}(4!, \sqrt{9})$.
66495 $:= (\boldsymbol{K}(6, 6) + \sqrt{4}) \times ((\sqrt{9})!! - 5)$.
66612 $:= \boldsymbol{K}(6, 6) \times (6! + 12)$.

68775 $:= (6! + \boldsymbol{K}(8, 7)) \times 75$.
69342 $:= \boldsymbol{K}(6, (\sqrt{9})!) \times (3!! + 42)$.
69433 $:= \boldsymbol{K}(6, (\sqrt{9})!) \times (43 + 3!!)$.
72589 $:= (7 + 2)!/5 + \sqrt{\boldsymbol{K}(8, (\sqrt{9})!)}$.

73152 $:= \boldsymbol{K}(7, 3!) \times (-1 + 5)!^2$.
73434 $:= -7 + \boldsymbol{K}(3! + 4, 3!)^{\sqrt{4}}$.
73445 $:= (\sqrt{\boldsymbol{K}(7, 3)})! + \boldsymbol{K}(4!, 4!) \times 5$.
73570 $:= \boldsymbol{K}(7 \times 3, 5) \times 70$.
73943 $:= 7! \times (3! + 9) - \boldsymbol{K}(4!, 3!)$.
73984 $:= \boldsymbol{K}(7, 3) \times \boldsymbol{K}(9, 8) \times 4$.

74895 $:= (7! - \sqrt{K(4!,8)}) \times \sqrt{9} \times 5.$
75366 $:= K(7,5) \times (-3 - 6 + 6!).$
75684 $:= K(7,5) \times (6! - 8 + \sqrt{4}).$
75992 $:= (K(7,5) + (\sqrt{9})!!) \times 92.$
75996 $:= -K(7,5) \times (\sqrt{9} - (\sqrt{9})!!) - 6.$
75999 $:= -K(7,5) \times (\sqrt{9} - (\sqrt{9})!!) - \sqrt{9}.$
76532 $:= K(7!/6!,5) \times (3!! + 2).$

79193 $:= -7 + (\sqrt{9})!! \times (1 + K(9,3)).$
79849 $:= (-7 + (\sqrt{9})!!) \times K(8,4) - (\sqrt{9})!!.$
79926 $:= (7! + K((\sqrt{9})!, (\sqrt{9})!)^2) \times 6.$
79928 $:= \sqrt{K(7,\sqrt{9})} - (\sqrt{9})!! + 2 \times 8!.$
79984 $:= K(7,\sqrt{9}) - (\sqrt{9})!! + 8! \times \sqrt{4}.$

80732 $:= (8! + K(-0! + 7,3)) \times 2.$
80768 $:= 8! + 0! + K(7,6) + 8!.$
80852 $:= (8! + K(-0! + 8,5)) \times 2.$
80894 $:= (8! + K(-0! + 8,(\sqrt{9})!)) \times \sqrt{4}.$
81699 $:= K(8,\sqrt{16}) \times (\sqrt{9} + (\sqrt{9})!!).$

83435 $:= -K(8,3) + (-4! + 3!!) \times 5!.$
83520 $:= (K(8,3!) + 5!)^2 - 0!.$
83521 $:= (K(8,3!) + 5!)^{K(2,1)}.$
84056 $:= 8! \times K(4! + 0!,5)/6!.$
84353 $:= K(8,4) + 3!! \times (5! - 3).$
84750 $:= K(8,4) \times 750.$

84966 $:= (K(8,4) + (\sqrt{9})!) \times (6! - 6).$
85539 $:= -K(8,5) + 5! \times (3!! - (\sqrt{9})!).$
86344 $:= -8!/6! + 3!! \times (\sqrt{K(4,4)})!.$
86413 $:= \sqrt{K(8,6)} + (4+1)! \times 3!!.$
86453 $:= -8 + K(6,4) + 5! \times 3!!.$
86465 $:= (\sqrt{K(8,6)} + 4! \times 6!) \times 5.$
86528 $:= 8! + K(6,5)^2 \times 8.$

86563 $:= K(8,6) + 5! \times 6! - 3!.$
86569 $:= K(8,6) + 5! \times (-6 + 9)!!.$
86951 $:= -K(8,6) + (\sqrt{9})!! \times (5! + 1).$
86989 $:= 8! + 6^{(\sqrt{9})!} + \sqrt{K(8,(\sqrt{9})!)}.$
90444 $:= (9! + 0! - K(4!,4))/4.$

93533 $:= -K(9,3!) + 5^{3!} \times 3!.$
93744 $:= 93 \times 7!/\sqrt{K(4,4)}.$
94545 $:= ((\sqrt{9})!! + K(4!,5)) \times 45.$
94569 $:= -(\sqrt{9})!! + K(4!,5) \times 69.$
94590 $:= K(-\sqrt{9} + 4!,5) \times 90.$

95749 $:= -(\sqrt{9})! - 5 + 7! \times K(4,\sqrt{9}).$
97920 $:= (\sqrt{9})!! \times K(7 + \sqrt{9}, 2 + 0!).$
99480 $:= (\sqrt{9})!!/(\sqrt{9})! \times K(4!,\sqrt{8+0!}).$
99991 $:= -9 + (K(\sqrt{9},\sqrt{9})^{(\sqrt{9})!-1}).$
99994 $:= -(\sqrt{9})! + K(\sqrt{9},\sqrt{9})^{9-4}.$

4.5 Reverse Order of Digits

127 $:= K(7,(2+1)!).$
168 $:= K(8,6) - 1.$
361 $:= K(16,3).$
364 $:= 4 \times K(6,3!).$
368 $:= 8 \times K(6,3).$
637 $:= 7 \times K(3!,6).$

0109 $:= K(9,0! + 1 + 0!).$
0137 $:= K(7,3!) + 10.$
0198 $:= K(8,(\sqrt{9})! + 1) + 0!.$
0357 $:= 7 \times K(5,3! - 0!).$
0396 $:= K(6 + (\sqrt{9})!, 3!) - 0!.$

0459 $:= 9 \times \boldsymbol{K}(5, 4+0!)$.
0482 $:= \boldsymbol{K}(2 \times 8, 4) + 0!$.
0547 $:= \boldsymbol{K}(7 \times \sqrt{4}, 5+0!)$.
0735 $:= \boldsymbol{K}(5 \times 3, 7) - 0!$.
0784 $:= 4 \times (\boldsymbol{K}(8,7) - 0!)$.
0829 $:= \boldsymbol{K}(((\sqrt{9})! - 2)!, \sqrt{8+0!})$.
0961 $:= \boldsymbol{K}(16, 9-0!)$.

0985 $:= 5 \times \boldsymbol{K}(8, (\sqrt{9})! + 0!)$.
0987 $:= 7 \times \boldsymbol{K}(8, (\sqrt{9})! - 0!)$.
1648 $:= -8 + \boldsymbol{K}(4!, 6) - 1$.
1649 $:= -9 + \boldsymbol{K}(4!, 6) + 1$.
1664 $:= \boldsymbol{K}(4!, 6) + 6 + 1$.
2449 $:= \boldsymbol{K}(9 \times \sqrt{4}, 4^2)$.
2532 $:= \boldsymbol{K}(23, 5) \times 2$.

2924 $:= \boldsymbol{K}(4! + 2, 9) - 2$.
3249 $:= 9 \times \boldsymbol{K}(4^2, 3)$.
3314 $:= \sqrt{4} \times \boldsymbol{K}((1+3)!, 3!)$.
3795 $:= 5 \times \boldsymbol{K}(9,7) \times 3$.
3984 $:= 4! \times \boldsymbol{K}(8 + \sqrt{9}, 3)$.

4566 $:= 6 \times (6! + \boldsymbol{K}(5,4))$.
4728 $:= \boldsymbol{K}(\sqrt{8^2}, 7) \times 4!$.
4927 $:= 7! - \boldsymbol{K}(2^{\sqrt{9}}, 4)$.
4979 $:= (\sqrt{9})!! \times 7 - \boldsymbol{K}((\sqrt{9})!, 4)$.
5544 $:= 4 \times (\boldsymbol{K}(4!, 5) + 5)$.

6427 $:= 7! + \boldsymbol{K}(-2 + 4!, 6)$.
6489 $:= 9 \times \boldsymbol{K}(8 \times \sqrt{4}, 6)$.
7372 $:= \boldsymbol{K}(27, 3 \times 7)$.
7849 $:= \boldsymbol{K}(\sqrt{9} + 4!, 8) + 7!$.
8433 $:= \boldsymbol{K}(3^3, 4!) + 8$.
8844 $:= 4 \times \boldsymbol{K}(4!, 8) + 8$.
9384 $:= 4! + \sqrt{\boldsymbol{K}(8, 3!)} \times (\sqrt{9})!!$.

