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Fibonacci Sequence and Selfie Numbers - I

Inder J. Taneja¹

Abstract

Numbers represented by their own digits by certain operations are considered as "Selfie Numbers". There are many ways of representing "Selfie Numbers", such as, numbers written in digit's order or its reverse. It can also be represented in increasing and/or decreasing order of digits. This is generally obtained by use of basis operations along with factorial and square-root, etc. In this work we have written "Selfie Numbers" using Fibonacci sequence value in digit's order and its reverse.

The work of this paper is divided in sections and subsections given below:

- 1 Introduction;
- 1.1 Selfie Numbers;
- 1.2 Fibonacci Sequence;
- 2 Palindromic Numbers Representations;
- 3 Symmetric Representations;
 - 3.1 Symmetric Representations in Both Ways;
 - 3.2 Symmetric Representations in Digit's Order;
 - 3.3 Symmetric Representations in Reverse Order of Digits;
- 4 Symmetric Representations in terms of F(2), F(3) and F(4);
 - 4.1 Symmetric Representations in Both Ways;
 - 4.2 Symmetric Representations in Digit's Order;
 - 4.3 Symmetric Representations in Reverse Order of Digits;
- 5 Number Patterns with Fibonacci Sequence Values;
- 6 More Selfie Numbers;
 - 6.1 Both Ways Representations;
 - 6.2 Digit's Order;
 - 6.3 Reverse Order of Digits.

1 Introduction

This introductory sections deals with the explanations of two principal ideas. One is on *selfie numbers* and another on obtaining selfie numbers by use of *Fibonacci sequence* values.

1.1 Selfie Numbers

Numbers represented by their own digits by use of certain operations are considered as "*Selfie Number*". These numbers are divided in two categories. These two categories are again divided in two each, i.e., one in order of digits appearing in the numbers and their reverse, and the second is in increasing and decreasing order of digits. See below examples in each category:

- Digit's Order

$$\begin{aligned} 936 &= (\sqrt{9})!^3 + 6!; \\ 1296 &= \sqrt{(1+2)!^9/6}; \\ 2896 &= 2 \times (8 + (\sqrt{9})!! + 6!); \\ 12969 &= 1 \times 2 \times 9 \times 6! + 9. \end{aligned}$$

¹Formerly, Professor of Mathematics, Universidade Federal de Santa Catarina, 88.040-900 Florianópolis, SC, Brazil.
E-mail: ijtaneja@gmail.com; Web-site: www.numbersmagic.wordpress.com.

- Reverse Order of Digits

$$\begin{aligned} 936 &= 6! + (3!)^{\sqrt{9}}; \\ 1296 &= 6^{(\sqrt{9}+2-1)}; \\ 2896 &= (6! + (\sqrt{9})!! + 8) \times 2; \\ 20167 &= 7 + (6 + 1 + 0!)!/2. \end{aligned}$$

- Increasing Order of Digits

$$\begin{aligned} 936 &= 3!! + 6^{\sqrt{9}}; \\ 1296 &= (1 + 2)! \times 6^{\sqrt{9}}; \\ 8397 &= -3 - 7! + 8!/\sqrt{9}; \\ 241965 &= (1 + (2 \times 4)! + 5) \times 6 + 9. \end{aligned}$$

- Decreasing Order of Digits

$$\begin{aligned} 936 &= (\sqrt{9})!! + 6^3; \\ 1296 &= ((\sqrt{9})! \times 6)^2 \times 1; \\ 20148 &= (8! - 4)/2 - 10; \\ 435609 &= 9 + (6! - 5!/\sqrt{4})^{(3-0!)}. \end{aligned}$$

We observe that in some case, the same number can be represented in more than one or in all the four ways. For more details on *selfie numbers* refer to author's work [11, 14, 16], [20]–[24]. For more work on numbers in different situations refer also author's work [10]–[13], [17]–[19], [25]–[44]. Also refer [1, 3, 4, 7, 8, 9] for more studies. Few basic examples connecting Fibonacci sequence values can be seen in [2].

Above we have given examples of *selfie numbers* in four different ways. This has been done using the basic operations along with *factorial* and *square-root*.

1.2 Fibonacci Sequence

Fibonacci sequence numbers are well known in literature [5, 6]. This sequence is defined as

$$F(0) = 0, \quad F(1) = 1, \quad F(n + 1) = F(n) + F(n - 1), \quad n \geq 1.$$

Initial values of Fibonacci sequence are given by

$F(1) = 1$	$F(6) = 8$	$F(11) = 89$	$F(16) = 987$	$F(21) = 10946$
$F(2) = 1$	$F(7) = 13$	$F(12) = 144$	$F(17) = 1597$	$F(22) = 17711$
$F(3) = 2$	$F(8) = 21$	$F(13) = 233$	$F(18) = 2584$	$F(23) = 28657$
$F(4) = 3$	$F(9) = 34$	$F(14) = 377$	$F(19) = 4181$	$F(24) = 46368$
$F(5) = 5$	$F(10) = 55$	$F(15) = 610$	$F(20) = 6765$	$F(25) = 75025, \text{etc,}$

Interestingly, natural numbers can be written in terms of *Fibonacci sequence* values. Below are examples:

$$\begin{array}{llll}
 0 = F(0) & 6 = F(2) + F(5) & 12 = F(2) + F(4) + F(6) & 18 = F(5) + F(7) \\
 1 = F(1) = F(2) & 7 = F(3) + F(5) & 13 = F(7) & 19 = F(2) + F(5) + F(7) \\
 2 = F(3) & 8 = F(6) & 14 = F(2) + F(7) & 20 = F(3) + F(5) + F(7) \\
 3 = F(4) & 9 = F(2) + F(6) & 15 = F(3) + F(7) & 21 = F(8) \\
 4 = F(2) + F(4) & 10 = F(3) + F(6) & 16 = F(4) + F(7) & 22 = F(2) + F(8) \\
 5 = F(5) & 11 = F(4) + F(6) & 17 = F(2) + F(4) + F(7) & 23 = F(3) + F(8) \text{ etc,}
 \end{array}$$

The work on *selfie numbers* based on *Fibonacci sequence* values is divided in three parts. See below this division:

(i) In this paper, we worked with *selfie numbers* just using the terms of Fibonacci sequences as $F(\cdot)$. See some examples, below:

$$\begin{aligned}
 256 &= 2^5 \times F(6). \\
 46493 &= F(4 \times 6) + (-4 + 9)^3 \cdot 882 = 2 \times F(8) \times F(8). \\
 1631 &= F(13) \times (6 + 1). \\
 54128 &= 8 \times (F(2) + F(1 \times 4 \times 5)).
 \end{aligned}$$

(ii) In the second paper, we used *composition* of *Fibonacci sequence* values to write numbers, such as, $F(F(\cdot))$, $F(F(F(\cdot)))$, etc. See some examples, below:

$$\begin{aligned}
 235 &= 2 + F(F(F(3) + 5)). \\
 4427 &= (F(4) + 4^2) \times F(F(7)). \\
 63 &= 3 \times F(F(6)). \\
 43956 &= (F(F(F(6)))) + 5 \times 9 - F(3) \times 4.
 \end{aligned}$$

The first two examples are in order of digits, and last two examples are in reverse order of digits. Here compositions function like, $F(F(\cdot))$, $F(F(F(\cdot)))$, arising due to *Fibonacci sequence* values are used. This is done in [45].

(iii) The third paper is a combination of parts (i) and (ii) along with *factorial* and *square-root*, for example,

$$\begin{aligned}
 447 &= (F(4))!! - F(F((F(4))!!)) \times F(7). \\
 954 &= F((\sqrt{9})!) \times 5! - F(4)!. \\
 433 &= F(F(3!))^{F(3)} - F(F(4)!). \\
 1919 &= (F((\sqrt{9})!)!/F(-1 + 9)) - 1.
 \end{aligned}$$

The first two examples are in order of digits, and last two examples are in reverse order of digits. The composition functions, like, $F(F(\cdot))$, $F(F(F(\cdot)))$, arising due to *Fibonacci sequence* values are used. along with *factorial* and *square-roots*.

2 Palindromic Number Representations

This section brings *selfie palindromic numbers* by use of *Fibonacci sequence* values. The idea of starting the work with palindromic numbers is as they are symmetric in itself, i.e., remains the same by changing the order of digits. Below are *selfie palindromic numbers*:

$$55 = F(5 + 5).$$

$$3773 = (-F(3) + F(7)) \times 7^3.$$

$$13531 = F((1 + 3) \times 5) \times F(3) + 1.$$

$$14641 = 1 + (F(4) + F(6))^4 - 1.$$

$$15251 = F(15) \times 25 + 1$$

$$39393 = 3^9 \times F(3) + 9 \times 3.$$

$$46264 = F(4 \times 6) - 26 \times 4.$$

$$46364 = F(4 \times 6) - F(3) - 6 + 4.$$

$$46464 = F(4 \times 6) + 4 \times 6 \times 4$$

$$46664 = 4 + 6^6 + F(6) - 4.$$

$$48384 = (F(4) \times 8)^{F(3)} \times 84.$$

$$62426 = (F(6) - F(2))^4 \times 26.$$

$$63936 = 6^3 \times (F(9) + 3) \times F(6).$$

$$69696 = (F(6) \times F(9) - F(6))^{F(9-6)}.$$

$$747747 = (-7 + F(4)^7) \times 7^{F(4)} + 7$$

$$777777 = F(7) \times 77 \times 777.$$

$$999999 = (9 + F(9)) \times 9 \times F(9 + 9) - 9.$$

3 Symmetric Representations

In this section, we shall give *selfie numbers* in terms of Fibonacci sequence values along with basic operations. These representations are in symmetric way, i.e., all is same except the digits 0 to 9. This happens in both ways, i.e., in digit's order and in reverse order of digits. In some cases numbers can written in both the ways. The following subsections give the symmetric numbers three situations. In this section, we have worked up to width 6, i.e., numbers having maximum 6 digits.

3.1 Symmetric Representations in Both Ways

Below are examples of numbers written in digit's order and its reverse:

$$13530 = F((1 + 3) \times 5) \times F(3) + 0 = 0 + F(3) \times F(5 \times (3 + 1))$$

$$13531 = F((1 + 3) \times 5) \times F(3) + 1 = 1 + F(3) \times F(5 \times (3 + 1))$$

$$13532 = F((1 + 3) \times 5) \times F(3) + 2 = 2 + F(3) \times F(5 \times (3 + 1))$$

$$13533 = F((1 + 3) \times 5) \times F(3) + 3 = 3 + F(3) \times F(5 \times (3 + 1))$$

$$13534 = F((1 + 3) \times 5) \times F(3) + 4 = 4 + F(3) \times F(5 \times (3 + 1))$$

$$13535 = F((1 + 3) \times 5) \times F(3) + 5 = 5 + F(3) \times F(5 \times (3 + 1))$$

$$13536 = F((1 + 3) \times 5) \times F(3) + 6 = 6 + F(3) \times F(5 \times (3 + 1))$$

$$13537 = F((1 + 3) \times 5) \times F(3) + 7 = 7 + F(3) \times F(5 \times (3 + 1))$$

$$13538 = F((1 + 3) \times 5) \times F(3) + 8 = 8 + F(3) \times F(5 \times (3 + 1))$$

$$13539 = F((1 + 3) \times 5) \times F(3) + 9 = 9 + F(3) \times F(5 \times (3 + 1)).$$

$$14640 = 0 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 0$$

$$14641 = 1 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 1$$

$$14642 = 2 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 2$$

$$14643 = 3 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 3$$

$$14644 = 4 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 4$$

$$14645 = 5 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 5$$

$$14646 = 6 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 6$$

$$14647 = 7 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 7$$

$$14648 = 8 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 8$$

$$14649 = 9 + (F(4) + F(6))^4 - 1 = -1 + (F(4) + F(6))^4 + 9.$$

$$39360 = 3^9 \times F(3) - 6 + 0 = 0 - 6 + 3^9 \times F(3)$$

$$39361 = 3^9 \times F(3) - 6 + 1 = 1 - 6 + 3^9 \times F(3)$$

$$39362 = 3^9 \times F(3) - 6 + 2 = 2 - 6 + 3^9 \times F(3)$$

$$39363 = 3^9 \times F(3) - 6 + 3 = 3 - 6 + 3^9 \times F(3)$$

$$39364 = 3^9 \times F(3) - 6 + 4 = 4 - 6 + 3^9 \times F(3)$$

$$39365 = 3^9 \times F(3) - 6 + 5 = 5 - 6 + 3^9 \times F(3)$$

$$39366 = 3^9 \times F(3) - 6 + 6 = 6 - 6 + 3^9 \times F(3)$$

$$39367 = 3^9 \times F(3) - 6 + 7 = 7 - 6 + 3^9 \times F(3)$$

$$39368 = 3^9 \times F(3) - 6 + 8 = 8 - 6 + 3^9 \times F(3)$$

$$39369 = 3^9 \times F(3) - 6 + 9 = 9 - 6 + 3^9 \times F(3).$$

$$43760 = 4 \times (F(3 \times 7) - 6) + 0 = 0 + (-6 + F(7 \times 3)) \times 4$$

$$43761 = 4 \times (F(3 \times 7) - 6) + 1 = 1 + (-6 + F(7 \times 3)) \times 4$$

$$43762 = 4 \times (F(3 \times 7) - 6) + 2 = 2 + (-6 + F(7 \times 3)) \times 4$$

$$43763 = 4 \times (F(3 \times 7) - 6) + 3 = 3 + (-6 + F(7 \times 3)) \times 4$$

$$43764 = 4 \times (F(3 \times 7) - 6) + 4 = 4 + (-6 + F(7 \times 3)) \times 4$$

$$43765 = 4 \times (F(3 \times 7) - 6) + 5 = 5 + (-6 + F(7 \times 3)) \times 4$$

$$43766 = 4 \times (F(3 \times 7) - 6) + 6 = 6 + (-6 + F(7 \times 3)) \times 4$$

$$43767 = 4 \times (F(3 \times 7) - 6) + 7 = 7 + (-6 + F(7 \times 3)) \times 4$$

$$43768 = 4 \times (F(3 \times 7) - 6) + 8 = 8 + (-6 + F(7 \times 3)) \times 4$$

$$43769 = 4 \times (F(3 \times 7) - 6) + 9 = 9 + (-6 + F(7 \times 3)) \times 4.$$