9745 $:= \boldsymbol{K}(5 + 4!, (\sqrt{7+9})!)$.
9894 $:= (\boldsymbol{K}(4!, (\sqrt{9})!) - 8) \times (\sqrt{9})!$.
9919 $:= 91 \times \boldsymbol{K}(9, \sqrt{9})$.
9936 $:= \boldsymbol{K}(6,3) \times (\sqrt{9})!^{\sqrt{9}}$.
9941 $:= (-1 + \boldsymbol{K}(4!, (\sqrt{9})!)) \times (\sqrt{9})!$.
9942 $:= (\boldsymbol{K}(24, (\sqrt{9})!) \times (\sqrt{9})!)$.

00189 $:= \boldsymbol{K}(9,8) - 100$.
00218 $:= \boldsymbol{K}(8+1, (2+0!)!) + 0!$.
00219 $:= \boldsymbol{K}(9, (1+2)!) + 0! + 0!$.
00468 $:= \boldsymbol{K}(\sqrt{\boldsymbol{K}(8,6)}, (\sqrt{4}+0!)!) - 0!$.

00479 $:= \boldsymbol{K}(9+7, 4) - 0! - 0!$.
00684 $:= 4 \times (\boldsymbol{K}(8,6) + 0! + 0!)$.
00834 $:= \boldsymbol{K}(4!, 3) + (\sqrt{8+0!})! - 0!$.
00839 $:= \boldsymbol{K}(9 + 3!, 8) - 0! - 0!$.
00842 $:= \boldsymbol{K}(2^4, 8 - 0!) + 0!$.

00937 $:= \boldsymbol{K}(7 + 3!, (\sqrt{9})! \times (0! + 0!))$.
00938 $:= \boldsymbol{K}(\sqrt{\boldsymbol{K}(8, 3!)}, (\sqrt{9})!) \times (0! + 0!)$.
01051 $:= \boldsymbol{K}(15, 010)$.
01199 $:= \boldsymbol{K}(9, \sqrt{9}) \times (1 + 10)$.
01322 $:= 2 \times \boldsymbol{K}(2 \times 3!, 10)$.
01361 $:= \boldsymbol{K}(-1 + 6 \times 3, 10)$.

01369 $:= (-9 + \boldsymbol{K}(6,3))^{1+0!}$.
01378 $:= \boldsymbol{K}(8,7) \times (3! + 1) - 0!$.
01382 $:= \boldsymbol{K}((\sqrt{2 \times 8})!, 3! - 1) + 0!$.
01396 $:= -6! + \boldsymbol{K}((\sqrt{9})!, 3)^{1+0!}$.
01531 $:= \boldsymbol{K}(13 + 5, 10)$.
01648 $:= -8 + \boldsymbol{K}(4!, 6) \times 1 - 0!$.
01649 $:= -9 + \boldsymbol{K}(4!, 6) \times 1 + 0!$.

01653 $:= 3 \times \boldsymbol{K}(5 + 6, 10)$.
01655 $:= \boldsymbol{K}(5!/5, 6) - 1 - 0!$.
01659 $:= \boldsymbol{K}((9-5)!, 6) + 1 + 0!$.
01685 $:= -5 + \boldsymbol{K}(8,6) \times 10$.
01776 $:= 6 \times \boldsymbol{K}(7,7) \times (1 + 0!)$.
01902 $:= \boldsymbol{K}(20, 9+1) + 0!$.
01932 $:= \boldsymbol{K}((-2 + 3!)!, (\sqrt{9})! + 1) - 0!$.

01934 $:= \boldsymbol{K}(4!, -3+9+1) + 0!.$
02184 $:= 4! \times \boldsymbol{K}((\sqrt{8+1})!, (2+0!)!).$
02198 $:= (\sqrt{\boldsymbol{K}(8, (\sqrt{9})!)})^{1+2} + 0!.$
02343 $:= (\boldsymbol{K}(3!, 4) + 3!!) \times (2+0!).$
02356 $:= -\boldsymbol{K}(6, 5) \times (-32+0!).$
02366 $:= \boldsymbol{K}(6, 6) \times (3!+20).$
02394 $:= \boldsymbol{K}(4!, 9) - \boldsymbol{K}(3!, (2+0!)!).$

02437 $:= \boldsymbol{K}(\sqrt{\boldsymbol{K}(7\times 3, 4)}, (2+0!)!).$
02469 $:= \sqrt{9} \times (-6+\boldsymbol{K}(4!, 2+0!)).$
02484 $:= \boldsymbol{K}(4!, 8+\sqrt{4}/2) - 0!.$
02494 $:= \boldsymbol{K}(4!, 9) + 4\times 2 + 0!.$
02583 $:= (3!! + \boldsymbol{K}(8, 5)) \times (2+0!).$
02647 $:= \boldsymbol{K}(7\times 4, 6+(2\times 0)!).$
02664 $:= 4! \times (\boldsymbol{K}(6, 6) + 20).$
02761 $:= \boldsymbol{K}((\sqrt{16})!, 7+2+0!).$
02888 $:= 8 \times \boldsymbol{K}(8+8, 2+0!).$

02889 $:= \boldsymbol{K}(9, 8) \times (8+2) - 0!.$
02895 $:= 5 \times (\boldsymbol{K}(9, 8) \times 2 + 0!).$
02943 $:= (3+4!) \times \boldsymbol{K}(9, 2+0!).$
03044 $:= 4 \times (\boldsymbol{K}(4!-0!, 3) + 0!).$
03276 $:= 6 \times (\boldsymbol{K}(7\times 2, 3!) - 0!).$
03312 $:= 2 \times (\boldsymbol{K}((1+3)!, 3!) - 0!).$

03314 $:= \boldsymbol{K}(4!, (1+3)\times 3) + 0!.$
03344 $:= 4 \times (\boldsymbol{K}(4!, 3) + 3! + 0!).$
03365 $:= 5 \times (6! - \boldsymbol{K}(3!, 3) - 0!).$
03383 $:= -\boldsymbol{K}(3\times 8, 3!) + (3!+0!)!.$
03384 $:= 4! \times \boldsymbol{K}(8, 3! - (3\times 0)!).$
03584 $:= \boldsymbol{K}(4!, 8+5) - 3! + 0!.$
03599 $:= \boldsymbol{K}(\sqrt{9}, \sqrt{9}) \times 5! \times 3 - 0!.$

03654 $:= \boldsymbol{K}(4!+5, 6+3) - 0!.$
03745 $:= -5! + \boldsymbol{K}(4!, 7+3!+0!).$
03782 $:= \boldsymbol{K}(28, 7+3) + 0!.$
03786 $:= 6 \times (8!/\boldsymbol{K}(7, 3) + 0!).$
03863 $:= \boldsymbol{K}(\sqrt{3^6}, 8+3) + 0!.$
03864 $:= \boldsymbol{K}(4!, 6+8) - (3\times 0)!.$
03923 $:= 3!^2 \times \boldsymbol{K}(9, 3) - 0!.$

03944 $:= -\boldsymbol{K}(4!, 4) + 9 + (3!+0!)!.$
03948 $:= 84 \times (\boldsymbol{K}((\sqrt{9})!, 3) + 0!).$
04097 $:= \boldsymbol{K}(7, \sqrt{9})^{\sqrt{04}} + 0!.$
04233 $:= \boldsymbol{K}(3!, 3)^2 \times \sqrt{4} + 0!.$
04396 $:= 6! \times (\sqrt{9})! + \boldsymbol{K}(3!, 4+0!).$
04422 $:= 2 \times (2 \times \boldsymbol{K}(4!, 4) + 0!).$
04439 $:= (\boldsymbol{K}(9, 3!) - 4!) \times (4! - 0!).$
04559 $:= \boldsymbol{K}((\sqrt{9})!, 5) \times 5!/\sqrt{4} - 0!.$

04596 $:= \boldsymbol{K}(6\times\sqrt{9}, 5) \times (\sqrt{4}+0!)!.$
04694 $:= \boldsymbol{K}(4!, 9+\sqrt{64}) + 0!.$
04729 $:= \boldsymbol{K}((\sqrt{9})! + 2, 7) \times 4! + 0!.$
04791 $:= \boldsymbol{K}(19, 7) \times 4 - 0!.$
04859 $:= -\boldsymbol{K}(9, 5) + (8 - (4\times 0)!)!.$
04871 $:= 1 \times 7! - \boldsymbol{K}(8, (\sqrt{4}+0!)!).$
04899 $:= \boldsymbol{K}(9+9, 8) \times 4 - 0!.$

04931 $:= (1+3!)! - \boldsymbol{K}(9, \sqrt{4}+0!).$
04964 $:= \boldsymbol{K}(4!, 6\times\sqrt{9}) - 4 - 0!.$
04991 $:= \boldsymbol{K}(1\times 9, (\sqrt{9})!) \times (4! - 0!).$
04993 $:= -\boldsymbol{K}(3!, \sqrt{9}) + (9-\sqrt{4})! - 0!.$
05236 $:= (\boldsymbol{K}(6, 3) - 2) \times (5! - 0!).$
05244 $:= \boldsymbol{K}(4!, 4! - \sqrt{25}) - 0!.$