$$46360 = F(4 \times 6) - F(3) - 6 + 0 = 0 - 6 - F(3) + F(6 \times 4)$$

$$46361 = F(4 \times 6) - F(3) - 6 + 1 = 1 - 6 - F(3) + F(6 \times 4)$$

$$46362 = F(4 \times 6) - F(3) - 6 + 2 = 2 - 6 - F(3) + F(6 \times 4)$$

$$46363 = F(4 \times 6) - F(3) - 6 + 3 = 3 - 6 - F(3) + F(6 \times 4)$$

$$46364 = F(4 \times 6) - F(3) - 6 + 4 = 4 - 6 - F(3) + F(6 \times 4)$$

$$46365 = F(4 \times 6) - F(3) - 6 + 5 = 5 - 6 - F(3) + F(6 \times 4)$$

$$46366 = F(4 \times 6) - F(3) - 6 + 6 = 6 - 6 - F(3) + F(6 \times 4)$$

$$46367 = F(4 \times 6) - F(3) - 6 + 7 = 7 - 6 - F(3) + F(6 \times 4)$$

$$46368 = F(4 \times 6) - F(3) - 6 + 8 = 8 - 6 - F(3) + F(6 \times 4)$$

$$46369 = F(4 \times 6) - F(3) - 6 + 9 = 9 - 6 - F(3) + F(6 \times 4).$$

$$46380 = 4 + F(6) + F(3 \times 8) + 0 = 0 + F(8 \times 3) + F(6) + 4$$

$$46381 = 4 + F(6) + F(3 \times 8) + 1 = 1 + F(8 \times 3) + F(6) + 4$$

$$46382 = 4 + F(6) + F(3 \times 8) + 2 = 2 + F(8 \times 3) + F(6) + 4$$

$$46383 = 4 + F(6) + F(3 \times 8) + 3 = 3 + F(8 \times 3) + F(6) + 4$$

$$46384 = 4 + F(6) + F(3 \times 8) + 4 = 4 + F(8 \times 3) + F(6) + 4$$

$$46385 = 4 + F(6) + F(3 \times 8) + 5 = 5 + F(8 \times 3) + F(6) + 4$$

$$46386 = 4 + F(6) + F(3 \times 8) + 6 = 6 + F(8 \times 3) + F(6) + 4$$

$$46387 = 4 + F(6) + F(3 \times 8) + 7 = 7 + F(8 \times 3) + F(6) + 4$$

$$46388 = 4 + F(6) + F(3 \times 8) + 8 = 8 + F(8 \times 3) + F(6) + 4$$

$$46389 = 4 + F(6) + F(3 \times 8) + 9 = 9 + F(8 \times 3) + F(6) + 4.$$

$$\begin{aligned}
46660 &= -4 + F(6) + 6^6 + 0 = 0 + 6^6 + F(6) - 4 \\
46661 &= -4 + F(6) + 6^6 + 1 = 1 + 6^6 + F(6) - 4 \\
46662 &= -4 + F(6) + 6^6 + 2 = 2 + 6^6 + F(6) - 4 \\
46663 &= -4 + F(6) + 6^6 + 3 = 3 + 6^6 + F(6) - 4 \\
46664 &= -4 + F(6) + 6^6 + 4 = 4 + 6^6 + F(6) - 4 \\
46665 &= -4 + F(6) + 6^6 + 5 = 5 + 6^6 + F(6) - 4 \\
46666 &= -4 + F(6) + 6^6 + 6 = 6 + 6^6 + F(6) - 4 \\
46667 &= -4 + F(6) + 6^6 + 7 = 7 + 6^6 + F(6) - 4 \\
46668 &= -4 + F(6) + 6^6 + 8 = 8 + 6^6 + F(6) - 4 \\
46669 &= -4 + F(6) + 6^6 + 9 = 9 + 6^6 + F(6) - 4.
\end{aligned}$$

$$\begin{aligned}
46680 &= F(4) + 6^6 + F(8) + 0 = 0 + F(8) + 6^6 + F(4) \\
46681 &= F(4) + 6^6 + F(8) + 1 = 1 + F(8) + 6^6 + F(4) \\
46682 &= F(4) + 6^6 + F(8) + 2 = 2 + F(8) + 6^6 + F(4) \\
46683 &= F(4) + 6^6 + F(8) + 3 = 3 + F(8) + 6^6 + F(4) \\
46684 &= F(4) + 6^6 + F(8) + 4 = 4 + F(8) + 6^6 + F(4) \\
46685 &= F(4) + 6^6 + F(8) + 5 = 5 + F(8) + 6^6 + F(4) \\
46686 &= F(4) + 6^6 + F(8) + 6 = 6 + F(8) + 6^6 + F(4) \\
46687 &= F(4) + 6^6 + F(8) + 7 = 7 + F(8) + 6^6 + F(4) \\
46688 &= F(4) + 6^6 + F(8) + 8 = 8 + F(8) + 6^6 + F(4) \\
46689 &= F(4) + 6^6 + F(8) + 9 = 9 + F(8) + 6^6 + F(4).
\end{aligned}$$

$$\begin{aligned}
87840 &= F(8+7) \times F(8+4) + 0 = 0 + F(4+8) \times F(7+8) \\
87841 &= F(8+7) \times F(8+4) + 1 = 1 + F(4+8) \times F(7+8) \\
87842 &= F(8+7) \times F(8+4) + 2 = 2 + F(4+8) \times F(7+8) \\
87843 &= F(8+7) \times F(8+4) + 3 = 3 + F(4+8) \times F(7+8) \\
87844 &= F(8+7) \times F(8+4) + 4 = 4 + F(4+8) \times F(7+8) \\
87845 &= F(8+7) \times F(8+4) + 5 = 5 + F(4+8) \times F(7+8) \\
87846 &= F(8+7) \times F(8+4) + 6 = 6 + F(4+8) \times F(7+8) \\
87847 &= F(8+7) \times F(8+4) + 7 = 7 + F(4+8) \times F(7+8) \\
87848 &= F(8+7) \times F(8+4) + 8 = 8 + F(4+8) \times F(7+8) \\
87849 &= F(8+7) \times F(8+4) + 9 = 9 + F(4+8) \times F(7+8).
\end{aligned}$$

$$\begin{aligned}
89670 &= F(8) \times F(9+6) \times 7 + 0 = 0 + 7 \times F(6+9) \times F(8) \\
89671 &= F(8) \times F(9+6) \times 7 + 1 = 1 + 7 \times F(6+9) \times F(8) \\
89672 &= F(8) \times F(9+6) \times 7 + 2 = 2 + 7 \times F(6+9) \times F(8) \\
89673 &= F(8) \times F(9+6) \times 7 + 3 = 3 + 7 \times F(6+9) \times F(8) \\
89674 &= F(8) \times F(9+6) \times 7 + 4 = 4 + 7 \times F(6+9) \times F(8) \\
89675 &= F(8) \times F(9+6) \times 7 + 5 = 5 + 7 \times F(6+9) \times F(8) \\
89676 &= F(8) \times F(9+6) \times 7 + 6 = 6 + 7 \times F(6+9) \times F(8) \\
89677 &= F(8) \times F(9+6) \times 7 + 7 = 7 + 7 \times F(6+9) \times F(8) \\
89678 &= F(8) \times F(9+6) \times 7 + 8 = 8 + 7 \times F(6+9) \times F(8) \\
89679 &= F(8) \times F(9+6) \times 7 + 9 = 9 + 7 \times F(6+9) \times F(8).
\end{aligned}$$

$$\begin{aligned}
121390 &= -1 - 2 + F(-1 + 3 \times 9) + 0 = 0 + F(9 \times 3 - 1) - 2 - 1 \\
121391 &= -1 - 2 + F(-1 + 3 \times 9) + 1 = 1 + F(9 \times 3 - 1) - 2 - 1 \\
121392 &= -1 - 2 + F(-1 + 3 \times 9) + 2 = 2 + F(9 \times 3 - 1) - 2 - 1 \\
121393 &= -1 - 2 + F(-1 + 3 \times 9) + 3 = 3 + F(9 \times 3 - 1) - 2 - 1 \\
121394 &= -1 - 2 + F(-1 + 3 \times 9) + 4 = 4 + F(9 \times 3 - 1) - 2 - 1 \\
121395 &= -1 - 2 + F(-1 + 3 \times 9) + 5 = 5 + F(9 \times 3 - 1) - 2 - 1 \\
121396 &= -1 - 2 + F(-1 + 3 \times 9) + 6 = 6 + F(9 \times 3 - 1) - 2 - 1 \\
121397 &= -1 - 2 + F(-1 + 3 \times 9) + 7 = 7 + F(9 \times 3 - 1) - 2 - 1 \\
121398 &= -1 - 2 + F(-1 + 3 \times 9) + 8 = 8 + F(9 \times 3 - 1) - 2 - 1 \\
121399 &= -1 - 2 + F(-1 + 3 \times 9) + 9 = 9 + F(9 \times 3 - 1) - 2 - 1.
\end{aligned}$$

$$\begin{aligned}
159390 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 0 = 0 + 9 \times (F(3 \times 9 - 5) - 1) \\
159391 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 1 = 1 + 9 \times (F(3 \times 9 - 5) - 1) \\
159392 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 2 = 2 + 9 \times (F(3 \times 9 - 5) - 1) \\
159393 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 3 = 3 + 9 \times (F(3 \times 9 - 5) - 1) \\
159394 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 4 = 4 + 9 \times (F(3 \times 9 - 5) - 1) \\
159395 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 5 = 5 + 9 \times (F(3 \times 9 - 5) - 1) \\
159396 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 6 = 6 + 9 \times (F(3 \times 9 - 5) - 1) \\
159397 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 7 = 7 + 9 \times (F(3 \times 9 - 5) - 1) \\
159398 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 8 = 8 + 9 \times (F(3 \times 9 - 5) - 1) \\
159399 &= (-1 + F(-5 + 9 \times 3)) \times 9 + 9 = 9 + 9 \times (F(3 \times 9 - 5) - 1).
\end{aligned}$$

$$\begin{aligned}
196390 &= -1 \times F(9) + 6 + F(3 \times 9) + 0 = 0 + F(9 \times 3) + 6 - F(9) \times 1 \\
196391 &= -1 \times F(9) + 6 + F(3 \times 9) + 1 = 1 + F(9 \times 3) + 6 - F(9) \times 1 \\
196392 &= -1 \times F(9) + 6 + F(3 \times 9) + 2 = 2 + F(9 \times 3) + 6 - F(9) \times 1 \\
196393 &= -1 \times F(9) + 6 + F(3 \times 9) + 3 = 3 + F(9 \times 3) + 6 - F(9) \times 1 \\
196394 &= -1 \times F(9) + 6 + F(3 \times 9) + 4 = 4 + F(9 \times 3) + 6 - F(9) \times 1 \\
196395 &= -1 \times F(9) + 6 + F(3 \times 9) + 5 = 5 + F(9 \times 3) + 6 - F(9) \times 1 \\
196396 &= -1 \times F(9) + 6 + F(3 \times 9) + 6 = 6 + F(9 \times 3) + 6 - F(9) \times 1 \\
196397 &= -1 \times F(9) + 6 + F(3 \times 9) + 7 = 7 + F(9 \times 3) + 6 - F(9) \times 1 \\
196398 &= -1 \times F(9) + 6 + F(3 \times 9) + 8 = 8 + F(9 \times 3) + 6 - F(9) \times 1 \\
196399 &= -1 \times F(9) + 6 + F(3 \times 9) + 9 = 9 + F(9 \times 3) + 6 - F(9) \times 1.
\end{aligned}$$

$$\begin{aligned}
202890 &= (F(20) - 2) \times (F(8) + 9) + 0 = 0 + (9 + F(8)) \times (F(20) - 2) \\
202891 &= (F(20) - 2) \times (F(8) + 9) + 1 = 1 + (9 + F(8)) \times (F(20) - 2) \\
202892 &= (F(20) - 2) \times (F(8) + 9) + 2 = 2 + (9 + F(8)) \times (F(20) - 2) \\
202893 &= (F(20) - 2) \times (F(8) + 9) + 3 = 3 + (9 + F(8)) \times (F(20) - 2) \\
202894 &= (F(20) - 2) \times (F(8) + 9) + 4 = 4 + (9 + F(8)) \times (F(20) - 2) \\
202895 &= (F(20) - 2) \times (F(8) + 9) + 5 = 5 + (9 + F(8)) \times (F(20) - 2) \\
202896 &= (F(20) - 2) \times (F(8) + 9) + 6 = 6 + (9 + F(8)) \times (F(20) - 2) \\
202897 &= (F(20) - 2) \times (F(8) + 9) + 7 = 7 + (9 + F(8)) \times (F(20) - 2) \\
202898 &= (F(20) - 2) \times (F(8) + 9) + 8 = 8 + (9 + F(8)) \times (F(20) - 2) \\
202899 &= (F(20) - 2) \times (F(8) + 9) + 9 = 9 + (9 + F(8)) \times (F(20) - 2).
\end{aligned}$$

$$\begin{aligned}
202980 &= (F(20) + F(2)) \times (9 + F(8)) + 0 = 0 + (F(8) + 9) \times (F(20) + F(2)) \\
202981 &= (F(20) + F(2)) \times (9 + F(8)) + 1 = 1 + (F(8) + 9) \times (F(20) + F(2)) \\
202982 &= (F(20) + F(2)) \times (9 + F(8)) + 2 = 2 + (F(8) + 9) \times (F(20) + F(2)) \\
202983 &= (F(20) + F(2)) \times (9 + F(8)) + 3 = 3 + (F(8) + 9) \times (F(20) + F(2)) \\
202984 &= (F(20) + F(2)) \times (9 + F(8)) + 4 = 4 + (F(8) + 9) \times (F(20) + F(2)) \\
202985 &= (F(20) + F(2)) \times (9 + F(8)) + 5 = 5 + (F(8) + 9) \times (F(20) + F(2)) \\
202986 &= (F(20) + F(2)) \times (9 + F(8)) + 6 = 6 + (F(8) + 9) \times (F(20) + F(2)) \\
202987 &= (F(20) + F(2)) \times (9 + F(8)) + 7 = 7 + (F(8) + 9) \times (F(20) + F(2)) \\
202988 &= (F(20) + F(2)) \times (9 + F(8)) + 8 = 8 + (F(8) + 9) \times (F(20) + F(2)) \\
202989 &= (F(20) + F(2)) \times (9 + F(8)) + 9 = 9 + (F(8) + 9) \times (F(20) + F(2)).
\end{aligned}$$

$$\begin{aligned}
229780 &= (F(22) - F(9)) \times F(7) - F(8) + 0 = 0 - F(8) + F(7) \times (-F(9) + F(22)) \\
229781 &= (F(22) - F(9)) \times F(7) - F(8) + 1 = 1 - F(8) + F(7) \times (-F(9) + F(22)) \\
229782 &= (F(22) - F(9)) \times F(7) - F(8) + 2 = 2 - F(8) + F(7) \times (-F(9) + F(22)) \\
229783 &= (F(22) - F(9)) \times F(7) - F(8) + 3 = 3 - F(8) + F(7) \times (-F(9) + F(22)) \\
229784 &= (F(22) - F(9)) \times F(7) - F(8) + 4 = 4 - F(8) + F(7) \times (-F(9) + F(22)) \\
229785 &= (F(22) - F(9)) \times F(7) - F(8) + 5 = 5 - F(8) + F(7) \times (-F(9) + F(22)) \\
229786 &= (F(22) - F(9)) \times F(7) - F(8) + 6 = 6 - F(8) + F(7) \times (-F(9) + F(22)) \\
229787 &= (F(22) - F(9)) \times F(7) - F(8) + 7 = 7 - F(8) + F(7) \times (-F(9) + F(22)) \\
229788 &= (F(22) - F(9)) \times F(7) - F(8) + 8 = 8 - F(8) + F(7) \times (-F(9) + F(22)) \\
229789 &= (F(22) - F(9)) \times F(7) - F(8) + 9 = 9 - F(8) + F(7) \times (-F(9) + F(22)).
\end{aligned}$$

$$\begin{aligned}
231850 &= (2 + F(3 \times 1 \times 8)) \times 5 + 0 = 0 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231851 &= (2 + F(3 \times 1 \times 8)) \times 5 + 1 = 1 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231852 &= (2 + F(3 \times 1 \times 8)) \times 5 + 2 = 2 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231853 &= (2 + F(3 \times 1 \times 8)) \times 5 + 3 = 3 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231854 &= (2 + F(3 \times 1 \times 8)) \times 5 + 4 = 4 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231855 &= (2 + F(3 \times 1 \times 8)) \times 5 + 5 = 5 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231856 &= (2 + F(3 \times 1 \times 8)) \times 5 + 6 = 6 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231857 &= (2 + F(3 \times 1 \times 8)) \times 5 + 7 = 7 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231858 &= (2 + F(3 \times 1 \times 8)) \times 5 + 8 = 8 + 5 \times (F(8 \times 1 \times 3) + 2) \\
231859 &= (2 + F(3 \times 1 \times 8)) \times 5 + 9 = 9 + 5 \times (F(8 \times 1 \times 3) + 2).
\end{aligned}$$

$$\begin{aligned}
243540 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 0 = 0 + F(4 \times 5) \times (34 + 2) \\
243541 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 1 = 1 + F(4 \times 5) \times (34 + 2) \\
243542 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 2 = 2 + F(4 \times 5) \times (34 + 2) \\
243543 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 3 = 3 + F(4 \times 5) \times (34 + 2) \\
243544 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 4 = 4 + F(4 \times 5) \times (34 + 2) \\
243545 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 5 = 5 + F(4 \times 5) \times (34 + 2) \\
243546 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 6 = 6 + F(4 \times 5) \times (34 + 2) \\
243547 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 7 = 7 + F(4 \times 5) \times (34 + 2) \\
243548 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 8 = 8 + F(4 \times 5) \times (34 + 2) \\
243549 &= (2 + 4)^{F(3)} \times F(5 \times 4) + 9 = 9 + F(4 \times 5) \times (34 + 2).
\end{aligned}$$

$$\begin{aligned}
269280 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 0 = 0 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269281 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 1 = 1 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269282 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 2 = 2 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269283 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 3 = 3 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269284 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 4 = 4 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269285 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 5 = 5 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269286 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 6 = 6 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269287 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 7 = 7 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269288 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 8 = 8 + F(8 + 2) \times F(9) \times F(6 \times 2) \\
269289 &= F(2 \times 6) \times F(9) \times F(2 + 8) + 9 = 9 + F(8 + 2) \times F(9) \times F(6 \times 2).
\end{aligned}$$

$$\begin{aligned}
286570 &= (2 + 8) \times F(6 \times 5 - 7) + 0 = 0 + F(-7 + 5 \times 6) \times (8 + 2) \\
286571 &= (2 + 8) \times F(6 \times 5 - 7) + 1 = 1 + F(-7 + 5 \times 6) \times (8 + 2) \\
286572 &= (2 + 8) \times F(6 \times 5 - 7) + 2 = 2 + F(-7 + 5 \times 6) \times (8 + 2) \\
286573 &= (2 + 8) \times F(6 \times 5 - 7) + 3 = 3 + F(-7 + 5 \times 6) \times (8 + 2) \\
286574 &= (2 + 8) \times F(6 \times 5 - 7) + 4 = 4 + F(-7 + 5 \times 6) \times (8 + 2) \\
286575 &= (2 + 8) \times F(6 \times 5 - 7) + 5 = 5 + F(-7 + 5 \times 6) \times (8 + 2) \\
286576 &= (2 + 8) \times F(6 \times 5 - 7) + 6 = 6 + F(-7 + 5 \times 6) \times (8 + 2) \\
286577 &= (2 + 8) \times F(6 \times 5 - 7) + 7 = 7 + F(-7 + 5 \times 6) \times (8 + 2) \\
286578 &= (2 + 8) \times F(6 \times 5 - 7) + 8 = 8 + F(-7 + 5 \times 6) \times (8 + 2) \\
286579 &= (2 + 8) \times F(6 \times 5 - 7) + 9 = 9 + F(-7 + 5 \times 6) \times (8 + 2).
\end{aligned}$$

$$\begin{aligned}
317790 &= F((3 + 1) \times 7) + F(7) - F(9) + 0 = 0 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317791 &= F((3 + 1) \times 7) + F(7) - F(9) + 1 = 1 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317792 &= F((3 + 1) \times 7) + F(7) - F(9) + 2 = 2 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317793 &= F((3 + 1) \times 7) + F(7) - F(9) + 3 = 3 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317794 &= F((3 + 1) \times 7) + F(7) - F(9) + 4 = 4 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317795 &= F((3 + 1) \times 7) + F(7) - F(9) + 5 = 5 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317796 &= F((3 + 1) \times 7) + F(7) - F(9) + 6 = 6 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317797 &= F((3 + 1) \times 7) + F(7) - F(9) + 7 = 7 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317798 &= F((3 + 1) \times 7) + F(7) - F(9) + 8 = 8 - F(9) + F(7) + F(7 \times (1 + 3)) \\
317799 &= F((3 + 1) \times 7) + F(7) - F(9) + 9 = 9 - F(9) + F(7) + F(7 \times (1 + 3)).
\end{aligned}$$

$$\begin{aligned}
317830 &= F((3 + 1) \times 7) + F(8) - F(3) + 0 = 0 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317831 &= F((3 + 1) \times 7) + F(8) - F(3) + 1 = 1 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317832 &= F((3 + 1) \times 7) + F(8) - F(3) + 2 = 2 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317833 &= F((3 + 1) \times 7) + F(8) - F(3) + 3 = 3 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317834 &= F((3 + 1) \times 7) + F(8) - F(3) + 4 = 4 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317835 &= F((3 + 1) \times 7) + F(8) - F(3) + 5 = 5 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317836 &= F((3 + 1) \times 7) + F(8) - F(3) + 6 = 6 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317837 &= F((3 + 1) \times 7) + F(8) - F(3) + 7 = 7 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317838 &= F((3 + 1) \times 7) + F(8) - F(3) + 8 = 8 - F(3) + F(8) + F(7 \times (1 + 3)) \\
317839 &= F((3 + 1) \times 7) + F(8) - F(3) + 9 = 9 - F(3) + F(8) + F(7 \times (1 + 3)).
\end{aligned}$$

$$\begin{aligned}
368360 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 0 = 0 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368361 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 1 = 1 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368362 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 2 = 2 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368363 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 3 = 3 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368364 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 4 = 4 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368365 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 5 = 5 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368366 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 6 = 6 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368367 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 7 = 7 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368368 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 8 = 8 + F(6) \times F(3 \times 8) - F(6 \times 3) \\
368369 &= -F(3 \times 6) + F(8 \times 3) \times F(6) + 9 = 9 + F(6) \times F(3 \times 8) - F(6 \times 3).
\end{aligned}$$

$$\begin{aligned}
372020 &= F(3 + 7) \times (F(20) - F(2)) + 0 = 0 + (F(20) - F(2)) \times F(7 + 3) \\
372021 &= F(3 + 7) \times (F(20) - F(2)) + 1 = 1 + (F(20) - F(2)) \times F(7 + 3) \\
372022 &= F(3 + 7) \times (F(20) - F(2)) + 2 = 2 + (F(20) - F(2)) \times F(7 + 3) \\
372023 &= F(3 + 7) \times (F(20) - F(2)) + 3 = 3 + (F(20) - F(2)) \times F(7 + 3) \\
372024 &= F(3 + 7) \times (F(20) - F(2)) + 4 = 4 + (F(20) - F(2)) \times F(7 + 3) \\
372025 &= F(3 + 7) \times (F(20) - F(2)) + 5 = 5 + (F(20) - F(2)) \times F(7 + 3) \\
372026 &= F(3 + 7) \times (F(20) - F(2)) + 6 = 6 + (F(20) - F(2)) \times F(7 + 3) \\
372027 &= F(3 + 7) \times (F(20) - F(2)) + 7 = 7 + (F(20) - F(2)) \times F(7 + 3) \\
372028 &= F(3 + 7) \times (F(20) - F(2)) + 8 = 8 + (F(20) - F(2)) \times F(7 + 3) \\
372029 &= F(3 + 7) \times (F(20) - F(2)) + 9 = 9 + (F(20) - F(2)) \times F(7 + 3).
\end{aligned}$$

$$\begin{aligned}
392780 &= F(3 \times 9) \times 2 - 7 \times 8 + 0 = 0 - 8 \times 7 + 2 \times F(9 \times 3) \\
392781 &= F(3 \times 9) \times 2 - 7 \times 8 + 1 = 1 - 8 \times 7 + 2 \times F(9 \times 3) \\
392782 &= F(3 \times 9) \times 2 - 7 \times 8 + 2 = 2 - 8 \times 7 + 2 \times F(9 \times 3) \\
392783 &= F(3 \times 9) \times 2 - 7 \times 8 + 3 = 3 - 8 \times 7 + 2 \times F(9 \times 3) \\
392784 &= F(3 \times 9) \times 2 - 7 \times 8 + 4 = 4 - 8 \times 7 + 2 \times F(9 \times 3) \\
392785 &= F(3 \times 9) \times 2 - 7 \times 8 + 5 = 5 - 8 \times 7 + 2 \times F(9 \times 3) \\
392786 &= F(3 \times 9) \times 2 - 7 \times 8 + 6 = 6 - 8 \times 7 + 2 \times F(9 \times 3) \\
392787 &= F(3 \times 9) \times 2 - 7 \times 8 + 7 = 7 - 8 \times 7 + 2 \times F(9 \times 3) \\
392788 &= F(3 \times 9) \times 2 - 7 \times 8 + 8 = 8 - 8 \times 7 + 2 \times F(9 \times 3) \\
392789 &= F(3 \times 9) \times 2 - 7 \times 8 + 9 = 9 - 8 \times 7 + 2 \times F(9 \times 3).
\end{aligned}$$

$$\begin{aligned}
392820 &= F(3 \times 9) \times 2 - 8 \times 2 + 0 = 0 - 2 \times 8 + 2 \times F(9 \times 3) \\
392821 &= F(3 \times 9) \times 2 - 8 \times 2 + 1 = 1 - 2 \times 8 + 2 \times F(9 \times 3) \\
392822 &= F(3 \times 9) \times 2 - 8 \times 2 + 2 = 2 - 2 \times 8 + 2 \times F(9 \times 3) \\
392823 &= F(3 \times 9) \times 2 - 8 \times 2 + 3 = 3 - 2 \times 8 + 2 \times F(9 \times 3) \\
392824 &= F(3 \times 9) \times 2 - 8 \times 2 + 4 = 4 - 2 \times 8 + 2 \times F(9 \times 3) \\
392825 &= F(3 \times 9) \times 2 - 8 \times 2 + 5 = 5 - 2 \times 8 + 2 \times F(9 \times 3) \\
392826 &= F(3 \times 9) \times 2 - 8 \times 2 + 6 = 6 - 2 \times 8 + 2 \times F(9 \times 3) \\
392827 &= F(3 \times 9) \times 2 - 8 \times 2 + 7 = 7 - 2 \times 8 + 2 \times F(9 \times 3) \\
392828 &= F(3 \times 9) \times 2 - 8 \times 2 + 8 = 8 - 2 \times 8 + 2 \times F(9 \times 3) \\
392829 &= F(3 \times 9) \times 2 - 8 \times 2 + 9 = 9 - 2 \times 8 + 2 \times F(9 \times 3).
\end{aligned}$$

$$\begin{aligned}
392830 &= F(3 \times 9) \times 2 - 8 + F(3) + 0 = 0 + F(3) - 8 + 2 \times F(9 \times 3) \\
392831 &= F(3 \times 9) \times 2 - 8 + F(3) + 1 = 1 + F(3) - 8 + 2 \times F(9 \times 3) \\
392832 &= F(3 \times 9) \times 2 - 8 + F(3) + 2 = 2 + F(3) - 8 + 2 \times F(9 \times 3) \\
392833 &= F(3 \times 9) \times 2 - 8 + F(3) + 3 = 3 + F(3) - 8 + 2 \times F(9 \times 3) \\
392834 &= F(3 \times 9) \times 2 - 8 + F(3) + 4 = 4 + F(3) - 8 + 2 \times F(9 \times 3) \\
392835 &= F(3 \times 9) \times 2 - 8 + F(3) + 5 = 5 + F(3) - 8 + 2 \times F(9 \times 3) \\
392836 &= F(3 \times 9) \times 2 - 8 + F(3) + 6 = 6 + F(3) - 8 + 2 \times F(9 \times 3) \\
392837 &= F(3 \times 9) \times 2 - 8 + F(3) + 7 = 7 + F(3) - 8 + 2 \times F(9 \times 3) \\
392838 &= F(3 \times 9) \times 2 - 8 + F(3) + 8 = 8 + F(3) - 8 + 2 \times F(9 \times 3) \\
392839 &= F(3 \times 9) \times 2 - 8 + F(3) + 9 = 9 + F(3) - 8 + 2 \times F(9 \times 3).
\end{aligned}$$

$$\begin{aligned}
392840 &= F(3 \times 9) \times 2 + 8 - 4 + 0 = 0 - 4 + 8 + 2 \times F(9 \times 3) \\
392841 &= F(3 \times 9) \times 2 + 8 - 4 + 1 = 1 - 4 + 8 + 2 \times F(9 \times 3) \\
392842 &= F(3 \times 9) \times 2 + 8 - 4 + 2 = 2 - 4 + 8 + 2 \times F(9 \times 3) \\
392843 &= F(3 \times 9) \times 2 + 8 - 4 + 3 = 3 - 4 + 8 + 2 \times F(9 \times 3) \\
392844 &= F(3 \times 9) \times 2 + 8 - 4 + 4 = 4 - 4 + 8 + 2 \times F(9 \times 3) \\
392845 &= F(3 \times 9) \times 2 + 8 - 4 + 5 = 5 - 4 + 8 + 2 \times F(9 \times 3) \\
392846 &= F(3 \times 9) \times 2 + 8 - 4 + 6 = 6 - 4 + 8 + 2 \times F(9 \times 3) \\
392847 &= F(3 \times 9) \times 2 + 8 - 4 + 7 = 7 - 4 + 8 + 2 \times F(9 \times 3) \\
392848 &= F(3 \times 9) \times 2 + 8 - 4 + 8 = 8 - 4 + 8 + 2 \times F(9 \times 3) \\
392849 &= F(3 \times 9) \times 2 + 8 - 4 + 9 = 9 - 4 + 8 + 2 \times F(9 \times 3).
\end{aligned}$$

$$\begin{aligned}
392870 &= F(3 \times 9) \times 2 + F(8) + F(7) + 0 = 0 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392871 &= F(3 \times 9) \times 2 + F(8) + F(7) + 1 = 1 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392872 &= F(3 \times 9) \times 2 + F(8) + F(7) + 2 = 2 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392873 &= F(3 \times 9) \times 2 + F(8) + F(7) + 3 = 3 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392874 &= F(3 \times 9) \times 2 + F(8) + F(7) + 4 = 4 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392875 &= F(3 \times 9) \times 2 + F(8) + F(7) + 5 = 5 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392876 &= F(3 \times 9) \times 2 + F(8) + F(7) + 6 = 6 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392877 &= F(3 \times 9) \times 2 + F(8) + F(7) + 7 = 7 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392878 &= F(3 \times 9) \times 2 + F(8) + F(7) + 8 = 8 + F(7) + F(8) + 2 \times F(9 \times 3) \\
392879 &= F(3 \times 9) \times 2 + F(8) + F(7) + 9 = 9 + F(7) + F(8) + 2 \times F(9 \times 3).
\end{aligned}$$

$$\begin{aligned}
393590 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 0 = 0 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393591 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 1 = 1 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393592 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 2 = 2 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393593 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 3 = 3 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393594 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 4 = 4 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393595 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 5 = 5 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393596 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 6 = 6 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393597 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 7 = 7 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393598 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 8 = 8 + (F(9 + 5) + F(3 \times 9)) \times F(3) \\
393599 &= F(3) \times (F(9 \times 3) + F(5 + 9)) + 9 = 9 + (F(9 + 5) + F(3 \times 9)) \times F(3).
\end{aligned}$$