05314 $:= \boldsymbol{K}(4! - 1, -3 + (5-0!)!).$
05336 $:= \boldsymbol{K}(6, 3) \times (-3 + 5! - 0!).$
05369 $:= \boldsymbol{K}((\sqrt{9})!, 6) \times (\sqrt{3!! \times 5} - 0!).$
05403 $:= 3 \times \boldsymbol{K}(0! + 4!, 5 + 0!).$

05437 $:= 7! + \boldsymbol{K}(3\times 4, 5+0!).$
05467 $:= 7 \times (\boldsymbol{K}(6, 4) + (5+0!)!).$
05485 $:= 5 \times (-8 + \boldsymbol{K}(4!, 5-0!)).$
05524 $:= \boldsymbol{K}(4!, \sqrt{25}) \times (5-0!).$
05677 $:= 7! + 7 \times \boldsymbol{K}(6, 5+0!).$
05683 $:= 3!! \times 8 - \boldsymbol{K}(6, 5) - 0!.$

05749 $:= \sqrt{9} \times \boldsymbol{K}(4!,7) - 50.$
05796 $:= \boldsymbol{K}(6,\sqrt{9}) \times (7+5!-0!).$
05933 $:= \boldsymbol{K}(3!,3) \times (9+5!) - 0!.$
05945 $:= \boldsymbol{K}(5,4) \times \boldsymbol{K}(9,5-0!).$
05999 $:= \boldsymbol{K}(\sqrt{9},\sqrt{9}) \times (((\sqrt{9})!!-5!)-0!.$
06539 $:= \boldsymbol{K}(9,3) \times \sqrt{5\times 6!} - 0!.$

06541 $:= \boldsymbol{K}(1+4!,5) + (6+0!)!.$
06624 $:= \boldsymbol{K}(4!,2\times(6+6)) - 0!.$
06657 $:= 7 \times \boldsymbol{K}(5!/6,6-0!).$
06688 $:= 88 \times \boldsymbol{K}(6,6-0!).$
06695 $:= \boldsymbol{K}(5,\sqrt{9}) \times \sqrt{6^6} - 0!.$
06697 $:= \boldsymbol{K}((\sqrt{7+9})!,6) + (6+0!)!.$
06905 $:= 5 \times \boldsymbol{K}((0!+\sqrt{9})!,6-0!).$

06938 $:= 8!/3! + \boldsymbol{K}(9,6) + 0!.$
07199 $:= \boldsymbol{K}(\sqrt{9},\sqrt{9}) \times (-1+7)! - 0!.$
07344 $:= \boldsymbol{K}(4!,4!) + 3!! - (7\times 0)!.$
07346 $:= 6! + \boldsymbol{K}(4!,(-3+7)!) + 0!.$
07497 $:= 7! + \boldsymbol{K}(\sqrt{9}+4!,7) - 0!.$

07596 $:= 6 \times (\boldsymbol{K}(9,5) \times 7 - 0!).$
07734 $:= \boldsymbol{K}(4!,-3+7) \times 7 - 0!.$
07739 $:= \boldsymbol{K}(9,3) \times \sqrt{7!+(7\times 0)!}.$
07885 $:= 5 \times (8 \times \boldsymbol{K}(8,7) + 0!).$
07944 $:= \boldsymbol{K}(4!+4,\sqrt{9}) \times 7 - 0!.$
08322 $:= \boldsymbol{K}(22,3!) \times (\sqrt{8+0!})!.$
08404 $:= 4 \times \boldsymbol{K}(0!+4!,8-0!).$

08434 $:= \boldsymbol{K}(4!+3,4!) + 8 + 0!.$
08637 $:= \boldsymbol{K}(7,3!) \times 68 + 0!.$
08848 $:= 8 \times (\boldsymbol{K}(4!,\sqrt{8+8}) + 0!).$
09074 $:= \boldsymbol{K}(4\times 7,(0!+\sqrt{9})!) + 0!.$
09244 $:= 4 \times \boldsymbol{K}(4!-2,9+0!).$
09245 $:= 5 \times \boldsymbol{K}(4!-2,9-0!).$
09248 $:= 8 \times \boldsymbol{K}(4!-2,(\sqrt{9})!-0!).$

09384 $:= 4! \times \boldsymbol{K}(\sqrt{\boldsymbol{K}(8,3!)},(\sqrt{9})!-0!).$
09647 $:= 7 \times \boldsymbol{K}(4!-6,9) + 0!.$
09934 $:= \boldsymbol{K}(4!,3!) \times (\sqrt{9})! - 9 + 0!.$
09944 $:= \boldsymbol{K}(4!,4) \times 9 - (9\times 0)!.$
09955 $:= 55 \times \boldsymbol{K}(9,(\sqrt{9})!-0!).$
09972 $:= 2 \times 7! - \boldsymbol{K}(9,\sqrt{9}) + 0!.$

11044 $:= 4 \times \boldsymbol{K}(4!,-0!+11).$
11792 $:= \boldsymbol{K}(2\times 9,7) \times 11.$
11889 $:= 9 \times \boldsymbol{K}(8+8,11).$
12099 $:= (\boldsymbol{K}(9,\sqrt{9})+0!)^2 - 1.$
12144 $:= (\boldsymbol{K}(4,4)-1)!/21!.$
13248 $:= 8 \times (\boldsymbol{K}(4!,2\times 3) - 1).$

13489 $:= (\sqrt{9})!! + \boldsymbol{K}(8,4)^{3-1}.$
13499 $:= -\boldsymbol{K}(9,9) + 4!^3 \times 1.$
13794 $:= \boldsymbol{K}(4,\sqrt{9}) \times (7+3!!-1).$
13934 $:= 4!^3 + \boldsymbol{K}(9,3) + 1.$
14404 $:= \sqrt{4} \times (\boldsymbol{K}(0!+4!,4!) + 1).$
14408 $:= 8 \times \boldsymbol{K}(0!+4!,(4-1)!).$
14424 $:= 4! \times \boldsymbol{K}(2^4,4+1).$

14425 $:= 5!^2 + \boldsymbol{K}(4,4) \times 1.$
14568 $:= \boldsymbol{K}(8,6) + 5!^{\sqrt{4}} - 1.$
14639 $:= (\sqrt{9})!!/3 \times \boldsymbol{K}(6,4) - 1.$
14801 $:= \boldsymbol{K}(10,8) \times 41.$
14946 $:= 6 \times (\boldsymbol{K}(4!,9) + (4-1)!).$
15367 $:= \boldsymbol{K}(7,(6-3)!) \times (5!+1).$
15373 $:= 3! + \boldsymbol{K}(7,3!) \times (5!+1).$

16344 $:= \boldsymbol{K}(4,4)^3 + 6! - 1.$
16746 $:= -\boldsymbol{K}(6,4) + 7^{6-1}.$
16849 $:= (\sqrt{9})!^4 \times \sqrt{\boldsymbol{K}(8,6)+1}.$
17394 $:= \boldsymbol{K}(4!,\sqrt{9}\times 3) \times 7 - 1.$
17537 $:= (\boldsymbol{K}(7,3!) + 5!) \times 71.$

17836 $:= \boldsymbol{K}(6,3!) \times (\boldsymbol{K}(8,7) - 1).$
17954 $:= \boldsymbol{K}(4!,5) \times ((\sqrt{9})! + 7) + 1.$
18963 $:= \boldsymbol{K}(\sqrt{3^6},(\sqrt{9})!) \times (8+1).$
19327 $:= 7 \times \boldsymbol{K}((-2+3!)!,9+1).$
19456 $:= \boldsymbol{K}(6,5) \times \sqrt{4^{9-1}}.$

$\mathbf{19844} := (-4 + \boldsymbol{K}(4!, 8)) \times 9 - 1.$
$\mathbf{19882} := \boldsymbol{K}((\sqrt{2 \times 8})!, 8) \times 9 + 1.$
$\mathbf{19888} := 8 \times (\boldsymbol{K}((\sqrt{8 + 8})!, 9) + 1).$
$\mathbf{20449} := ((\boldsymbol{K}(9, 4) - \sqrt{4})^{02}).$
$\mathbf{23333} := (3!^{3!} + \boldsymbol{K}(3, 3))/2.$
$\mathbf{23424} := 4! \times \boldsymbol{K}(2 + 4!, \sqrt{3^2}).$
$\mathbf{23474} := 4 \times 7! + \boldsymbol{K}(4!, 3!) \times 2.$

$\mathbf{29477} := 7 \times (7! - \sqrt{\boldsymbol{K}(4!, \sqrt{9})^2}).$
$\mathbf{29645} := \boldsymbol{K}(5, 4) \times (6! + \sqrt{9}) + 2.$
$\mathbf{29646} := \boldsymbol{K}(6, 4) \times 6 \times 9^2.$
$\mathbf{29768} := 8 \times \boldsymbol{K}(6, \sqrt{7 + 9})^2.$
$\mathbf{29814} := \boldsymbol{K}(4!, 18) \times \sqrt{9} \times 2.$
$\mathbf{29844} := \boldsymbol{K}(4!, 4!/8) \times (\sqrt{9})!^2.$
$\mathbf{29934} := (\boldsymbol{K}(4!, 3!) + (\sqrt{9})!) \times 9 \times 2.$