$$\begin{aligned}
437960 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 0 = 0 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437961 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 1 = 1 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437962 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 2 = 2 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437963 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 3 = 3 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437964 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 4 = 4 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437965 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 5 = 5 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437966 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 6 = 6 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437967 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 7 = 7 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437968 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 8 = 8 + (6 + F(9)) \times (F(7 \times 3) + F(4)) \\
437969 &= (F(4) + F(3 \times 7)) \times (F(9) + 6) + 9 = 9 + (6 + F(9)) \times (F(7 \times 3) + F(4)).
\end{aligned}$$

$$\begin{aligned}
444690 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 0 = 0 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444691 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 1 = 1 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444692 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 2 = 2 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444693 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 3 = 3 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444694 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 4 = 4 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444695 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 5 = 5 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444696 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 6 = 6 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444697 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 7 = 7 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444698 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 8 = 8 + F(9 + 6) \times (F(4) \times F(4))^{F(4)} \\
444699 &= (F(4) \times F(4))^{F(4)} \times F(6 + 9) + 9 = 9 + F(9 + 6) \times (F(4) \times F(4))^{F(4)}.
\end{aligned}$$

$$\begin{aligned}
463650 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 0 = 0 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463651 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 1 = 1 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463652 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 2 = 2 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463653 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 3 = 3 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463654 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 4 = 4 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463655 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 5 = 5 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463656 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 6 = 6 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463657 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 7 = 7 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463658 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 8 = 8 + 5 \times (-6 + F(3) \times F(6 \times 4)) \\
463659 &= (F(4 \times 6) \times F(3) - 6) \times 5 + 9 = 9 + 5 \times (-6 + F(3) \times F(6 \times 4)).
\end{aligned}$$

$$\begin{aligned}
463680 &= F(4 \times 6) \times (3 \times 6 - 8) + 0 = 0 + (8 + 6/3) \times F(6 \times 4) \\
463681 &= F(4 \times 6) \times (3 \times 6 - 8) + 1 = 1 + (8 + 6/3) \times F(6 \times 4) \\
463682 &= F(4 \times 6) \times (3 \times 6 - 8) + 2 = 2 + (8 + 6/3) \times F(6 \times 4) \\
463683 &= F(4 \times 6) \times (3 \times 6 - 8) + 3 = 3 + (8 + 6/3) \times F(6 \times 4) \\
463684 &= F(4 \times 6) \times (3 \times 6 - 8) + 4 = 4 + (8 + 6/3) \times F(6 \times 4) \\
463685 &= F(4 \times 6) \times (3 \times 6 - 8) + 5 = 5 + (8 + 6/3) \times F(6 \times 4) \\
463686 &= F(4 \times 6) \times (3 \times 6 - 8) + 6 = 6 + (8 + 6/3) \times F(6 \times 4) \\
463687 &= F(4 \times 6) \times (3 \times 6 - 8) + 7 = 7 + (8 + 6/3) \times F(6 \times 4) \\
463688 &= F(4 \times 6) \times (3 \times 6 - 8) + 8 = 8 + (8 + 6/3) \times F(6 \times 4) \\
463689 &= F(4 \times 6) \times (3 \times 6 - 8) + 9 = 9 + (8 + 6/3) \times F(6 \times 4).
\end{aligned}$$

$$\begin{aligned}
466530 &= (-F(4) + 6^6) \times 5 \times F(3) + 0 = 0 + F(3) \times 5 \times (6^6 - F(4)) \\
466531 &= (-F(4) + 6^6) \times 5 \times F(3) + 1 = 1 + F(3) \times 5 \times (6^6 - F(4)) \\
466532 &= (-F(4) + 6^6) \times 5 \times F(3) + 2 = 2 + F(3) \times 5 \times (6^6 - F(4)) \\
466533 &= (-F(4) + 6^6) \times 5 \times F(3) + 3 = 3 + F(3) \times 5 \times (6^6 - F(4)) \\
466534 &= (-F(4) + 6^6) \times 5 \times F(3) + 4 = 4 + F(3) \times 5 \times (6^6 - F(4)) \\
466535 &= (-F(4) + 6^6) \times 5 \times F(3) + 5 = 5 + F(3) \times 5 \times (6^6 - F(4)) \\
466536 &= (-F(4) + 6^6) \times 5 \times F(3) + 6 = 6 + F(3) \times 5 \times (6^6 - F(4)) \\
466537 &= (-F(4) + 6^6) \times 5 \times F(3) + 7 = 7 + F(3) \times 5 \times (6^6 - F(4)) \\
466538 &= (-F(4) + 6^6) \times 5 \times F(3) + 8 = 8 + F(3) \times 5 \times (6^6 - F(4)) \\
466539 &= (-F(4) + 6^6) \times 5 \times F(3) + 9 = 9 + F(3) \times 5 \times (6^6 - F(4)).
\end{aligned}$$

$$\begin{aligned}
525170 &= -5 + F(25) \times 1 \times 7 + 0 = 0 + 7 \times 1 \times F(5^2) - 5 \\
525171 &= -5 + F(25) \times 1 \times 7 + 1 = 1 + 7 \times 1 \times F(5^2) - 5 \\
525172 &= -5 + F(25) \times 1 \times 7 + 2 = 2 + 7 \times 1 \times F(5^2) - 5 \\
525173 &= -5 + F(25) \times 1 \times 7 + 3 = 3 + 7 \times 1 \times F(5^2) - 5 \\
525174 &= -5 + F(25) \times 1 \times 7 + 4 = 4 + 7 \times 1 \times F(5^2) - 5 \\
525175 &= -5 + F(25) \times 1 \times 7 + 5 = 5 + 7 \times 1 \times F(5^2) - 5 \\
525176 &= -5 + F(25) \times 1 \times 7 + 6 = 6 + 7 \times 1 \times F(5^2) - 5 \\
525177 &= -5 + F(25) \times 1 \times 7 + 7 = 7 + 7 \times 1 \times F(5^2) - 5 \\
525178 &= -5 + F(25) \times 1 \times 7 + 8 = 8 + 7 \times 1 \times F(5^2) - 5 \\
525179 &= -5 + F(25) \times 1 \times 7 + 9 = 9 + 7 \times 1 \times F(5^2) - 5.
\end{aligned}$$

$$\begin{aligned}
525180 &= 5 + F(25) \times (-1 + 8) + 0 = 0 + (8 - 1) \times F(5^2) + 5 \\
525181 &= 5 + F(25) \times (-1 + 8) + 1 = 1 + (8 - 1) \times F(5^2) + 5 \\
525182 &= 5 + F(25) \times (-1 + 8) + 2 = 2 + (8 - 1) \times F(5^2) + 5 \\
525183 &= 5 + F(25) \times (-1 + 8) + 3 = 3 + (8 - 1) \times F(5^2) + 5 \\
525184 &= 5 + F(25) \times (-1 + 8) + 4 = 4 + (8 - 1) \times F(5^2) + 5 \\
525185 &= 5 + F(25) \times (-1 + 8) + 5 = 5 + (8 - 1) \times F(5^2) + 5 \\
525186 &= 5 + F(25) \times (-1 + 8) + 6 = 6 + (8 - 1) \times F(5^2) + 5 \\
525187 &= 5 + F(25) \times (-1 + 8) + 7 = 7 + (8 - 1) \times F(5^2) + 5 \\
525188 &= 5 + F(25) \times (-1 + 8) + 8 = 8 + (8 - 1) \times F(5^2) + 5 \\
525189 &= 5 + F(25) \times (-1 + 8) + 9 = 9 + (8 - 1) \times F(5^2) + 5.
\end{aligned}$$

$$\begin{aligned}
606970 &= (6^{06} + F(9)) \times F(7) + 0 = 0 + F(7) \times (F(9) + 6^{06}) \\
606971 &= (6^{06} + F(9)) \times F(7) + 1 = 1 + F(7) \times (F(9) + 6^{06}) \\
606972 &= (6^{06} + F(9)) \times F(7) + 2 = 2 + F(7) \times (F(9) + 6^{06}) \\
606973 &= (6^{06} + F(9)) \times F(7) + 3 = 3 + F(7) \times (F(9) + 6^{06}) \\
606974 &= (6^{06} + F(9)) \times F(7) + 4 = 4 + F(7) \times (F(9) + 6^{06}) \\
606975 &= (6^{06} + F(9)) \times F(7) + 5 = 5 + F(7) \times (F(9) + 6^{06}) \\
606976 &= (6^{06} + F(9)) \times F(7) + 6 = 6 + F(7) \times (F(9) + 6^{06}) \\
606977 &= (6^{06} + F(9)) \times F(7) + 7 = 7 + F(7) \times (F(9) + 6^{06}) \\
606978 &= (6^{06} + F(9)) \times F(7) + 8 = 8 + F(7) \times (F(9) + 6^{06}) \\
606979 &= (6^{06} + F(9)) \times F(7) + 9 = 9 + F(7) \times (F(9) + 6^{06}).
\end{aligned}$$

$$\begin{aligned}
689640 &= F(6) \times F(8) \times (9 + F(6)^4) + 0 = 0 + (4^6 + 9) \times F(8) \times F(6) \\
689641 &= F(6) \times F(8) \times (9 + F(6)^4) + 1 = 1 + (4^6 + 9) \times F(8) \times F(6) \\
689642 &= F(6) \times F(8) \times (9 + F(6)^4) + 2 = 2 + (4^6 + 9) \times F(8) \times F(6) \\
689643 &= F(6) \times F(8) \times (9 + F(6)^4) + 3 = 3 + (4^6 + 9) \times F(8) \times F(6) \\
689644 &= F(6) \times F(8) \times (9 + F(6)^4) + 4 = 4 + (4^6 + 9) \times F(8) \times F(6) \\
689645 &= F(6) \times F(8) \times (9 + F(6)^4) + 5 = 5 + (4^6 + 9) \times F(8) \times F(6) \\
689646 &= F(6) \times F(8) \times (9 + F(6)^4) + 6 = 6 + (4^6 + 9) \times F(8) \times F(6) \\
689647 &= F(6) \times F(8) \times (9 + F(6)^4) + 7 = 7 + (4^6 + 9) \times F(8) \times F(6) \\
689648 &= F(6) \times F(8) \times (9 + F(6)^4) + 8 = 8 + (4^6 + 9) \times F(8) \times F(6) \\
689649 &= F(6) \times F(8) \times (9 + F(6)^4) + 9 = 9 + (4^6 + 9) \times F(8) \times F(6).
\end{aligned}$$

$$\begin{aligned}
823540 &= (8 - F(2))^{F(3)+5} - F(4) + 0 = 0 - F(4) + (5 + F(3))^{-F(2)+8} \\
823541 &= (8 - F(2))^{F(3)+5} - F(4) + 1 = 1 - F(4) + (5 + F(3))^{-F(2)+8} \\
823542 &= (8 - F(2))^{F(3)+5} - F(4) + 2 = 2 - F(4) + (5 + F(3))^{-F(2)+8} \\
823543 &= (8 - F(2))^{F(3)+5} - F(4) + 3 = 3 - F(4) + (5 + F(3))^{-F(2)+8} \\
823544 &= (8 - F(2))^{F(3)+5} - F(4) + 4 = 4 - F(4) + (5 + F(3))^{-F(2)+8} \\
823545 &= (8 - F(2))^{F(3)+5} - F(4) + 5 = 5 - F(4) + (5 + F(3))^{-F(2)+8} \\
823546 &= (8 - F(2))^{F(3)+5} - F(4) + 6 = 6 - F(4) + (5 + F(3))^{-F(2)+8} \\
823547 &= (8 - F(2))^{F(3)+5} - F(4) + 7 = 7 - F(4) + (5 + F(3))^{-F(2)+8} \\
823548 &= (8 - F(2))^{F(3)+5} - F(4) + 8 = 8 - F(4) + (5 + F(3))^{-F(2)+8} \\
823549 &= (8 - F(2))^{F(3)+5} - F(4) + 9 = 9 - F(4) + (5 + F(3))^{-F(2)+8}.
\end{aligned}$$

$$\begin{aligned}
832040 &= F(8 \times 3 + 2 + 04) + 0 = 0 + F(40 \times 2 \times 3/8) \\
832041 &= F(8 \times 3 + 2 + 04) + 1 = 1 + F(40 \times 2 \times 3/8) \\
832042 &= F(8 \times 3 + 2 + 04) + 2 = 2 + F(40 \times 2 \times 3/8) \\
832043 &= F(8 \times 3 + 2 + 04) + 3 = 3 + F(40 \times 2 \times 3/8) \\
832044 &= F(8 \times 3 + 2 + 04) + 4 = 4 + F(40 \times 2 \times 3/8) \\
832045 &= F(8 \times 3 + 2 + 04) + 5 = 5 + F(40 \times 2 \times 3/8) \\
832046 &= F(8 \times 3 + 2 + 04) + 6 = 6 + F(40 \times 2 \times 3/8) \\
832047 &= F(8 \times 3 + 2 + 04) + 7 = 7 + F(40 \times 2 \times 3/8) \\
832048 &= F(8 \times 3 + 2 + 04) + 8 = 8 + F(40 \times 2 \times 3/8) \\
832049 &= F(8 \times 3 + 2 + 04) + 9 = 9 + F(40 \times 2 \times 3/8).
\end{aligned}$$

$$\begin{aligned}
834570 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 0 = 0 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834571 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 1 = 1 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834572 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 2 = 2 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834573 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 3 = 3 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834574 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 4 = 4 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834575 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 5 = 5 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834576 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 6 = 6 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834577 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 7 = 7 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834578 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 8 = 8 + (F(7) + 5) \times (-F(4) + F(3 \times 8)) \\
834579 &= (F(8 \times 3) - F(4)) \times (5 + F(7)) + 9 = 9 + (F(7) + 5) \times (-F(4) + F(3 \times 8)).
\end{aligned}$$

$$\begin{aligned}
834660 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 0 = 0 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834661 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 1 = 1 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834662 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 2 = 2 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834663 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 3 = 3 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834664 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 4 = 4 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834665 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 5 = 5 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834666 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 6 = 6 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834667 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 7 = 7 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834668 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 8 = 8 + 6 \times (6 + F(4) \times F(3 \times 8)) \\
834669 &= (F(8 \times 3) \times F(4) + 6) \times 6 + 9 = 9 + 6 \times (6 + F(4) \times F(3 \times 8)).
\end{aligned}$$

$$\begin{aligned}
922740 &= (F(9) + F(22)) \times F(7) \times 4 + 0 = 0 + 4 \times F(7) \times (F(22) + F(9)) \\
922741 &= (F(9) + F(22)) \times F(7) \times 4 + 1 = 1 + 4 \times F(7) \times (F(22) + F(9)) \\
922742 &= (F(9) + F(22)) \times F(7) \times 4 + 2 = 2 + 4 \times F(7) \times (F(22) + F(9)) \\
922743 &= (F(9) + F(22)) \times F(7) \times 4 + 3 = 3 + 4 \times F(7) \times (F(22) + F(9)) \\
922744 &= (F(9) + F(22)) \times F(7) \times 4 + 4 = 4 + 4 \times F(7) \times (F(22) + F(9)) \\
922745 &= (F(9) + F(22)) \times F(7) \times 4 + 5 = 5 + 4 \times F(7) \times (F(22) + F(9)) \\
922746 &= (F(9) + F(22)) \times F(7) \times 4 + 6 = 6 + 4 \times F(7) \times (F(22) + F(9)) \\
922747 &= (F(9) + F(22)) \times F(7) \times 4 + 7 = 7 + 4 \times F(7) \times (F(22) + F(9)) \\
922748 &= (F(9) + F(22)) \times F(7) \times 4 + 8 = 8 + 4 \times F(7) \times (F(22) + F(9)) \\
922749 &= (F(9) + F(22)) \times F(7) \times 4 + 9 = 9 + 4 \times F(7) \times (F(22) + F(9)).
\end{aligned}$$