$\mathbf{23595} := (-5 + (\sqrt{9})!!) \times (\boldsymbol{K}(5, 3) + 2).$
$\mathbf{23716} := (\boldsymbol{K}(6 + 1, 7) + 3!)^2.$
$\mathbf{24304} := \boldsymbol{K}(4! - 0!, 3!) \times 4^2.$
$\mathbf{24338} := \boldsymbol{K}(8, 3!) \times 3! \times 4! + 2.$
$\mathbf{24576} := 6 \times \boldsymbol{K}(7, \sqrt{5 + 4})^2.$

$\mathbf{32409} := 9 \times \boldsymbol{K}(0! + 4!, 2 \times 3!).$
$\mathbf{32936} := \boldsymbol{K}(6, 3) \times (-(\sqrt{9})! + 2 + 3!!).$
$\mathbf{33348} := 84 \times \boldsymbol{K}(3! + 3!, 3!).$
$\mathbf{33749} := (\sqrt{9})!! \times 47 - \boldsymbol{K}(3!, 3!).$
$\mathbf{33798} := (8 \times (\sqrt{9})!! - \boldsymbol{K}(7, 3!)) \times 3!.$

$\mathbf{24775} := 5 \times (7! - \sqrt{\boldsymbol{K}(7, 4)^2}).$
$\mathbf{24845} := 5 \times \boldsymbol{K}(4!, 8 \times \sqrt{4} + 2).$
$\mathbf{24846} := 6 \times \boldsymbol{K}(4!, \sqrt{\boldsymbol{K}(8, 4 \times 2)}).$
$\mathbf{24955} := (-5 + 5!) \times \boldsymbol{K}(9, 4 + 2).$
$\mathbf{25355} := 5 \times (\boldsymbol{K}(5, 3) + (5 + 2)!).$
$\mathbf{25357} := (7! + \boldsymbol{K}(5, 3)) \times 5 + 2.$

$\mathbf{33834} := \sqrt{\boldsymbol{K}(4 \times 3!, 8)} \times 3!! - 3!.$
$\mathbf{33837} := \sqrt{\boldsymbol{K}((7 - 3)!, 8)} \times 3!! - 3.$
$\mathbf{33978} := 8! - 7! - \boldsymbol{K}(9, 3!) \times 3!.$
$\mathbf{33994} := (\boldsymbol{K}(4, \sqrt{9}) + (\sqrt{9})!!) \times \boldsymbol{K}(3!, 3).$
$\mathbf{34538} := 8! - \boldsymbol{K}(3!, 5)^{\sqrt{4}} - 3!.$
$\mathbf{34656} := \boldsymbol{K}(6, 5)^{6-4} \times 3!.$

$\mathbf{25538} := 8! \times \boldsymbol{K}(3!, 5)/5! + 2.$
$\mathbf{25992} := 2 \times (\boldsymbol{K}(9, \sqrt{9}) + 5)^2.$
$\mathbf{26244} := ((\boldsymbol{K}(4, 4) + 2) \times 6)^2.$
$\mathbf{26448} := 8 \times (-4 + \boldsymbol{K}(4!, 6)) \times 2.$
$\mathbf{26496} := \boldsymbol{K}(6, \sqrt{9}) \times (4 \times 6)^2.$

$\mathbf{34776} := -6 \times (7 - 7 \times \boldsymbol{K}(4!, 3)).$
$\mathbf{34797} := \sqrt{7 \times 9 \times 7} \times \boldsymbol{K}(4!, 3!).$
$\mathbf{35346} := -6 \times \boldsymbol{K}(4!, 3) + (5 + 3)!.$
$\mathbf{35497} := 7 \times ((9 - \sqrt{4})! + \boldsymbol{K}(5, 3)).$
$\mathbf{35995} := -5 + \boldsymbol{K}(\sqrt{9}, \sqrt{9}) \times 5 \times 3!!.$
$\mathbf{36379} := 9!/(7 + 3) + \boldsymbol{K}(6, 3!).$

$\mathbf{26698} := (8!/\sqrt{9} - \boldsymbol{K}(6, 6)) \times 2.$
$\mathbf{26836} := -6! + (-3 + \boldsymbol{K}(8, 6))^2.$
$\mathbf{27346} := (6! \times \boldsymbol{K}(4, 3) - 7) \times 2.$
$\mathbf{27792} := \boldsymbol{K}(2 + 9, 7) \times 72.$
$\mathbf{27876} := 6 \times (7! - \boldsymbol{K}(8, 7) \times 2).$
$\mathbf{28439} := -\boldsymbol{K}(9, 3)^{\sqrt{4}} + (\sqrt{8^2})!.$
$\mathbf{29345} := 5 \times (\boldsymbol{K}(4!, 3) + (9 - 2)!).$

$\mathbf{36545} := 5 \times \boldsymbol{K}(4! + 5, 6 \times 3).$
$\mathbf{36778} := 8! - 77 \times \boldsymbol{K}(6, 3).$
$\mathbf{36938} := (83 + (\sqrt{9})!!) \times \boldsymbol{K}(6, 3).$
$\mathbf{36946} := \boldsymbol{K}(6 + 4, 9) \times \boldsymbol{K}(6, 3!).$
$\mathbf{37195} := -5^{(\sqrt{9})! - 1} + (\sqrt{\boldsymbol{K}(7, 3)})!.$
$\mathbf{37248} := 8! - 4! \times 2 \times \boldsymbol{K}(7, 3).$
$\mathbf{37338} := (\boldsymbol{K}(8, 3!) + 3!!) \times 7 \times 3!.$

37432 $:= -(2+3!!)\times 4+(\sqrt{\boldsymbol{K}(7,3)})!.$
37441 $:= \boldsymbol{K}(1+4!,4!)+7!\times 3!.$
37445 $:= 5\times \boldsymbol{K}(4!,4!)+7!-3!!.$
37824 $:= 4!^2\times \boldsymbol{K}(8,7)/3.$
37848 $:= 8\times(4!\times \boldsymbol{K}(8,7)+3).$
37989 $:= \sqrt{\sqrt{9^8}}\times \boldsymbol{K}((\sqrt{9})!+7,3!).$
38134 $:= \boldsymbol{K}(4!,3)\times \boldsymbol{K}((\sqrt{1+8})!,3).$

38496 $:= -\boldsymbol{K}(6,\sqrt{9})\times 4!+8!-3!!.$
38518 $:= 8!-1-\boldsymbol{K}(\sqrt{\sqrt{5^8}},3!).$
38519 $:= (9-1)!-\boldsymbol{K}(\sqrt{\sqrt{5^8}},3!).$
38532 $:= 2\times(-3!+5!)\times \boldsymbol{K}(8,3!).$
38552 $:= (2+5!)\times \boldsymbol{K}(5!/8,3).$
38647 $:= 7\times \boldsymbol{K}(4!,6+8+3!).$
38681 $:= -\boldsymbol{K}(18,6)+8!-3!!.$

38796 $:= -6\times \boldsymbol{K}(9,7)+8!-3!.$
38799 $:= -(\sqrt{9})!\times \boldsymbol{K}(9,7)+8!-3.$
38802 $:= -\boldsymbol{K}(20,8)+8!+3.$
38831 $:= -\boldsymbol{K}((1+3)!,8)+8!+3!!.$
38854 $:= -\boldsymbol{K}(4!,5)+8!-\boldsymbol{K}(8,3).$
38936 $:= -\boldsymbol{K}(6\times 3,9)+8!-3!.$
38948 $:= 8!-\boldsymbol{K}(\boldsymbol{K}(4,\sqrt{9}),8)-3.$

38954 $:= -\boldsymbol{K}(4!,5)+9+8!+3!.$
39235 $:= -5+3!!/2\times \boldsymbol{K}(9,3).$
39264 $:= 4!+6!/2\times \boldsymbol{K}(9,3).$
39288 $:= -8+8!-2^{\boldsymbol{K}(\sqrt{9},3)}.$
39384 $:= 4!\times \boldsymbol{K}(8+3!,(\sqrt{9})!)\times 3.$
39435 $:= (\boldsymbol{K}(5,3)+4!)\times(-\sqrt{9}+3!!).$
39448 $:= 8!-(4+4)\times \boldsymbol{K}(9,3).$

39455 $:= -\boldsymbol{K}(5\times 5,4!)+(\sqrt{9})!^{3!}.$
39478 $:= 8!-7-\boldsymbol{K}(4!,\sqrt{9})-3!.$
39484 $:= -4+8!-\boldsymbol{K}(4!,\sqrt{9})-3.$
39486 $:= -6!+8!-\boldsymbol{K}(4,\sqrt{9})\times 3!.$
39487 $:= -7+8!-\boldsymbol{K}(4!,\sqrt{9})+3.$
39488 $:= 8!-\boldsymbol{K}((8-4)!,\sqrt{9})-3.$
39491 $:= (-1+9)!-\boldsymbol{K}(4!,9/3).$
39494 $:= (4!/\sqrt{9})!-\boldsymbol{K}(4!,\sqrt{9})+3.$
39497 $:= (\sqrt{\boldsymbol{K}(7,\sqrt{9})})!-\boldsymbol{K}(4!,\sqrt{9})+3!.$
39709 $:= -(\sqrt{9})!!+(0!+7)!+\boldsymbol{K}(9,3).$
39788 $:= 8!+\boldsymbol{K}(8,7)-9^3.$
39798 $:= 8!+9\times(-\boldsymbol{K}(7,\sqrt{9})+3!).$
39816 $:= -6!-1+8!+\boldsymbol{K}(9,3!).$
39817 $:= -(7-1)!+8!+\boldsymbol{K}(9,3!).$

39908 $:= 8!-\boldsymbol{K}(0!+9,9)-3!.$
40259 $:= (\sqrt{9}+5)!-\boldsymbol{K}((2+0!)!,4).$
40337 $:= ((\sqrt{\boldsymbol{K}(7,3)})!-3!-0!+4!).$
40368 $:= 8!+\boldsymbol{K}(6,3)+\sqrt{04}.$
40381 $:= 1\times 8!+\boldsymbol{K}(3!,04).$
40859 $:= -\boldsymbol{K}(9,5)+8!+(0!+\sqrt{4})!!.$
40898 $:= 8!+\boldsymbol{K}(9,8)\times\sqrt{04}.$

40998 $:= 8!+(\sqrt{9})!\times \boldsymbol{K}(9-0!,4).$
42436 $:= \boldsymbol{K}(6,3)^{\sqrt{4}}+(2\times 4)!.$
43139 $:= -(\sqrt{9})!!+(3!!-1)\times \boldsymbol{K}(3!,4).$
43493 $:= (3!!-9+\sqrt{4})\times \boldsymbol{K}(3!,4).$
43493 $:= (3!!-9+\sqrt{4})\times \boldsymbol{K}(3!,4).$
43615 $:= (-5+1\times 6!)\times \boldsymbol{K}(3!,4).$

43659 $:= (-\boldsymbol{K}(9,5)+6!)\times 3^4.$
43858 $:= 8!+58\times \boldsymbol{K}(3!,4).$
43859 $:= (\sqrt{9})!!\times 5+8!-\boldsymbol{K}(3!,4).$
43913 $:= -3!-1+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$
43914 $:= -(4-1)!+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$
43915 $:= -5+1\times(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$

43932 $:= 2\times 3!+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$
43945 $:= \sqrt{5^4}+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$
43952 $:= 2^5+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$
43968 $:= 8\times 6+(\sqrt{9})!!\times \boldsymbol{K}(3!,4).$
43981 $:= (1^8+(\sqrt{9})!!)\times \boldsymbol{K}(3!,4).$
43998 $:= 8!+(\sqrt{9})!\times \boldsymbol{K}(\sqrt{9}\times 3!,4).$
44496 $:= 6!\times \boldsymbol{K}((\sqrt{9})!,4)+4!\times 4!.$
44616 $:= 6!\times(1+\boldsymbol{K}(6,4))-4!.$

44879 $:= 9 \times 7! - \boldsymbol{K}(8 \times \sqrt{4}, 4).$
45278 $:= 8! + 7! - 2 \times \boldsymbol{K}(5, 4).$
45319 $:= 9 \times (1 + 3!)! - \boldsymbol{K}(5, 4).$
45384 $:= \boldsymbol{K}(4 + 8 \times 3, 5) \times 4!.$
45729 $:= \sqrt{9^2} \times (7! + \boldsymbol{K}(5, 4)).$
45792 $:= 2 \times 9 \times \boldsymbol{K}(7, 5) \times 4!.$
46369 $:= -(\sqrt{9})!! + \boldsymbol{K}(6 + 3, 6)^{\sqrt{4}}.$
46379 $:= -\boldsymbol{K}(9, 7) + 3!^6 - 4!.$
46824 $:= \boldsymbol{K}(-\sqrt{4} + 28, 6) \times 4!.$

46879 $:= 9 \times (7! + \boldsymbol{K}(8, 6)) - \sqrt{4}.$
46945 $:= -5! - 4! + \boldsymbol{K}(9, 6)^{\sqrt{4}}.$
46969 $:= -(\sqrt{9})!!/6 + \boldsymbol{K}(9, 6)^{\sqrt{4}}.$
47299 $:= \boldsymbol{K}(9, (\sqrt{9})!)^2 + 7!/4!.$

47408 $:= 8! + \boldsymbol{K}(-0! + 4!, 7) \times 4.$
47656 $:= (-\boldsymbol{K}(6, 5) + 6!) \times 74.$
47994 $:= \boldsymbol{K}(4, \sqrt{9}) \times ((\sqrt{9})! + 7!/\sqrt{4}).$
49729 $:= (\boldsymbol{K}(9, (\sqrt{2+7})!) + (\sqrt{9})!)^{\sqrt{4}}.$
49848 $:= 8! + \boldsymbol{K}(4 + 8, (\sqrt{9})!) \times 4!.$

50407 $:= 7 \times \boldsymbol{K}(0! + 4!, (-0! + 5)!).$
52888 $:= 88 \times \boldsymbol{K}(8 \times 2, 5).$
53206 $:= (6! - 0!) \times (-2 + \boldsymbol{K}(3!, 5)).$
53765 $:= (5! + 6!) \times \boldsymbol{K}(7, 3) + 5.$
54036 $:= 6 \times 3! \times \boldsymbol{K}(0! + 4!, 5).$
54437 $:= 7 \times 3!^{\sqrt{\boldsymbol{K}(4,4)}} + 5.$
54467 $:= 7 \times (6^{\sqrt{\boldsymbol{K}(4,4)}} + 5).$

54475 $:= -5^7 + \boldsymbol{K}(4!, 4) \times 5!.$
54596 $:= 6! \times \boldsymbol{K}((\sqrt{9})!, 5) - 4 - 5!.$
54624 $:= 4! \times \boldsymbol{K}(26, \sqrt{4} + 5).$
54744 $:= \boldsymbol{K}(4! + \sqrt{4}, 7) \times 4! + 5!.$
55389 $:= (\sqrt{9} + 8)!/3!! - \boldsymbol{K}(5, 5).$
55399 $:= 9^{\sqrt{9}} \times \boldsymbol{K}(3!, 5) - 5.$
56133 $:= 3^{3!} \times (1 + \boldsymbol{K}(6, 5)).$

57995 $:= \boldsymbol{K}((-5 + 9)!, (\sqrt{9})!) \times 7 \times 5.$
59096 $:= \boldsymbol{K}(6, \sqrt{9}) + 0! + 9^5.$
59099 $:= 9!/(\sqrt{9})! - \boldsymbol{K}((0! + \sqrt{9})!, 5).$
59139 $:= \boldsymbol{K}((\sqrt{9})!, 3!) - 1 + 9^5.$
59197 $:= \boldsymbol{K}(7, (\sqrt{9})! + 1) + 9^5.$
59218 $:= \boldsymbol{K}(8, (1 + 2)!) + 9^5.$
59245 $:= \boldsymbol{K}(5, 4) \times (2 \times (\sqrt{9})!! + 5).$
59355 $:= \boldsymbol{K}(5, 5) \times 3! + 9^5.$

59515 $:= -5 + \boldsymbol{K}(\sqrt{1 + 5!}, 9) \times 5!.$
59785 $:= \boldsymbol{K}(5!/8, 7) + 9^5.$
59911 $:= \boldsymbol{K}(11, (\sqrt{9})!) \times \boldsymbol{K}(9, 5).$
59938 $:= \boldsymbol{K}(8, 3!) + (\sqrt{9})!! + 9^5.$
62424 $:= 4! \times \boldsymbol{K}(2 + 4!, 2 + 6).$

63384 $:= 4! + (\boldsymbol{K}(8, 3) + 3) \times 6!.$
63744 $:= 4! \times (\boldsymbol{K}(4!, 7) + 3 + 6!).$
63973 $:= \boldsymbol{K}(3! + 7, 9) \times \boldsymbol{K}(3!, 6).$
64729 $:= \boldsymbol{K}(\sqrt{9^2}, 7)^{\sqrt{4}} + 6!.$
64798 $:= \sqrt{\boldsymbol{K}(8, (\sqrt{9})!)} \times 7! - \sqrt{4} - 6!.$
64975 $:= (5! - 7) \times (-\boldsymbol{K}(9, 4) + 6!).$

65395 $:= -5 + \boldsymbol{K}(9, 3) \times (-5! + 6!).$
65664 $:= 4! \times 6 \times \boldsymbol{K}(6, 5) \times 6.$
65892 $:= 2 \times \boldsymbol{K}(9, 8) \times (5! - 6).$
66157 $:= (7 + (5 + 1)!) \times \boldsymbol{K}(6, 6).$
66248 $:= (8 + (4 + 2)!) \times \boldsymbol{K}(6, 6).$
66495 $:= (-5 + (\sqrt{9})!!) \times (\sqrt{4} + \boldsymbol{K}(6, 6)).$
74509 $:= 9!/05 + \boldsymbol{K}(4!, 7).$