$$\begin{aligned}
973830 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 0 = 0 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973831 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 1 = 1 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973832 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 2 = 2 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973833 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 3 = 3 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973834 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 4 = 4 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973835 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 5 = 5 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973836 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 6 = 6 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973837 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 7 = 7 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973838 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 8 = 8 + 3 \times (7 \times F(8 \times 3) + F(9)) \\
973839 &= (F(9) + 7 \times F(3 \times 8)) \times 3 + 9 = 9 + 3 \times (7 \times F(8 \times 3) + F(9)).
\end{aligned}$$

$$\begin{aligned}
974440 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 0 = 0 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974441 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 1 = 1 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974442 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 2 = 2 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974443 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 3 = 3 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974444 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 4 = 4 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974445 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 5 = 5 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974446 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 6 = 6 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974447 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 7 = 7 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974448 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 8 = 8 + (F(4) + F(4 \times 4 + 7)) \times F(9) \\
974449 &= F(9) \times (F(7 + 4 \times 4) + F(4)) + 9 = 9 + (F(4) + F(4 \times 4 + 7)) \times F(9).
\end{aligned}$$

$$\begin{aligned}
974610 &= F(9) \times 7 \times (4^6 - 1) + 0 = 0 + (-1 + F(6)^4) \times 7 \times F(9) \\
974611 &= F(9) \times 7 \times (4^6 - 1) + 1 = 1 + (-1 + F(6)^4) \times 7 \times F(9) \\
974612 &= F(9) \times 7 \times (4^6 - 1) + 2 = 2 + (-1 + F(6)^4) \times 7 \times F(9) \\
974613 &= F(9) \times 7 \times (4^6 - 1) + 3 = 3 + (-1 + F(6)^4) \times 7 \times F(9) \\
974614 &= F(9) \times 7 \times (4^6 - 1) + 4 = 4 + (-1 + F(6)^4) \times 7 \times F(9) \\
974615 &= F(9) \times 7 \times (4^6 - 1) + 5 = 5 + (-1 + F(6)^4) \times 7 \times F(9) \\
974616 &= F(9) \times 7 \times (4^6 - 1) + 6 = 6 + (-1 + F(6)^4) \times 7 \times F(9) \\
974617 &= F(9) \times 7 \times (4^6 - 1) + 7 = 7 + (-1 + F(6)^4) \times 7 \times F(9) \\
974618 &= F(9) \times 7 \times (4^6 - 1) + 8 = 8 + (-1 + F(6)^4) \times 7 \times F(9) \\
974619 &= F(9) \times 7 \times (4^6 - 1) + 9 = 9 + (-1 + F(6)^4) \times 7 \times F(9).
\end{aligned}$$

3.2 Symmetric Representations in Digit's Order

Below are examples of numbers written in digit's order:

$$\begin{aligned}
15250 &= F(15) \times 25 + 0 & 59320 &= (5 + F(9))^3 + F(2) + 0 \\
15251 &= F(15) \times 25 + 1 & 59321 &= (5 + F(9))^3 + F(2) + 1 \\
15252 &= F(15) \times 25 + 2 & 59322 &= (5 + F(9))^3 + F(2) + 2 \\
15253 &= F(15) \times 25 + 3 & 59323 &= (5 + F(9))^3 + F(2) + 3 \\
15254 &= F(15) \times 25 + 4 & 59324 &= (5 + F(9))^3 + F(2) + 4 \\
15255 &= F(15) \times 25 + 5 & 59325 &= (5 + F(9))^3 + F(2) + 5 \\
15256 &= F(15) \times 25 + 6 & 59326 &= (5 + F(9))^3 + F(2) + 6 \\
15257 &= F(15) \times 25 + 7 & 59327 &= (5 + F(9))^3 + F(2) + 7 \\
15258 &= F(15) \times 25 + 8 & 59328 &= (5 + F(9))^3 + F(2) + 8 \\
15259 &= F(15) \times 25 + 9. & 59329 &= (5 + F(9))^3 + F(2) + 9.
\end{aligned}$$

$$\begin{aligned}
32760 &= F(3)^{2+F(7)} - F(6) + 0 & 109370 &= 10 \times (-9 + F(3 \times 7)) + 0 \\
32761 &= F(3)^{2+F(7)} - F(6) + 1 & 109371 &= 10 \times (-9 + F(3 \times 7)) + 1 \\
32762 &= F(3)^{2+F(7)} - F(6) + 2 & 109372 &= 10 \times (-9 + F(3 \times 7)) + 2 \\
32763 &= F(3)^{2+F(7)} - F(6) + 3 & 109373 &= 10 \times (-9 + F(3 \times 7)) + 3 \\
32764 &= F(3)^{2+F(7)} - F(6) + 4 & 109374 &= 10 \times (-9 + F(3 \times 7)) + 4 \\
32765 &= F(3)^{2+F(7)} - F(6) + 5 & 109375 &= 10 \times (-9 + F(3 \times 7)) + 5 \\
32766 &= F(3)^{2+F(7)} - F(6) + 6 & 109376 &= 10 \times (-9 + F(3 \times 7)) + 6 \\
32767 &= F(3)^{2+F(7)} - F(6) + 7 & 109377 &= 10 \times (-9 + F(3 \times 7)) + 7 \\
32768 &= F(3)^{2+F(7)} - F(6) + 8 & 109378 &= 10 \times (-9 + F(3 \times 7)) + 8 \\
32769 &= F(3)^{2+F(7)} - F(6) + 9. & 109379 &= 10 \times (-9 + F(3 \times 7)) + 9.
\end{aligned}$$

$$\begin{aligned}142130 &= F(14)^2 + 1^3 + 0 \\142131 &= F(14)^2 + 1^3 + 1 \\142132 &= F(14)^2 + 1^3 + 2 \\142133 &= F(14)^2 + 1^3 + 3 \\142134 &= F(14)^2 + 1^3 + 4 \\142135 &= F(14)^2 + 1^3 + 5 \\142136 &= F(14)^2 + 1^3 + 6 \\142137 &= F(14)^2 + 1^3 + 7 \\142138 &= F(14)^2 + 1^3 + 8 \\142139 &= F(14)^2 + 1^3 + 9.\end{aligned}$$

$$\begin{aligned}152500 &= F(15) \times 250 + 0 \\152501 &= F(15) \times 250 + 1 \\152502 &= F(15) \times 250 + 2 \\152503 &= F(15) \times 250 + 3 \\152504 &= F(15) \times 250 + 4 \\152505 &= F(15) \times 250 + 5 \\152506 &= F(15) \times 250 + 6 \\152507 &= F(15) \times 250 + 7 \\152508 &= F(15) \times 250 + 8 \\152509 &= F(15) \times 250 + 9.\end{aligned}$$

$$\begin{aligned}156260 &= (1 + 5^6) \times (2 + F(6)) + 0 \\156261 &= (1 + 5^6) \times (2 + F(6)) + 1 \\156262 &= (1 + 5^6) \times (2 + F(6)) + 2 \\156263 &= (1 + 5^6) \times (2 + F(6)) + 3 \\156264 &= (1 + 5^6) \times (2 + F(6)) + 4 \\156265 &= (1 + 5^6) \times (2 + F(6)) + 5 \\156266 &= (1 + 5^6) \times (2 + F(6)) + 6 \\156267 &= (1 + 5^6) \times (2 + F(6)) + 7 \\156268 &= (1 + 5^6) \times (2 + F(6)) + 8 \\156269 &= (1 + 5^6) \times (2 + F(6)) + 9.\end{aligned}$$

$$\begin{aligned}163850 &= (-1 + 6) \times (F(3) + 8^5) + 0 \\163851 &= (-1 + 6) \times (F(3) + 8^5) + 1 \\163852 &= (-1 + 6) \times (F(3) + 8^5) + 2 \\163853 &= (-1 + 6) \times (F(3) + 8^5) + 3 \\163854 &= (-1 + 6) \times (F(3) + 8^5) + 4 \\163855 &= (-1 + 6) \times (F(3) + 8^5) + 5 \\163856 &= (-1 + 6) \times (F(3) + 8^5) + 6 \\163857 &= (-1 + 6) \times (F(3) + 8^5) + 7 \\163858 &= (-1 + 6) \times (F(3) + 8^5) + 8 \\163859 &= (-1 + 6) \times (F(3) + 8^5) + 9.\end{aligned}$$

$$\begin{aligned}168920 &= -1 + (F(6 + 8) + F(9))^2 + 0 \\168921 &= -1 + (F(6 + 8) + F(9))^2 + 1 \\168922 &= -1 + (F(6 + 8) + F(9))^2 + 2 \\168923 &= -1 + (F(6 + 8) + F(9))^2 + 3 \\168924 &= -1 + (F(6 + 8) + F(9))^2 + 4 \\168925 &= -1 + (F(6 + 8) + F(9))^2 + 5 \\168926 &= -1 + (F(6 + 8) + F(9))^2 + 6 \\168927 &= -1 + (F(6 + 8) + F(9))^2 + 7 \\168928 &= -1 + (F(6 + 8) + F(9))^2 + 8 \\168929 &= -1 + (F(6 + 8) + F(9))^2 + 9.\end{aligned}$$

$$\begin{aligned}175630 &= 1 + F(7) + 56^3 + 0 \\175631 &= 1 + F(7) + 56^3 + 1 \\175632 &= 1 + F(7) + 56^3 + 2 \\175633 &= 1 + F(7) + 56^3 + 3 \\175634 &= 1 + F(7) + 56^3 + 4 \\175635 &= 1 + F(7) + 56^3 + 5 \\175636 &= 1 + F(7) + 56^3 + 6 \\175637 &= 1 + F(7) + 56^3 + 7 \\175638 &= 1 + F(7) + 56^3 + 8 \\175639 &= 1 + F(7) + 56^3 + 9.\end{aligned}$$

$$\begin{aligned}194470 &= F(-1 + 9)^4 - 4 - 7 + 0 \\194471 &= F(-1 + 9)^4 - 4 - 7 + 1 \\194472 &= F(-1 + 9)^4 - 4 - 7 + 2 \\194473 &= F(-1 + 9)^4 - 4 - 7 + 3 \\194474 &= F(-1 + 9)^4 - 4 - 7 + 4 \\194475 &= F(-1 + 9)^4 - 4 - 7 + 5 \\194476 &= F(-1 + 9)^4 - 4 - 7 + 6 \\194477 &= F(-1 + 9)^4 - 4 - 7 + 7 \\194478 &= F(-1 + 9)^4 - 4 - 7 + 8 \\194479 &= F(-1 + 9)^4 - 4 - 7 + 9.\end{aligned}$$

$$\begin{aligned}196560 &= (1 - 9 + F(6)^5) \times 6 + 0 \\196561 &= (1 - 9 + F(6)^5) \times 6 + 1 \\196562 &= (1 - 9 + F(6)^5) \times 6 + 2 \\196563 &= (1 - 9 + F(6)^5) \times 6 + 3 \\196564 &= (1 - 9 + F(6)^5) \times 6 + 4 \\196565 &= (1 - 9 + F(6)^5) \times 6 + 5 \\196566 &= (1 - 9 + F(6)^5) \times 6 + 6 \\196567 &= (1 - 9 + F(6)^5) \times 6 + 7 \\196568 &= (1 - 9 + F(6)^5) \times 6 + 8 \\196569 &= (1 - 9 + F(6)^5) \times 6 + 9.\end{aligned}$$

$$\begin{aligned} 196830 &= (1 + 9) \times (6 + F(8))^3 + 0 \\ 196831 &= (1 + 9) \times (6 + F(8))^3 + 1 \\ 196832 &= (1 + 9) \times (6 + F(8))^3 + 2 \\ 196833 &= (1 + 9) \times (6 + F(8))^3 + 3 \\ 196834 &= (1 + 9) \times (6 + F(8))^3 + 4 \\ 196835 &= (1 + 9) \times (6 + F(8))^3 + 5 \\ 196836 &= (1 + 9) \times (6 + F(8))^3 + 6 \\ 196837 &= (1 + 9) \times (6 + F(8))^3 + 7 \\ 196838 &= (1 + 9) \times (6 + F(8))^3 + 8 \\ 196839 &= (1 + 9) \times (6 + F(8))^3 + 9. \end{aligned}$$

$$\begin{aligned} 202950 &= F(20) \times (F(2) + F(9)) - 5 + 0 \\ 202951 &= F(20) \times (F(2) + F(9)) - 5 + 1 \\ 202952 &= F(20) \times (F(2) + F(9)) - 5 + 2 \\ 202953 &= F(20) \times (F(2) + F(9)) - 5 + 3 \\ 202954 &= F(20) \times (F(2) + F(9)) - 5 + 4 \\ 202955 &= F(20) \times (F(2) + F(9)) - 5 + 5 \\ 202956 &= F(20) \times (F(2) + F(9)) - 5 + 6 \\ 202957 &= F(20) \times (F(2) + F(9)) - 5 + 7 \\ 202958 &= F(20) \times (F(2) + F(9)) - 5 + 8 \\ 202959 &= F(20) \times (F(2) + F(9)) - 5 + 9. \end{aligned}$$

$$\begin{aligned} 231840 &= F(23 + 1) \times (8 - F(4)) + 0 \\ 231841 &= F(23 + 1) \times (8 - F(4)) + 1 \\ 231842 &= F(23 + 1) \times (8 - F(4)) + 2 \\ 231843 &= F(23 + 1) \times (8 - F(4)) + 3 \\ 231844 &= F(23 + 1) \times (8 - F(4)) + 4 \\ 231845 &= F(23 + 1) \times (8 - F(4)) + 5 \\ 231846 &= F(23 + 1) \times (8 - F(4)) + 6 \\ 231847 &= F(23 + 1) \times (8 - F(4)) + 7 \\ 231848 &= F(23 + 1) \times (8 - F(4)) + 8 \\ 231849 &= F(23 + 1) \times (8 - F(4)) + 9. \end{aligned}$$

$$\begin{aligned} 233490 &= -F(23) + 3 + 4^9 + 0 \\ 233491 &= -F(23) + 3 + 4^9 + 1 \\ 233492 &= -F(23) + 3 + 4^9 + 2 \\ 233493 &= -F(23) + 3 + 4^9 + 3 \\ 233494 &= -F(23) + 3 + 4^9 + 4 \\ 233495 &= -F(23) + 3 + 4^9 + 5 \\ 233496 &= -F(23) + 3 + 4^9 + 6 \\ 233497 &= -F(23) + 3 + 4^9 + 7 \\ 233498 &= -F(23) + 3 + 4^9 + 8 \\ 233499 &= -F(23) + 3 + 4^9 + 9. \end{aligned}$$

$$\begin{aligned} 278290 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 0 \\ 278291 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 1 \\ 278292 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 2 \\ 278293 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 3 \\ 278294 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 4 \\ 278295 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 5 \\ 278296 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 6 \\ 278297 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 7 \\ 278298 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 8 \\ 278299 &= (2^{F(7)} - 8 + F(2)) \times F(9) + 9. \end{aligned}$$

$$\begin{aligned} 238330 &= (-F(2) + 3 \times F(8))^3 + F(3) + 0 \\ 238331 &= (-F(2) + 3 \times F(8))^3 + F(3) + 1 \\ 238332 &= (-F(2) + 3 \times F(8))^3 + F(3) + 2 \\ 238333 &= (-F(2) + 3 \times F(8))^3 + F(3) + 3 \\ 238334 &= (-F(2) + 3 \times F(8))^3 + F(3) + 4 \\ 238335 &= (-F(2) + 3 \times F(8))^3 + F(3) + 5 \\ 238336 &= (-F(2) + 3 \times F(8))^3 + F(3) + 6 \\ 238337 &= (-F(2) + 3 \times F(8))^3 + F(3) + 7 \\ 238338 &= (-F(2) + 3 \times F(8))^3 + F(3) + 8 \\ 238339 &= (-F(2) + 3 \times F(8))^3 + F(3) + 9. \end{aligned}$$

$$\begin{aligned} 279840 &= -F(2) + (-7 + 9 + F(8))^4 + 0 \\ 279841 &= -F(2) + (-7 + 9 + F(8))^4 + 1 \\ 279842 &= -F(2) + (-7 + 9 + F(8))^4 + 2 \\ 279843 &= -F(2) + (-7 + 9 + F(8))^4 + 3 \\ 279844 &= -F(2) + (-7 + 9 + F(8))^4 + 4 \\ 279845 &= -F(2) + (-7 + 9 + F(8))^4 + 5 \\ 279846 &= -F(2) + (-7 + 9 + F(8))^4 + 6 \\ 279847 &= -F(2) + (-7 + 9 + F(8))^4 + 7 \\ 279848 &= -F(2) + (-7 + 9 + F(8))^4 + 8 \\ 279849 &= -F(2) + (-7 + 9 + F(8))^4 + 9. \end{aligned}$$

$$\begin{aligned} 279990 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 0 \\ 279991 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 1 \\ 279992 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 2 \\ 279993 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 3 \\ 279994 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 4 \\ 279995 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 5 \\ 279996 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 6 \\ 279997 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 7 \\ 279998 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 8 \\ 279999 &= (2^{F(7)} + 9 + F(9)) \times F(9) + 9. \end{aligned}$$

$$\begin{aligned} 295240 &= (-F(2) + 9^5) \times (2 + F(4)) + 0 \\ 295241 &= (-F(2) + 9^5) \times (2 + F(4)) + 1 \\ 295242 &= (-F(2) + 9^5) \times (2 + F(4)) + 2 \\ 295243 &= (-F(2) + 9^5) \times (2 + F(4)) + 3 \\ 295244 &= (-F(2) + 9^5) \times (2 + F(4)) + 4 \\ 295245 &= (-F(2) + 9^5) \times (2 + F(4)) + 5 \\ 295246 &= (-F(2) + 9^5) \times (2 + F(4)) + 6 \\ 295247 &= (-F(2) + 9^5) \times (2 + F(4)) + 7 \\ 295248 &= (-F(2) + 9^5) \times (2 + F(4)) + 8 \\ 295249 &= (-F(2) + 9^5) \times (2 + F(4)) + 9. \end{aligned}$$

$$\begin{aligned} 295250 &= (-F(2) + 9^5 + 2) \times 5 + 0 \\ 295251 &= (-F(2) + 9^5 + 2) \times 5 + 1 \\ 295252 &= (-F(2) + 9^5 + 2) \times 5 + 2 \\ 295253 &= (-F(2) + 9^5 + 2) \times 5 + 3 \\ 295254 &= (-F(2) + 9^5 + 2) \times 5 + 4 \\ 295255 &= (-F(2) + 9^5 + 2) \times 5 + 5 \\ 295256 &= (-F(2) + 9^5 + 2) \times 5 + 6 \\ 295257 &= (-F(2) + 9^5 + 2) \times 5 + 7 \\ 295258 &= (-F(2) + 9^5 + 2) \times 5 + 8 \\ 295259 &= (-F(2) + 9^5 + 2) \times 5 + 9. \end{aligned}$$

$$\begin{aligned} 327560 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 0 \\ 327561 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 1 \\ 327562 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 2 \\ 327563 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 3 \\ 327564 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 4 \\ 327565 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 5 \\ 327566 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 6 \\ 327567 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 7 \\ 327568 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 8 \\ 327569 &= (-3 + 2^{F(7)}) \times 5 \times F(6) + 9. \end{aligned}$$

$$\begin{aligned} 365470 &= -F(3) + 6^5 \times 47 + 0 \\ 365471 &= -F(3) + 6^5 \times 47 + 1 \\ 365472 &= -F(3) + 6^5 \times 47 + 2 \\ 365473 &= -F(3) + 6^5 \times 47 + 3 \\ 365474 &= -F(3) + 6^5 \times 47 + 4 \\ 365475 &= -F(3) + 6^5 \times 47 + 5 \\ 365476 &= -F(3) + 6^5 \times 47 + 6 \\ 365477 &= -F(3) + 6^5 \times 47 + 7 \\ 365478 &= -F(3) + 6^5 \times 47 + 8 \\ 365479 &= -F(3) + 6^5 \times 47 + 9. \end{aligned}$$

$$\begin{aligned} 372190 &= F(3) \times F(7) + F(21) \times F(9) + 0 \\ 372191 &= F(3) \times F(7) + F(21) \times F(9) + 1 \\ 372192 &= F(3) \times F(7) + F(21) \times F(9) + 2 \\ 372193 &= F(3) \times F(7) + F(21) \times F(9) + 3 \\ 372194 &= F(3) \times F(7) + F(21) \times F(9) + 4 \\ 372195 &= F(3) \times F(7) + F(21) \times F(9) + 5 \\ 372196 &= F(3) \times F(7) + F(21) \times F(9) + 6 \\ 372197 &= F(3) \times F(7) + F(21) \times F(9) + 7 \\ 372198 &= F(3) \times F(7) + F(21) \times F(9) + 8 \\ 372199 &= F(3) \times F(7) + F(21) \times F(9) + 9. \end{aligned}$$

$$\begin{aligned} 372370 &= -F(3) + (-F(7) + F(23)) \times F(7) + 0 \\ 372371 &= -F(3) + (-F(7) + F(23)) \times F(7) + 1 \\ 372372 &= -F(3) + (-F(7) + F(23)) \times F(7) + 2 \\ 372373 &= -F(3) + (-F(7) + F(23)) \times F(7) + 3 \\ 372374 &= -F(3) + (-F(7) + F(23)) \times F(7) + 4 \\ 372375 &= -F(3) + (-F(7) + F(23)) \times F(7) + 5 \\ 372376 &= -F(3) + (-F(7) + F(23)) \times F(7) + 6 \\ 372377 &= -F(3) + (-F(7) + F(23)) \times F(7) + 7 \\ 372378 &= -F(3) + (-F(7) + F(23)) \times F(7) + 8 \\ 372379 &= -F(3) + (-F(7) + F(23)) \times F(7) + 9. \end{aligned}$$

$$\begin{aligned} 392760 &= F(3 \times 9) \times 2 - 76 + 0 \\ 392761 &= F(3 \times 9) \times 2 - 76 + 1 \\ 392762 &= F(3 \times 9) \times 2 - 76 + 2 \\ 392763 &= F(3 \times 9) \times 2 - 76 + 3 \\ 392764 &= F(3 \times 9) \times 2 - 76 + 4 \\ 392765 &= F(3 \times 9) \times 2 - 76 + 5 \\ 392766 &= F(3 \times 9) \times 2 - 76 + 6 \\ 392767 &= F(3 \times 9) \times 2 - 76 + 7 \\ 392768 &= F(3 \times 9) \times 2 - 76 + 8 \\ 392769 &= F(3 \times 9) \times 2 - 76 + 9. \end{aligned}$$

$$\begin{aligned} 393660 &= 3^9 \times (F(3) \times 6 + F(6)) + 0 \\ 393661 &= 3^9 \times (F(3) \times 6 + F(6)) + 1 \\ 393662 &= 3^9 \times (F(3) \times 6 + F(6)) + 2 \\ 393663 &= 3^9 \times (F(3) \times 6 + F(6)) + 3 \\ 393664 &= 3^9 \times (F(3) \times 6 + F(6)) + 4 \\ 393665 &= 3^9 \times (F(3) \times 6 + F(6)) + 5 \\ 393666 &= 3^9 \times (F(3) \times 6 + F(6)) + 6 \\ 393667 &= 3^9 \times (F(3) \times 6 + F(6)) + 7 \\ 393668 &= 3^9 \times (F(3) \times 6 + F(6)) + 8 \\ 393669 &= 3^9 \times (F(3) \times 6 + F(6)) + 9. \end{aligned}$$

$$\begin{aligned} 416020 &= F((4+1) \times 6)/02 + 0 \\ 416021 &= F((4+1) \times 6)/02 + 1 \\ 416022 &= F((4+1) \times 6)/02 + 2 \\ 416023 &= F((4+1) \times 6)/02 + 3 \\ 416024 &= F((4+1) \times 6)/02 + 4 \\ 416025 &= F((4+1) \times 6)/02 + 5 \\ 416026 &= F((4+1) \times 6)/02 + 6 \\ 416027 &= F((4+1) \times 6)/02 + 7 \\ 416028 &= F((4+1) \times 6)/02 + 8 \\ 416029 &= F((4+1) \times 6)/02 + 9. \end{aligned}$$

$$\begin{aligned} 470680 &= 4 \times (7^{06} + F(8)) + 0 \\ 470681 &= 4 \times (7^{06} + F(8)) + 1 \\ 470682 &= 4 \times (7^{06} + F(8)) + 2 \\ 470683 &= 4 \times (7^{06} + F(8)) + 3 \\ 470684 &= 4 \times (7^{06} + F(8)) + 4 \\ 470685 &= 4 \times (7^{06} + F(8)) + 5 \\ 470686 &= 4 \times (7^{06} + F(8)) + 6 \\ 470687 &= 4 \times (7^{06} + F(8)) + 7 \\ 470688 &= 4 \times (7^{06} + F(8)) + 8 \\ 470689 &= 4 \times (7^{06} + F(8)) + 9. \end{aligned}$$

$$\begin{aligned} 524880 &= 5 \times 2 \times F(4)^8 \times 8 + 0 \\ 524881 &= 5 \times 2 \times F(4)^8 \times 8 + 1 \\ 524882 &= 5 \times 2 \times F(4)^8 \times 8 + 2 \\ 524883 &= 5 \times 2 \times F(4)^8 \times 8 + 3 \\ 524884 &= 5 \times 2 \times F(4)^8 \times 8 + 4 \\ 524885 &= 5 \times 2 \times F(4)^8 \times 8 + 5 \\ 524886 &= 5 \times 2 \times F(4)^8 \times 8 + 6 \\ 524887 &= 5 \times 2 \times F(4)^8 \times 8 + 7 \\ 524888 &= 5 \times 2 \times F(4)^8 \times 8 + 8 \\ 524889 &= 5 \times 2 \times F(4)^8 \times 8 + 9. \end{aligned}$$

$$\begin{aligned} 557370 &= -5 + (5 \times 7)^3 \times F(7) + 0 \\ 557371 &= -5 + (5 \times 7)^3 \times F(7) + 1 \\ 557372 &= -5 + (5 \times 7)^3 \times F(7) + 2 \\ 557373 &= -5 + (5 \times 7)^3 \times F(7) + 3 \\ 557374 &= -5 + (5 \times 7)^3 \times F(7) + 4 \\ 557375 &= -5 + (5 \times 7)^3 \times F(7) + 5 \\ 557376 &= -5 + (5 \times 7)^3 \times F(7) + 6 \\ 557377 &= -5 + (5 \times 7)^3 \times F(7) + 7 \\ 557378 &= -5 + (5 \times 7)^3 \times F(7) + 8 \\ 557379 &= -5 + (5 \times 7)^3 \times F(7) + 9. \end{aligned}$$

$$\begin{aligned} 589440 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 0 \\ 589441 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 1 \\ 589442 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 2 \\ 589443 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 3 \\ 589444 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 4 \\ 589445 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 5 \\ 589446 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 6 \\ 589447 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 7 \\ 589448 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 8 \\ 589449 &= 5 \times (-8 + F(9)^{F(4)}) \times F(4) + 9. \end{aligned}$$

$$\begin{aligned} 593190 &= (5 + F(9))^3 \times (1 + 9) + 0 \\ 593191 &= (5 + F(9))^3 \times (1 + 9) + 1 \\ 593192 &= (5 + F(9))^3 \times (1 + 9) + 2 \\ 593193 &= (5 + F(9))^3 \times (1 + 9) + 3 \\ 593194 &= (5 + F(9))^3 \times (1 + 9) + 4 \\ 593195 &= (5 + F(9))^3 \times (1 + 9) + 5 \\ 593196 &= (5 + F(9))^3 \times (1 + 9) + 6 \\ 593197 &= (5 + F(9))^3 \times (1 + 9) + 7 \\ 593198 &= (5 + F(9))^3 \times (1 + 9) + 8 \\ 593199 &= (5 + F(9))^3 \times (1 + 9) + 9. \end{aligned}$$

$$\begin{aligned} 638640 &= F(6 \times 3) + 86^{F(4)} + 0 \\ 638641 &= F(6 \times 3) + 86^{F(4)} + 1 \\ 638642 &= F(6 \times 3) + 86^{F(4)} + 2 \\ 638643 &= F(6 \times 3) + 86^{F(4)} + 3 \\ 638644 &= F(6 \times 3) + 86^{F(4)} + 4 \\ 638645 &= F(6 \times 3) + 86^{F(4)} + 5 \\ 638646 &= F(6 \times 3) + 86^{F(4)} + 6 \\ 638647 &= F(6 \times 3) + 86^{F(4)} + 7 \\ 638648 &= F(6 \times 3) + 86^{F(4)} + 8 \\ 638649 &= F(6 \times 3) + 86^{F(4)} + 9. \end{aligned}$$

$$\begin{aligned} 655360 &= F(6)^5 \times 5/F(3) \times F(6) + 0 \\ 655361 &= F(6)^5 \times 5/F(3) \times F(6) + 1 \\ 655362 &= F(6)^5 \times 5/F(3) \times F(6) + 2 \\ 655363 &= F(6)^5 \times 5/F(3) \times F(6) + 3 \\ 655364 &= F(6)^5 \times 5/F(3) \times F(6) + 4 \\ 655365 &= F(6)^5 \times 5/F(3) \times F(6) + 5 \\ 655366 &= F(6)^5 \times 5/F(3) \times F(6) + 6 \\ 655367 &= F(6)^5 \times 5/F(3) \times F(6) + 7 \\ 655368 &= F(6)^5 \times 5/F(3) \times F(6) + 8 \\ 655369 &= F(6)^5 \times 5/F(3) \times F(6) + 9. \end{aligned}$$

$$\begin{aligned} 747740 &= (-7 + F(4)^7) \times 7^{F(4)} + 0 \\ 747741 &= (-7 + F(4)^7) \times 7^{F(4)} + 1 \\ 747742 &= (-7 + F(4)^7) \times 7^{F(4)} + 2 \\ 747743 &= (-7 + F(4)^7) \times 7^{F(4)} + 3 \\ 747744 &= (-7 + F(4)^7) \times 7^{F(4)} + 4 \\ 747745 &= (-7 + F(4)^7) \times 7^{F(4)} + 5 \\ 747746 &= (-7 + F(4)^7) \times 7^{F(4)} + 6 \\ 747747 &= (-7 + F(4)^7) \times 7^{F(4)} + 7 \\ 747748 &= (-7 + F(4)^7) \times 7^{F(4)} + 8 \\ 747749 &= (-7 + F(4)^7) \times 7^{F(4)} + 9. \end{aligned}$$