74685 $:= 5!/8 \times (-\boldsymbol{K}(6, 4) + 7!).$
75882 $:= 2 \times (8! + \boldsymbol{K}(8, 5)) - 7!.$
76327 $:= \boldsymbol{K}(7, 2 + 3) \times 6! + 7.$
76475 $:= 5^7 - \boldsymbol{K}(4!, 6) + 7.$
77882 $:= 2 \times (8! - \boldsymbol{K}(8, 7) \times 7).$
78393 $:= 3!! \times \boldsymbol{K}(9, 3) - 87.$
79344 $:= (\boldsymbol{K}(4!, 4) - 3) \times 9!/7!.$

79734 $:= (K(4!,3) - 7) \times 97.$
80459 $:= -K(9,5) + \sqrt{4} \times (08)!.$
80472 $:= 2 \times (-K(7,4) + 0! + 8!).$
80767 $:= K(7,6) + (7+0!)! + 8!.$

82741 $:= K(1+4!,7) + 2 \times 8!.$
82843 $:= -3! + K(4!,8) + 2 \times 8!.$
82849 $:= K((\sqrt{9})! \times 4,8) + 2 \times 8!.$
83942 $:= 2 \times (K(4!,(\sqrt{9})!) - 3! + 8!).$
83954 $:= \sqrt{4} \times (K((-5+9)!,3!) + 8!).$
84289 $:= ((\sqrt{9})!! + 8!) \times 2 + K(4!,8).$
84362 $:= (2+6!) \times K(3!,4) + 8!.$

84667 $:= (7+6!) \times K(6,4) + 8!.$
85824 $:= 4!^2 \times (K(8,5) + 8).$
85959 $:= (\sqrt{9})!! \times 5! - K((\sqrt{9})! + 5,8).$
86365 $:= 5! \times 6! - \sqrt{K(3 \times 6,8)}.$
86435 $:= 5! \times 3!! + \sqrt{K(4! - 6,8)}.$
88384 $:= K(4!,8-3) \times 8 \times 8.$
90297 $:= K(7,(\sqrt{9})!) \times ((2+0!)!! - 9).$

91437 $:= K(7,3!) \times (4-1)!! - \sqrt{9}.$
93024 $:= K(4,2+0!)!/(3!+9)!.$
93267 $:= (K(7,6) + 2) \times (3!! + \sqrt{9}).$
93434 $:= \sqrt{4} \times (K(3!,4) + 3!^{(\sqrt{9})!}).$
93624 $:= 4! \times K(26,3+9).$
94506 $:= (-6 + (05)!) \times K(4!,\sqrt{9}).$
94857 $:= 7 \times (5! \times K(8,4) - 9).$

95496 $:= 69 \times (K(4!,5) + \sqrt{9}).$
95791 $:= 19 \times 7! + K(5,\sqrt{9}).$
97405 $:= ((\sqrt{9})!! + K(7,4)) \times (0! + 5!).$
97458 $:= (-K(8,5) + 4^7) \times (\sqrt{9})!.$
98259 $:= (K(9,5)^2 - 8) \times \sqrt{9}.$

98464 $:= (4+6!) \times K(\sqrt{4}+8,\sqrt{9}).$
99474 $:= (-\sqrt{4}+7)! \times K(4!,\sqrt{9}) - (\sqrt{9})!.$
99483 $:= (-3+8)! \times K(4!,\sqrt{9}) + \sqrt{9}.$
99489 $:= (-\sqrt{9}+8)! \times K(4!,\sqrt{9}) + 9.$
99534 $:= K(4!,3) \times 5! + (\sqrt{9})! \times 9.$

5 Combined Selfie Numbers

This section brings **selfie numbers** in such a way that they have equality sign with different functions. This we have considered two-by-two ways. Finally, results with all the three functions are also given. In some case, the results are in digit's order or reverse together.

5.1 Coefficients Binomials and S-gonal

Below are few selfie numbers connecting two formulas: **binomial coefficients** and **s-gonal numbers**. In some cases the ordered in not same, it is either in digit's order or reverse.

0699 $:= -C((\sqrt{9})!,\sqrt{9}) + 6! - 0! = (-P((\sqrt{9})!,\sqrt{9}) + 6!) \times 0!.$

00493 $:= C(3+9,4) - 0! - 0! = 3! \times (P(9,4) + 0!) + 0!.$
02408 $:= 8 \times (C(0!+4!,2) + 0!) = 8 \times (0! + P(4!,2+0!)).$
02964 $:= 4 \times 6! + C(9,2+0!) = 4 \times (6! + P((\sqrt{9})!,2+0!)).$
04987 $:= 7! - C(8,\sqrt{9}) + 4 - 0! = 7! - 8 - P(9,\sqrt{4}+0!).$

$$\mathbf{11344} := \boldsymbol{C}(4!,4) + 3!! - 1 - 1 = \boldsymbol{P}(4,4) \times (3!! - 11).$$
$$\mathbf{13448} := 8 + (4+4)!/\boldsymbol{C}(3,1) = (8! + 4!)/\sqrt{\boldsymbol{P}(4,3) - 1}.$$
$$\mathbf{13464} := 4! + (\sqrt{64})!/\boldsymbol{C}(3,1) = \boldsymbol{P}(13+4,6) \times 4!.$$
$$\mathbf{13488} := 8 \times (8!/4! + \boldsymbol{C}(3,1)!) = (1 \times 3! + \boldsymbol{P}(4!,8)) \times 8.$$
$$\mathbf{14352} := (-2 - 5! + 3!!) \times \boldsymbol{C}(4,1)! = \boldsymbol{P}(-1 + 4!,3) \times 52.$$
$$\mathbf{14950} := \boldsymbol{C}(-1 + 4! + \sqrt{9}, 5 - 0!) = (-1 + \boldsymbol{P}(4!,\sqrt{9})) \times 50.$$
$$\mathbf{16345} := \boldsymbol{C}(5,4)^{3!} + \boldsymbol{C}(6,1)! = \boldsymbol{P}(5,4)^3 + 6! \times 1.$$

$$\mathbf{34968} := -3 \times \boldsymbol{C}(4!,\sqrt{9}) + 6! + 8! = 8! - 6! \times 9 + \boldsymbol{P}(4!,3!).$$
$$\mathbf{35937} := (\boldsymbol{C}(7,3) - \sqrt{9-5})^3 = (7 + \boldsymbol{P}(3!,\sqrt{9}) + 5)^3.$$
$$\mathbf{36431} := 3 \times 6 \times \boldsymbol{C}(4!,3) - 1 = -1 + 3 \times 4!!/\boldsymbol{P}(6,3)!.$$
$$\mathbf{36432} := (3+6) \times \boldsymbol{C}(4!,3) \times 2 = 23 \times 4! \times \boldsymbol{P}(6,3!).$$
$$\mathbf{36434} := 3 \times 6 \times \boldsymbol{C}(4!,3) + \sqrt{4} = \sqrt{4} + 3 \times 4!!/\boldsymbol{P}(6,3)!.$$

$$\mathbf{38472} := (2 \times 7)^4 + \boldsymbol{C}(8,3) = -3!! + 8! - \boldsymbol{P}(4!,(\sqrt{7+2})!).$$
$$\mathbf{38888} := 8 + 8! - 8!/\boldsymbol{C}(8,3!) = 8! - 8 \times (\boldsymbol{P}(8,8) + 3).$$
$$\mathbf{39435} := \boldsymbol{C}(5 + 3!,\sqrt{4}) \times (-\sqrt{9} + 3!!) = (3!! - \sqrt{9}) \times (4 + \boldsymbol{P}(3!,5)).$$
$$\mathbf{39468} := -3! - \boldsymbol{C}(9,4) - 6! + 8! = -\boldsymbol{P}(3!,(\sqrt{9})!) \times \sqrt{4} - 6! + 8!.$$
$$\mathbf{39648} := 8! - (\sqrt{4} + 6) \times \boldsymbol{C}(9,3) = 8! - \boldsymbol{P}(\sqrt{4} \times 6, 9 + 3).$$
$$\mathbf{39738} := 8! + 3! - 7 \times \boldsymbol{C}(9,3) = 8! - 3! \times \boldsymbol{P}(7,(\sqrt{9})!) - 3!.$$
$$\mathbf{39784} := 4! + 8! - \boldsymbol{C}(7+9,3) = -\boldsymbol{P}(3! + 9,7) + 8! + 4.$$

$$\mathbf{39948} := 8! - 4 \times (9 + \boldsymbol{C}(9,3)) = 8! - \boldsymbol{P}(4! + \sqrt{9},\sqrt{9}) + 3!.$$
$$\mathbf{39978} := 8! - 7^{\sqrt{9}} + \boldsymbol{C}(\sqrt{9},3) = -\boldsymbol{P}(3 + \sqrt{9 \times 9},7) + 8!.$$
$$\mathbf{40335} := (5+3)! + \boldsymbol{C}(3!,\sqrt{04}) = \boldsymbol{P}(4 + 0!,3) + (3+5)!.$$
$$\mathbf{40345} := (\boldsymbol{C}(5,4) + 3)! + 0! + 4! = \boldsymbol{P}(5,4) + (3! + \sqrt{04})!.$$
$$\mathbf{40378} := 8! + \boldsymbol{C}(7,3) - 0! + 4! = 8! + (\boldsymbol{P}(7,3) + 0!) \times \sqrt{4}.$$