$$\begin{aligned} 841300 &= F(8)^{F(4)} - 1 + F(30) + 0 \\ 841301 &= F(8)^{F(4)} - 1 + F(30) + 1 \\ 841302 &= F(8)^{F(4)} - 1 + F(30) + 2 \\ 841303 &= F(8)^{F(4)} - 1 + F(30) + 3 \\ 841304 &= F(8)^{F(4)} - 1 + F(30) + 4 \\ 841305 &= F(8)^{F(4)} - 1 + F(30) + 5 \\ 841306 &= F(8)^{F(4)} - 1 + F(30) + 6 \\ 841307 &= F(8)^{F(4)} - 1 + F(30) + 7 \\ 841308 &= F(8)^{F(4)} - 1 + F(30) + 8 \\ 841309 &= F(8)^{F(4)} - 1 + F(30) + 9. \end{aligned}$$

$$\begin{aligned} 786410 &= (-7 + 8^6) \times F(4) - 1 + 0 \\ 786411 &= (-7 + 8^6) \times F(4) - 1 + 1 \\ 786412 &= (-7 + 8^6) \times F(4) - 1 + 2 \\ 786413 &= (-7 + 8^6) \times F(4) - 1 + 3 \\ 786414 &= (-7 + 8^6) \times F(4) - 1 + 4 \\ 786415 &= (-7 + 8^6) \times F(4) - 1 + 5 \\ 786416 &= (-7 + 8^6) \times F(4) - 1 + 6 \\ 786417 &= (-7 + 8^6) \times F(4) - 1 + 7 \\ 786418 &= (-7 + 8^6) \times F(4) - 1 + 8 \\ 786419 &= (-7 + 8^6) \times F(4) - 1 + 9. \end{aligned}$$

$$\begin{aligned} 896700 &= F(8) \times F(9+6) \times 70 + 0 \\ 896701 &= F(8) \times F(9+6) \times 70 + 1 \\ 896702 &= F(8) \times F(9+6) \times 70 + 2 \\ 896703 &= F(8) \times F(9+6) \times 70 + 3 \\ 896704 &= F(8) \times F(9+6) \times 70 + 4 \\ 896705 &= F(8) \times F(9+6) \times 70 + 5 \\ 896706 &= F(8) \times F(9+6) \times 70 + 6 \\ 896707 &= F(8) \times F(9+6) \times 70 + 7 \\ 896708 &= F(8) \times F(9+6) \times 70 + 8 \\ 896709 &= F(8) \times F(9+6) \times 70 + 9. \end{aligned}$$

$$\begin{aligned} 786450 &= F(7) + 8^6 \times F(4) + 5 + 0 \\ 786451 &= F(7) + 8^6 \times F(4) + 5 + 1 \\ 786452 &= F(7) + 8^6 \times F(4) + 5 + 2 \\ 786453 &= F(7) + 8^6 \times F(4) + 5 + 3 \\ 786454 &= F(7) + 8^6 \times F(4) + 5 + 4 \\ 786455 &= F(7) + 8^6 \times F(4) + 5 + 5 \\ 786456 &= F(7) + 8^6 \times F(4) + 5 + 6 \\ 786457 &= F(7) + 8^6 \times F(4) + 5 + 7 \\ 786458 &= F(7) + 8^6 \times F(4) + 5 + 8 \\ 786459 &= F(7) + 8^6 \times F(4) + 5 + 9. \end{aligned}$$

$$\begin{aligned} 920040 &= F(9) \times F(20) \times 04 + 0 \\ 920041 &= F(9) \times F(20) \times 04 + 1 \\ 920042 &= F(9) \times F(20) \times 04 + 2 \\ 920043 &= F(9) \times F(20) \times 04 + 3 \\ 920044 &= F(9) \times F(20) \times 04 + 4 \\ 920045 &= F(9) \times F(20) \times 04 + 5 \\ 920046 &= F(9) \times F(20) \times 04 + 6 \\ 920047 &= F(9) \times F(20) \times 04 + 7 \\ 920048 &= F(9) \times F(20) \times 04 + 8 \\ 920049 &= F(9) \times F(20) \times 04 + 9. \end{aligned}$$

$$\begin{aligned} 833490 &= F(8)^3 \times (3^4 + 9) + 0 \\ 833491 &= F(8)^3 \times (3^4 + 9) + 1 \\ 833492 &= F(8)^3 \times (3^4 + 9) + 2 \\ 833493 &= F(8)^3 \times (3^4 + 9) + 3 \\ 833494 &= F(8)^3 \times (3^4 + 9) + 4 \\ 833495 &= F(8)^3 \times (3^4 + 9) + 5 \\ 833496 &= F(8)^3 \times (3^4 + 9) + 6 \\ 833497 &= F(8)^3 \times (3^4 + 9) + 7 \\ 833498 &= F(8)^3 \times (3^4 + 9) + 8 \\ 833499 &= F(8)^3 \times (3^4 + 9) + 9. \end{aligned}$$

$$\begin{aligned} 943280 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 0 \\ 943281 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 1 \\ 943282 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 2 \\ 943283 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 3 \\ 943284 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 4 \\ 943285 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 5 \\ 943286 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 6 \\ 943287 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 7 \\ 943288 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 8 \\ 943289 &= (F(9)^{F(4)} \times 3 - 2) \times 8 + 9. \end{aligned}$$

$$\begin{aligned} 972740 &= F(9) \times (7^2 + F(7)^4) + 0 \\ 972741 &= F(9) \times (7^2 + F(7)^4) + 1 \\ 972742 &= F(9) \times (7^2 + F(7)^4) + 2 \\ 972743 &= F(9) \times (7^2 + F(7)^4) + 3 \\ 972744 &= F(9) \times (7^2 + F(7)^4) + 4 \\ 972745 &= F(9) \times (7^2 + F(7)^4) + 5 \\ 972746 &= F(9) \times (7^2 + F(7)^4) + 6 \\ 972747 &= F(9) \times (7^2 + F(7)^4) + 7 \\ 972748 &= F(9) \times (7^2 + F(7)^4) + 8 \\ 972749 &= F(9) \times (7^2 + F(7)^4) + 9. \end{aligned}$$

$$\begin{aligned} 973980 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 0 \\ 973981 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 1 \\ 973982 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 2 \\ 973983 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 3 \\ 973984 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 4 \\ 973985 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 5 \\ 973986 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 6 \\ 973987 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 7 \\ 973988 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 8 \\ 973989 &= F(9 + 7)^{F(3)} - 9 \times F(8) + 9. \end{aligned}$$

3.3 Symmetric Representations in Reverse Order of Digits

Below are examples of numbers written in reverse order of digits:

$$\begin{aligned} 39270 &= 0 - F(7 + 2) + F(9)^3 \\ 39271 &= 1 - F(7 + 2) + F(9)^3 \\ 39272 &= 2 - F(7 + 2) + F(9)^3 \\ 39273 &= 3 - F(7 + 2) + F(9)^3 \\ 39274 &= 4 - F(7 + 2) + F(9)^3 \\ 39275 &= 5 - F(7 + 2) + F(9)^3 \\ 39276 &= 6 - F(7 + 2) + F(9)^3 \\ 39277 &= 7 - F(7 + 2) + F(9)^3 \\ 39278 &= 8 - F(7 + 2) + F(9)^3 \\ 39279 &= 9 - F(7 + 2) + F(9)^3. \end{aligned}$$

$$\begin{aligned} 74290 &= 0 + F(9) \times (-2 + F(4)^7) \\ 74291 &= 1 + F(9) \times (-2 + F(4)^7) \\ 74292 &= 2 + F(9) \times (-2 + F(4)^7) \\ 74293 &= 3 + F(9) \times (-2 + F(4)^7) \\ 74294 &= 4 + F(9) \times (-2 + F(4)^7) \\ 74295 &= 5 + F(9) \times (-2 + F(4)^7) \\ 74296 &= 6 + F(9) \times (-2 + F(4)^7) \\ 74297 &= 7 + F(9) \times (-2 + F(4)^7) \\ 74298 &= 8 + F(9) \times (-2 + F(4)^7) \\ 74299 &= 9 + F(9) \times (-2 + F(4)^7). \end{aligned}$$

$$\begin{aligned} 46690 &= 0 + F(9) + (6 \times 6)^{F(4)} \\ 46691 &= 1 + F(9) + (6 \times 6)^{F(4)} \\ 46692 &= 2 + F(9) + (6 \times 6)^{F(4)} \\ 46693 &= 3 + F(9) + (6 \times 6)^{F(4)} \\ 46694 &= 4 + F(9) + (6 \times 6)^{F(4)} \\ 46695 &= 5 + F(9) + (6 \times 6)^{F(4)} \\ 46696 &= 6 + F(9) + (6 \times 6)^{F(4)} \\ 46697 &= 7 + F(9) + (6 \times 6)^{F(4)} \\ 46698 &= 8 + F(9) + (6 \times 6)^{F(4)} \\ 46699 &= 9 + F(9) + (6 \times 6)^{F(4)}. \end{aligned}$$

$$\begin{aligned} 112640 &= 0 + F(4 + 6) \times 2^{11} \\ 112641 &= 1 + F(4 + 6) \times 2^{11} \\ 112642 &= 2 + F(4 + 6) \times 2^{11} \\ 112643 &= 3 + F(4 + 6) \times 2^{11} \\ 112644 &= 4 + F(4 + 6) \times 2^{11} \\ 112645 &= 5 + F(4 + 6) \times 2^{11} \\ 112646 &= 6 + F(4 + 6) \times 2^{11} \\ 112647 &= 7 + F(4 + 6) \times 2^{11} \\ 112648 &= 8 + F(4 + 6) \times 2^{11} \\ 112649 &= 9 + F(4 + 6) \times 2^{11}. \end{aligned}$$

$$\begin{aligned} 117670 &= 0 + 7^6 + F(7+1) \times 1 \\ 117671 &= 1 + 7^6 + F(7+1) \times 1 \\ 117672 &= 2 + 7^6 + F(7+1) \times 1 \\ 117673 &= 3 + 7^6 + F(7+1) \times 1 \\ 117674 &= 4 + 7^6 + F(7+1) \times 1 \\ 117675 &= 5 + 7^6 + F(7+1) \times 1 \\ 117676 &= 6 + 7^6 + F(7+1) \times 1 \\ 117677 &= 7 + 7^6 + F(7+1) \times 1 \\ 117678 &= 8 + 7^6 + F(7+1) \times 1 \\ 117679 &= 9 + 7^6 + F(7+1) \times 1. \end{aligned}$$

$$\begin{aligned} 274980 &= 0 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274981 &= 1 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274982 &= 2 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274983 &= 3 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274984 &= 4 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274985 &= 5 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274986 &= 6 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274987 &= 7 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274988 &= 8 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2) \\ 274989 &= 9 + (-F(8) + F(9)^{F(4)}) \times 7 - F(2). \end{aligned}$$

$$\begin{aligned} 212280 &= 0 + (-F(8) + F(22)) \times 12 \\ 212281 &= 1 + (-F(8) + F(22)) \times 12 \\ 212282 &= 2 + (-F(8) + F(22)) \times 12 \\ 212283 &= 3 + (-F(8) + F(22)) \times 12 \\ 212284 &= 4 + (-F(8) + F(22)) \times 12 \\ 212285 &= 5 + (-F(8) + F(22)) \times 12 \\ 212286 &= 6 + (-F(8) + F(22)) \times 12 \\ 212287 &= 7 + (-F(8) + F(22)) \times 12 \\ 212288 &= 8 + (-F(8) + F(22)) \times 12 \\ 212289 &= 9 + (-F(8) + F(22)) \times 12. \end{aligned}$$

$$\begin{aligned} 297440 &= 0 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297441 &= 1 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297442 &= 2 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297443 &= 3 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297444 &= 4 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297445 &= 5 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297446 &= 6 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297447 &= 7 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297448 &= 8 + 4 \times (F(4)^7 \times F(9) + 2) \\ 297449 &= 9 + 4 \times (F(4)^7 \times F(9) + 2). \end{aligned}$$

$$\begin{aligned} 270400 &= 00 + (40 \times F(7))^2 \\ 270401 &= 10 + (40 \times F(7))^2 \\ 270402 &= 20 + (40 \times F(7))^2 \\ 270403 &= 30 + (40 \times F(7))^2 \\ 270404 &= 40 + (40 \times F(7))^2 \\ 270405 &= 50 + (40 \times F(7))^2 \\ 270406 &= 60 + (40 \times F(7))^2 \\ 270407 &= 70 + (40 \times F(7))^2 \\ 270408 &= 80 + (40 \times F(7))^2 \\ 270409 &= 90 + (40 \times F(7))^2. \end{aligned}$$

$$\begin{aligned} 317810 &= 0 - 1 + F(8 + 7 + 13) \\ 317811 &= 1 - 1 + F(8 + 7 + 13) \\ 317812 &= 2 - 1 + F(8 + 7 + 13) \\ 317813 &= 3 - 1 + F(8 + 7 + 13) \\ 317814 &= 4 - 1 + F(8 + 7 + 13) \\ 317815 &= 5 - 1 + F(8 + 7 + 13) \\ 317816 &= 6 - 1 + F(8 + 7 + 13) \\ 317817 &= 7 - 1 + F(8 + 7 + 13) \\ 317818 &= 8 - 1 + F(8 + 7 + 13) \\ 317819 &= 9 - 1 + F(8 + 7 + 13). \end{aligned}$$

$$\begin{aligned} 270411 &= 11 + (40 \times F(7))^2 \\ 270422 &= 22 + (40 \times F(7))^2 \\ 270433 &= 33 + (40 \times F(7))^2 \\ 270444 &= 44 + (40 \times F(7))^2 \\ 270455 &= 55 + (40 \times F(7))^2 \\ 270466 &= 66 + (40 \times F(7))^2 \\ 270477 &= 77 + (40 \times F(7))^2 \\ 270488 &= 88 + (40 \times F(7))^2 \\ 270499 &= 99 + (40 \times F(7))^2. \end{aligned}$$

$$\begin{aligned} 332750 &= 0 + (57 - 2)^3 \times F(3) \\ 332751 &= 1 + (57 - 2)^3 \times F(3) \\ 332752 &= 2 + (57 - 2)^3 \times F(3) \\ 332753 &= 3 + (57 - 2)^3 \times F(3) \\ 332754 &= 4 + (57 - 2)^3 \times F(3) \\ 332755 &= 5 + (57 - 2)^3 \times F(3) \\ 332756 &= 6 + (57 - 2)^3 \times F(3) \\ 332757 &= 7 + (57 - 2)^3 \times F(3) \\ 332758 &= 8 + (57 - 2)^3 \times F(3) \\ 332759 &= 9 + (57 - 2)^3 \times F(3). \end{aligned}$$

$$\begin{aligned} 372100 &= 0 + F(01 + 2 \times 7)^{F(3)} \\ 372100 &= 00 + F(1 + 2 \times 7)^{F(3)} \\ 372101 &= 1 + F(01 + 2 \times 7)^{F(3)} \\ 372102 &= 2 + F(01 + 2 \times 7)^{F(3)} \\ 372103 &= 3 + F(01 + 2 \times 7)^{F(3)} \\ 372104 &= 4 + F(01 + 2 \times 7)^{F(3)} \\ 372105 &= 5 + F(01 + 2 \times 7)^{F(3)} \\ 372106 &= 6 + F(01 + 2 \times 7)^{F(3)} \\ 372107 &= 7 + F(01 + 2 \times 7)^{F(3)} \\ 372108 &= 8 + F(01 + 2 \times 7)^{F(3)} \\ 372109 &= 9 + F(01 + 2 \times 7)^{F(3)}. \end{aligned}$$