$$\mathbf{40698} := 8! + \boldsymbol{C}\left(\sqrt{\sqrt{9^6}} + 0!, \sqrt{4}\right) = 8! + \boldsymbol{P}(9,6 + 0!) \times \sqrt{4}.$$
$$\mathbf{47496} := 6^{(\sqrt{9})!} + 4! \times \boldsymbol{C}(7,4) = 4! \times (-7 + \boldsymbol{P}(4!,9)) + 6!.$$
$$\mathbf{49335} := \boldsymbol{C}(4! + \sqrt{9},3!)/\boldsymbol{C}(3!,5) = (4! + \boldsymbol{P}(9,3)) \times (3!! - 5).$$
$$\mathbf{54264} := \boldsymbol{C}(4! - 6/2,(\sqrt{4+5})!) = \boldsymbol{P}(4!,6) \times 2 \times 4! + 5!.$$
$$\mathbf{59054} := 5 + 9^{\boldsymbol{C}(05,4)} = 5 + 9^{\sqrt{\boldsymbol{P}(05,4)}}.$$

$$\mathbf{74431} : (1 + 3!) \times (\boldsymbol{C}(4!,4) + 7) = 7^{\sqrt{\boldsymbol{P}(4,4)}} \times 31.$$
$$\mathbf{83544} := \boldsymbol{C}(4!,4! - 5) + 3!! + 8! = \sqrt{\boldsymbol{P}(8,3)} \times (5! - \sqrt{4})^{\sqrt{4}}.$$
$$\mathbf{87355} := (\boldsymbol{C}(8,7) + 3!!) \times 5! - 5 = 8 \times \boldsymbol{P}(7,3!) \times 5! - 5.$$
$$\mathbf{98464} := \boldsymbol{C}(9 + 8,\sqrt{4}) \times (6! + 4) = (4 + 6!) \times \boldsymbol{P}(4! - 8,\sqrt{9}).$$

5.2 Coefficients Binomials and Centered Polygonal Numbers

Below are few selfie numbers connecting two formulas: **binomial coefficients** and **centered polygonal numbers**. In some cases the ordered in not same, it is either in digit's order or reverse.

$$\mathbf{1464} := \sqrt{4} \times 6! + \boldsymbol{C}(4,1)! = 4! \times \boldsymbol{K}(6,4) \times 1.$$
$$\mathbf{2688} := \sqrt{8! \times 8!}/\boldsymbol{C}(6,2) \quad = 8!/\sqrt{\boldsymbol{K}(8,6+2)}.$$

$$\mathbf{00189} := 9 \times \boldsymbol{C}(8-1,0!+0!) \qquad = \boldsymbol{K}(9,8) - 100.$$
$$\mathbf{01934} := \boldsymbol{C}(4!,3) - 9 \times 10 \qquad = \boldsymbol{K}(4!,-3+9+1) + 0!.$$
$$\mathbf{03599} := -\boldsymbol{C}(9,9) + 5! \times 30 \qquad = \boldsymbol{K}(\sqrt{9},\sqrt{9}) \times 5! \times 3 - 0!.$$
$$\mathbf{07944} := 4! \times (\boldsymbol{C}((\sqrt{4}+9),7) + 0!) = \boldsymbol{K}(4!+4,\sqrt{9}) \times 7 - 0!.$$

$$\mathbf{11544} := 4! \times (4 \times 5! + \boldsymbol{C}(1,1)) = \boldsymbol{K}(1+15,4) \times 4!.$$
$$\mathbf{12144} := \boldsymbol{C}(4!,4-1) \times (2+1)! = (\boldsymbol{K}(4,4)-1)!/21!.$$
$$\mathbf{13248} := 8 \times \boldsymbol{C}(4!,2) \times \boldsymbol{C}(3,1)! = 8 \times (\boldsymbol{K}(4!,2 \times 3) - 1).$$
$$\mathbf{13448} := 8 + (4+4)!/\boldsymbol{C}(3,1) \quad = \boldsymbol{K}(-1+3!,4)^{\sqrt{4}} \times 8.$$
$$\mathbf{13689} := 9 + (8!+6!)/\boldsymbol{C}(3,1) \quad = 9 \times \sqrt{\boldsymbol{K}(8,6)^{3-1}}.$$
$$\mathbf{14404} := 4 + (0!+4)!^{\sqrt{\boldsymbol{C}(4,1)}} \quad = \sqrt{4} \times (\boldsymbol{K}(0!+4!,4!) + 1).$$

$$\mathbf{14408} := 8 + (0!+4)!^{\sqrt{\boldsymbol{C}(4,1)}} \qquad = 8 \times \boldsymbol{K}(0!+4!,(4-1)!).$$
$$\mathbf{18234} := (\boldsymbol{C}(4!,3)+2) \times (8+1) \qquad = 18 \times \boldsymbol{K}(23,4).$$
$$\mathbf{35943} := \boldsymbol{C}(3!,5) + (9+4!)^3 \qquad = 3! + (\boldsymbol{K}(5,\sqrt{9}) + \sqrt{4})^3.$$
$$\mathbf{38936} := 6! \times 3! \times 9 + \boldsymbol{C}(8,3) \qquad = -\boldsymbol{K}(6 \times 3,9) + 8! - 3!.$$
$$\mathbf{38948} := 8! - 49 \times \boldsymbol{C}(8,3!) \qquad = 8! - \boldsymbol{K}(\boldsymbol{K}(4,\sqrt{9}),8) - 3.$$
$$\mathbf{39386} := \boldsymbol{C}(3!,\sqrt{9}) + 3^8 \times 6 \qquad = 3 - \boldsymbol{K}(9,3!) + 8! - 6!.$$
$$\mathbf{39435} := \boldsymbol{C}(5+3!,\sqrt{4}) \times (-\sqrt{9}+3!!) = (\boldsymbol{K}(5,3)+4!) \times (-\sqrt{9}+3!!).$$

$$\mathbf{39468} := -3! - \boldsymbol{C}(9,4) - 6! + 8! \qquad = (3 - \boldsymbol{K}(9,4)) \times 6 + 8!.$$
$$\mathbf{39648} := 8! - (\sqrt{4}+6) \times \boldsymbol{C}(9,3) \qquad = \boldsymbol{K}(3!,\sqrt{9}) - 6! + \sqrt{4} + 8!.$$
$$\mathbf{39738} := 8! + 3! - 7 \times \boldsymbol{C}(9,3) \qquad = -3! - 9 \times \boldsymbol{K}(7,3) + 8!.$$
$$\mathbf{40343} := 4! - 0! + (3! + \sqrt{\boldsymbol{C}(4,3)}))! = 4! - 0! + (\sqrt{\boldsymbol{K}(3+4,3)})!.$$
$$\mathbf{43839} := \boldsymbol{C}(\sqrt{9} \times 3!,8) + 3^4 \qquad = ((4+3)! - \boldsymbol{K}(8,3!)) \times 9.$$

$$\mathbf{43944} := \boldsymbol{C}(4!,-4+9) + 3!! \times \sqrt{4} = (\boldsymbol{K}(4!,4) + (\sqrt{9})! + 3!!) \times 4!.$$
$$\mathbf{45384} := \boldsymbol{C}(4!,8-3) + 5! \times 4! \qquad = \boldsymbol{K}(4+8 \times 3,5) \times 4!.$$
$$\mathbf{62496} := (6!+24) \times \boldsymbol{C}(9,6) \qquad = 6 \times 2 \times 4! \times \boldsymbol{K}(9,6).$$
$$\mathbf{63744} := (\boldsymbol{C}(4!,4) - \sqrt{7-3}) \times 6 \quad = 4! \times (\boldsymbol{K}(4!,7) + 3 + 6!).$$
$$\mathbf{76327} := 7 + 6! + \boldsymbol{C}(3!,2) \times 7! \qquad = \boldsymbol{K}(7,2+3) \times 6! + 7.$$

$$\mathbf{90444} := 9!/04 - \boldsymbol{C}(4!,\sqrt{4}) = (9!+0!-\boldsymbol{K}(4!,4))/4.$$
$$\mathbf{93332} := \boldsymbol{C}((\sqrt{9})!,3) + 3!^{3!}\times 2 = (\boldsymbol{K}(\sqrt{9},3)+3!^{3!})\times 2.$$
$$\mathbf{93332} := 2\times 3!^{3!} + \boldsymbol{C}(3!,\sqrt{9}) = 2\times(3!^{3!}+\boldsymbol{K}(3,\sqrt{9})).$$
$$\mathbf{98464} := \boldsymbol{C}(9+8,\sqrt{4})\times(6!+4) = (4+6!)\times\boldsymbol{K}(\sqrt{4}+8,\sqrt{9}).$$

5.3 S-gonal and Centered Polygonal Numbers

Below are few selfie numbers connecting two formulas: **s-gonal** and **centered polygonal numbers**. In some cases the ordered in not same, it is either in digit's order or reverse.

$$\mathbf{0735} := \boldsymbol{P}(5,3) + (7-0!)! = \boldsymbol{K}(5\times 3,7) - 0!.$$
$$\mathbf{5544} := \boldsymbol{P}(4!,-\sqrt{4}+5!/5) = 4\times(\boldsymbol{K}(4!,5)+5).$$

$$\mathbf{00842} := 2+\boldsymbol{P}(4!,8)/(0!+0!) = \boldsymbol{K}(2^4,8-0!)+0!.$$
$$\mathbf{02184} := 4!\times\boldsymbol{P}(8-1,(2+0!)!) = 4!\times\boldsymbol{K}((\sqrt{8+1})!,(2+0!)!).$$
$$\mathbf{03383} := \boldsymbol{P}(3\times 8,3!)\times 3-0! = -\boldsymbol{K}(3\times 8,3!)+(3!+0!)!.$$
$$\mathbf{03584} := \sqrt{4^8}\times(\boldsymbol{P}(5,3)-0!) = \boldsymbol{K}(4!,8+5)-3!+0!.$$
$$\mathbf{05677} := 7\times(\boldsymbol{P}(7,6)+(5+0!)!) = 7!+7\times\boldsymbol{K}(6,5+0!).$$

$$\mathbf{07344} := 4!\times(\boldsymbol{P}(4!,3)+7-0!) = \boldsymbol{K}(4!,4!)+3!!-(7\times 0)!.$$
$$\mathbf{13448} := (8!+4!)/\sqrt{\boldsymbol{P}(4,3)-1} = \boldsymbol{K}(-1+3!,4)^{\sqrt{4}}\times 8.$$
$$\mathbf{13499} := \boldsymbol{P}(9,\sqrt{9})\times\boldsymbol{P}(4!,3)-1 = -\boldsymbol{K}(9,9)+4!^3\times 1.$$
$$\mathbf{15399} := (-1+\sqrt{5\times 3!!})\times\boldsymbol{P}(9,9) = \boldsymbol{K}(1\times 5!/3!,9)\times 9.$$
$$\mathbf{16756} := -\boldsymbol{P}(6,5)+7^{6-1} = -\boldsymbol{K}(6,4)+7^{6-1}.$$

$$\mathbf{17537} := \boldsymbol{P}(7+3!,5)\times 71 = (\boldsymbol{K}(7,3!)+5!)\times 71.$$
$$\mathbf{17755} := \boldsymbol{P}(1+7,7)\times 5!-5 = \boldsymbol{K}(1\times 7,7)\times 5!-5.$$
$$\mathbf{17760} := \boldsymbol{P}(1+7,7)\times(6-0!)! = \boldsymbol{K}(1\times 7,7)\times(6-0!)!.$$
$$\mathbf{19888} := (1+\boldsymbol{P}(9,8))\times 88 = 8\times(\boldsymbol{K}((\sqrt{8+8})!,9)+1).$$
$$\mathbf{33488} := 8\times 8^4+\boldsymbol{P}(3,3)! = (3+3)!+\sqrt{4^{\sqrt{\boldsymbol{K}(8,8)}}}.$$

$$\mathbf{35995} := -5+(\boldsymbol{P}(9,\sqrt{9})+5)\times 3!! = -5+\boldsymbol{K}(\sqrt{9},\sqrt{9})\times 5\times 3!!.$$
$$\mathbf{38496} := 3!\times(-\boldsymbol{P}(8,4)+9\times 6!) = -\boldsymbol{K}(6,\sqrt{9})\times 4!+8!-3!!.$$
$$\mathbf{38799} := 9\times(-9+7!-(\sqrt{\boldsymbol{P}(8,3)})!) = -(\sqrt{9})!\times\boldsymbol{K}(9,7)+8!-3.$$
$$\mathbf{39435} := (3!!-\sqrt{9})\times(4+\boldsymbol{P}(3!,5)) = (\boldsymbol{K}(5,3)+4!)\times(-\sqrt{9}+3!!).$$
$$\mathbf{39486} := 3!\times 9^4+\boldsymbol{P}(8,6) = -6!+8!-\boldsymbol{K}(4,\sqrt{9})\times 3!.$$
$$\mathbf{39578} := 8!-7-\boldsymbol{P}(5,\sqrt{9})-3!! = -3!-\boldsymbol{K}(\sqrt{9}\times 5,7)+8!.$$
$$\mathbf{39648} := -\boldsymbol{P}(3+9,6\times\sqrt{4})+8! = \boldsymbol{K}(3!,\sqrt{9})-6!+\sqrt{4}+8!.$$

$$\begin{aligned}
\mathbf{39788} &:= -\boldsymbol{P}(3!+9,7)+8!+8 &&= 8!+\boldsymbol{K}(8,7)-9^3.\\
\mathbf{39789} &:= -\boldsymbol{P}(3!+9,7)+8!+9 &&= -\sqrt{9}+8\times(7!-\boldsymbol{P}((\sqrt{9})!,3!)).\\
\mathbf{39798} &:= 8!+\boldsymbol{P}(9,7)+9-3!! &&= 8!+9\times(-\boldsymbol{K}(7,\sqrt{9})+3!).\\
\mathbf{42944} &:= (-4+\boldsymbol{P}(4!,9))\times(-2+4!) &&= \boldsymbol{K}(4!+2,\sqrt{9})\times 44.\\
\mathbf{43932} &:= \boldsymbol{P}(4!,3!+9)+(3!+2)! &&= 2\times 3!+(\sqrt{9})!!\times\boldsymbol{K}(3!,4).\\
\mathbf{43998} &:= 8!+(\sqrt{9})!+\boldsymbol{P}(9,3!)\times 4! &&= 8!+(\sqrt{9})!\times\boldsymbol{K}(\sqrt{9}\times 3!,4).
\end{aligned}$$

$$\begin{aligned}
\mathbf{49344} &:= (\sqrt{4}+9)!/3!!-\boldsymbol{P}(4!,4!) &&= \boldsymbol{K}(\boldsymbol{K}(4,\sqrt{9}),3)\times 4!\times 4.\\
\mathbf{59044} &:= -5+9^{0!+\sqrt{\boldsymbol{P}(4,4)}} &&= -5+9^{\sqrt{\boldsymbol{K}(04,4)}}.\\
\mathbf{66066} &:= (6!+6)\times\boldsymbol{P}(0!+6,6) &&= (6+6!)\times\boldsymbol{K}(06,6).
\end{aligned}$$

$$\begin{aligned}
\mathbf{73445} &:= 5+4!\times\boldsymbol{P}(4!,3!+7) &&= (\sqrt{\boldsymbol{K}(7,3)})!+\boldsymbol{K}(4!,4!)\times 5.\\
\mathbf{80788} &:= \boldsymbol{P}(8,07)+8!+8! &&= \boldsymbol{K}(8-0!,7)+8!+8!.\\
\mathbf{80788} &:= 8!+\boldsymbol{P}(8,7)+(08)! &&= 8!+8!+\boldsymbol{K}(7,-0!+8).\\
\mathbf{93744} &:= (-4!\times 4!+7!)\times\boldsymbol{P}(3!,\sqrt{9}) &&= 93\times 7!/\sqrt{\boldsymbol{K}(4,4)}.\\
\mathbf{98464} &:= (4+6!)\times\boldsymbol{P}(4!-8,\sqrt{9}) &&= (4+6!)\times\boldsymbol{K}(\sqrt{4}+8,\sqrt{9}).
\end{aligned}$$

5.4 Coefficients Binomials, S-gonal, and Centered Polygonal Numbers

There are very few selfie numbers connecting three formulas: **coefficients binomials, s-gonal** and **centered polygonal numbers**. In some cases the ordered in not same, it is either in digit's order or reverse.

$$\begin{aligned}
\mathbf{13448} &:= 8+(4+4)!/C(3,1) &&= (8!+4!)/\sqrt{\boldsymbol{P}(4,3)-1} &&= \boldsymbol{K}(-1+3!,4)^{\sqrt{4}}\times 8.\\
\mathbf{39435} &:= C(5+3!,\sqrt{4})\times(-\sqrt{9}+3!!) &&= (3!!-\sqrt{9})\times(4+\boldsymbol{P}(3!,5)) &&= (\boldsymbol{K}(5,3)+4!)\times(-\sqrt{9}+3!!).\\
\mathbf{39648} &:= 8!-(\sqrt{4}+6)\times C(9,3) &&= -\boldsymbol{P}(3+9,6\times\sqrt{4})+8! &&= \boldsymbol{K}(3!,\sqrt{9})-6!+\sqrt{4}+8!.\\
\mathbf{98464} &:= C(9+8,\sqrt{4})\times(6!+4) &&= (4+6!)\times\boldsymbol{P}(4!-8,\sqrt{9}) &&= (4+6!)\times\boldsymbol{K}(\sqrt{4}+8,\sqrt{9}).
\end{aligned}$$

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