$$\begin{aligned} 372111 &= 11 + F(1 + 2 \times 7)^{F(3)} \\ 372122 &= 22 + F(1 + 2 \times 7)^{F(3)} \\ 372133 &= 33 + F(1 + 2 \times 7)^{F(3)} \\ 372144 &= 44 + F(1 + 2 \times 7)^{F(3)} \\ 372155 &= 55 + F(1 + 2 \times 7)^{F(3)} \\ 372166 &= 66 + F(1 + 2 \times 7)^{F(3)} \\ 372177 &= 77 + F(1 + 2 \times 7)^{F(3)} \\ 372188 &= 88 + F(1 + 2 \times 7)^{F(3)} \\ 372199 &= 99 + F(1 + 2 \times 7)^{F(3)}. \end{aligned}$$

$$\begin{aligned} 373490 &= 0 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373491 &= 1 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373492 &= 2 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373493 &= 3 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373494 &= 4 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373495 &= 5 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373496 &= 6 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373497 &= 7 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373498 &= 8 + F(9) \times (F(4) + F(3)) \times F(7)^3 \\ 373499 &= 9 + F(9) \times (F(4) + F(3)) \times F(7)^3. \end{aligned}$$

$$\begin{aligned} 374540 &= 0 - 4 + (5^4 - F(7))^{F(3)} \\ 374541 &= 1 - 4 + (5^4 - F(7))^{F(3)} \\ 374542 &= 2 - 4 + (5^4 - F(7))^{F(3)} \\ 374543 &= 3 - 4 + (5^4 - F(7))^{F(3)} \\ 374544 &= 4 - 4 + (5^4 - F(7))^{F(3)} \\ 374545 &= 5 - 4 + (5^4 - F(7))^{F(3)} \\ 374546 &= 6 - 4 + (5^4 - F(7))^{F(3)} \\ 374547 &= 7 - 4 + (5^4 - F(7))^{F(3)} \\ 374548 &= 8 - 4 + (5^4 - F(7))^{F(3)} \\ 374549 &= 9 - 4 + (5^4 - F(7))^{F(3)}. \end{aligned}$$

$$\begin{aligned} 391850 &= 0 + 5^8 + (1 + F(9))^{F(3)} \\ 391851 &= 1 + 5^8 + (1 + F(9))^{F(3)} \\ 391852 &= 2 + 5^8 + (1 + F(9))^{F(3)} \\ 391853 &= 3 + 5^8 + (1 + F(9))^{F(3)} \\ 391854 &= 4 + 5^8 + (1 + F(9))^{F(3)} \\ 391855 &= 5 + 5^8 + (1 + F(9))^{F(3)} \\ 391856 &= 6 + 5^8 + (1 + F(9))^{F(3)} \\ 391857 &= 7 + 5^8 + (1 + F(9))^{F(3)} \\ 391858 &= 8 + 5^8 + (1 + F(9))^{F(3)} \\ 391859 &= 9 + 5^8 + (1 + F(9))^{F(3)}. \end{aligned}$$

$$\begin{aligned} 393010 &= 0 + 10 \times (-3 + F(9)^3) \\ 393011 &= 1 + 10 \times (-3 + F(9)^3) \\ 393012 &= 2 + 10 \times (-3 + F(9)^3) \\ 393013 &= 3 + 10 \times (-3 + F(9)^3) \\ 393014 &= 4 + 10 \times (-3 + F(9)^3) \\ 393015 &= 5 + 10 \times (-3 + F(9)^3) \\ 393016 &= 6 + 10 \times (-3 + F(9)^3) \\ 393017 &= 7 + 10 \times (-3 + F(9)^3) \\ 393018 &= 8 + 10 \times (-3 + F(9)^3) \\ 393019 &= 9 + 10 \times (-3 + F(9)^3). \end{aligned}$$

$$\begin{aligned} 423740 &= 0 + (F(4 \times 7)/3 - 2) \times 4 \\ 423741 &= 1 + (F(4 \times 7)/3 - 2) \times 4 \\ 423742 &= 2 + (F(4 \times 7)/3 - 2) \times 4 \\ 423743 &= 3 + (F(4 \times 7)/3 - 2) \times 4 \\ 423744 &= 4 + (F(4 \times 7)/3 - 2) \times 4 \\ 423745 &= 5 + (F(4 \times 7)/3 - 2) \times 4 \\ 423746 &= 6 + (F(4 \times 7)/3 - 2) \times 4 \\ 423747 &= 7 + (F(4 \times 7)/3 - 2) \times 4 \\ 423748 &= 8 + (F(4 \times 7)/3 - 2) \times 4 \\ 423749 &= 9 + (F(4 \times 7)/3 - 2) \times 4. \end{aligned}$$

$$\begin{aligned} 438980 &= 0 + (F(8) + F(9) + F(8))^3 + 4 \\ 438981 &= 1 + (F(8) + F(9) + F(8))^3 + 4 \\ 438982 &= 2 + (F(8) + F(9) + F(8))^3 + 4 \\ 438983 &= 3 + (F(8) + F(9) + F(8))^3 + 4 \\ 438984 &= 4 + (F(8) + F(9) + F(8))^3 + 4 \\ 438985 &= 5 + (F(8) + F(9) + F(8))^3 + 4 \\ 438986 &= 6 + (F(8) + F(9) + F(8))^3 + 4 \\ 438987 &= 7 + (F(8) + F(9) + F(8))^3 + 4 \\ 438988 &= 8 + (F(8) + F(9) + F(8))^3 + 4 \\ 438989 &= 9 + (F(8) + F(9) + F(8))^3 + 4. \end{aligned}$$

$$\begin{aligned}458710 &= 0 + (1 + F(7)) \times (8^5 - F(4)) \\458711 &= 1 + (1 + F(7)) \times (8^5 - F(4)) \\458712 &= 2 + (1 + F(7)) \times (8^5 - F(4)) \\458713 &= 3 + (1 + F(7)) \times (8^5 - F(4)) \\458714 &= 4 + (1 + F(7)) \times (8^5 - F(4)) \\458715 &= 5 + (1 + F(7)) \times (8^5 - F(4)) \\458716 &= 6 + (1 + F(7)) \times (8^5 - F(4)) \\458717 &= 7 + (1 + F(7)) \times (8^5 - F(4)) \\458718 &= 8 + (1 + F(7)) \times (8^5 - F(4)) \\458719 &= 9 + (1 + F(7)) \times (8^5 - F(4)).\end{aligned}$$

$$\begin{aligned}465650 &= 0 + 5^{F(6)} + F(5^{6-4}) \\465651 &= 1 + 5^{F(6)} + F(5^{6-4}) \\465652 &= 2 + 5^{F(6)} + F(5^{6-4}) \\465653 &= 3 + 5^{F(6)} + F(5^{6-4}) \\465654 &= 4 + 5^{F(6)} + F(5^{6-4}) \\465655 &= 5 + 5^{F(6)} + F(5^{6-4}) \\465656 &= 6 + 5^{F(6)} + F(5^{6-4}) \\465657 &= 7 + 5^{F(6)} + F(5^{6-4}) \\465658 &= 8 + 5^{F(6)} + F(5^{6-4}) \\465659 &= 9 + 5^{F(6)} + F(5^{6-4}).\end{aligned}$$

$$\begin{aligned}477360 &= 0 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477361 &= 1 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477362 &= 2 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477363 &= 3 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477364 &= 4 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477365 &= 5 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477366 &= 6 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477367 &= 7 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477368 &= 8 + 6^3 \times (F(7) + F(7)^{F(4)}) \\477369 &= 9 + 6^3 \times (F(7) + F(7)^{F(4)}).\end{aligned}$$

$$\begin{aligned}498920 &= 0 + F(29) - F(8) \times 9^{F(4)} \\498921 &= 1 + F(29) - F(8) \times 9^{F(4)} \\498922 &= 2 + F(29) - F(8) \times 9^{F(4)} \\498923 &= 3 + F(29) - F(8) \times 9^{F(4)} \\498924 &= 4 + F(29) - F(8) \times 9^{F(4)} \\498925 &= 5 + F(29) - F(8) \times 9^{F(4)} \\498926 &= 6 + F(29) - F(8) \times 9^{F(4)} \\498927 &= 7 + F(29) - F(8) \times 9^{F(4)} \\498928 &= 8 + F(29) - F(8) \times 9^{F(4)} \\498929 &= 9 + F(29) - F(8) \times 9^{F(4)}.\end{aligned}$$

$$\begin{aligned}537790 &= 0 - F(9) + (-7 + 7 \times 3)^5 \\537791 &= 1 - F(9) + (-7 + 7 \times 3)^5 \\537792 &= 2 - F(9) + (-7 + 7 \times 3)^5 \\537793 &= 3 - F(9) + (-7 + 7 \times 3)^5 \\537794 &= 4 - F(9) + (-7 + 7 \times 3)^5 \\537795 &= 5 - F(9) + (-7 + 7 \times 3)^5 \\537796 &= 6 - F(9) + (-7 + 7 \times 3)^5 \\537797 &= 7 - F(9) + (-7 + 7 \times 3)^5 \\537798 &= 8 - F(9) + (-7 + 7 \times 3)^5 \\537799 &= 9 - F(9) + (-7 + 7 \times 3)^5.\end{aligned}$$

$$\begin{aligned}537850 &= 0 + 5 + F(8) + (7 \times F(3))^5 \\537851 &= 1 + 5 + F(8) + (7 \times F(3))^5 \\537852 &= 2 + 5 + F(8) + (7 \times F(3))^5 \\537853 &= 3 + 5 + F(8) + (7 \times F(3))^5 \\537854 &= 4 + 5 + F(8) + (7 \times F(3))^5 \\537855 &= 5 + 5 + F(8) + (7 \times F(3))^5 \\537856 &= 6 + 5 + F(8) + (7 \times F(3))^5 \\537857 &= 7 + 5 + F(8) + (7 \times F(3))^5 \\537858 &= 8 + 5 + F(8) + (7 \times F(3))^5 \\537859 &= 9 + 5 + F(8) + (7 \times F(3))^5.\end{aligned}$$

$$\begin{aligned}589840 &= 0 + 4^8 \times 9 + F(8) - 5 \\589841 &= 1 + 4^8 \times 9 + F(8) - 5 \\589842 &= 2 + 4^8 \times 9 + F(8) - 5 \\589843 &= 3 + 4^8 \times 9 + F(8) - 5 \\589844 &= 4 + 4^8 \times 9 + F(8) - 5 \\589845 &= 5 + 4^8 \times 9 + F(8) - 5 \\589846 &= 6 + 4^8 \times 9 + F(8) - 5 \\589847 &= 7 + 4^8 \times 9 + F(8) - 5 \\589848 &= 8 + 4^8 \times 9 + F(8) - 5 \\589849 &= 9 + 4^8 \times 9 + F(8) - 5.\end{aligned}$$

$$\begin{aligned}624030 &= 0 + F(30) \times F(4)/(-2 + 6) \\624031 &= 1 + F(30) \times F(4)/(-2 + 6) \\624032 &= 2 + F(30) \times F(4)/(-2 + 6) \\624033 &= 3 + F(30) \times F(4)/(-2 + 6) \\624034 &= 4 + F(30) \times F(4)/(-2 + 6) \\624035 &= 5 + F(30) \times F(4)/(-2 + 6) \\624036 &= 6 + F(30) \times F(4)/(-2 + 6) \\624037 &= 7 + F(30) \times F(4)/(-2 + 6) \\624038 &= 8 + F(30) \times F(4)/(-2 + 6) \\624039 &= 9 + F(30) \times F(4)/(-2 + 6).\end{aligned}$$

$$\begin{aligned}
742570 &= 0 + 2 \times F(7)^5 - F(4) - F(7) \\
742571 &= 1 + 2 \times F(7)^5 - F(4) - F(7) \\
742572 &= 2 + 2 \times F(7)^5 - F(4) - F(7) \\
742573 &= 3 + 2 \times F(7)^5 - F(4) - F(7) \\
742574 &= 4 + 2 \times F(7)^5 - F(4) - F(7) \\
742575 &= 5 + 2 \times F(7)^5 - F(4) - F(7) \\
742576 &= 6 + 2 \times F(7)^5 - F(4) - F(7) \\
742577 &= 7 + 2 \times F(7)^5 - F(4) - F(7) \\
742578 &= 8 + 2 \times F(7)^5 - F(4) - F(7) \\
742579 &= 9 + 2 \times F(7)^5 - F(4) - F(7).
\end{aligned}$$

$$\begin{aligned}
832030 &= 0 + F(30) - 2 \times (-3 + 8) \\
832031 &= 1 + F(30) - 2 \times (-3 + 8) \\
832032 &= 2 + F(30) - 2 \times (-3 + 8) \\
832033 &= 3 + F(30) - 2 \times (-3 + 8) \\
832034 &= 4 + F(30) - 2 \times (-3 + 8) \\
832035 &= 5 + F(30) - 2 \times (-3 + 8) \\
832036 &= 6 + F(30) - 2 \times (-3 + 8) \\
832037 &= 7 + F(30) - 2 \times (-3 + 8) \\
832038 &= 8 + F(30) - 2 \times (-3 + 8) \\
832039 &= 9 + F(30) - 2 \times (-3 + 8).
\end{aligned}$$

$$\begin{aligned}
832650 &= 0 + F(5 \times 6) + F(23 - 8) \\
832651 &= 1 + F(5 \times 6) + F(23 - 8) \\
832652 &= 2 + F(5 \times 6) + F(23 - 8) \\
832653 &= 3 + F(5 \times 6) + F(23 - 8) \\
832654 &= 4 + F(5 \times 6) + F(23 - 8) \\
832655 &= 5 + F(5 \times 6) + F(23 - 8) \\
832656 &= 6 + F(5 \times 6) + F(23 - 8) \\
832657 &= 7 + F(5 \times 6) + F(23 - 8) \\
832658 &= 8 + F(5 \times 6) + F(23 - 8) \\
832659 &= 9 + F(5 \times 6) + F(23 - 8).
\end{aligned}$$

$$\begin{aligned}
839760 &= 0 + (6^7 - 9) \times 3 - F(8) \\
839761 &= 1 + (6^7 - 9) \times 3 - F(8) \\
839762 &= 2 + (6^7 - 9) \times 3 - F(8) \\
839763 &= 3 + (6^7 - 9) \times 3 - F(8) \\
839764 &= 4 + (6^7 - 9) \times 3 - F(8) \\
839765 &= 5 + (6^7 - 9) \times 3 - F(8) \\
839766 &= 6 + (6^7 - 9) \times 3 - F(8) \\
839767 &= 7 + (6^7 - 9) \times 3 - F(8) \\
839768 &= 8 + (6^7 - 9) \times 3 - F(8) \\
839769 &= 9 + (6^7 - 9) \times 3 - F(8).
\end{aligned}$$

$$\begin{aligned}
974780 &= 0 + F(8 + 7) \times 47 \times F(9) \\
974781 &= 1 + F(8 + 7) \times 47 \times F(9) \\
974782 &= 2 + F(8 + 7) \times 47 \times F(9) \\
974783 &= 3 + F(8 + 7) \times 47 \times F(9) \\
974784 &= 4 + F(8 + 7) \times 47 \times F(9) \\
974785 &= 5 + F(8 + 7) \times 47 \times F(9) \\
974786 &= 6 + F(8 + 7) \times 47 \times F(9) \\
974787 &= 7 + F(8 + 7) \times 47 \times F(9) \\
974788 &= 8 + F(8 + 7) \times 47 \times F(9) \\
974789 &= 9 + F(8 + 7) \times 47 \times F(9).
\end{aligned}$$

4 Symmetric Representations in terms of $F(2)$, $F(3)$ and $F(4)$

In the previous section, we gave symmetric numbers as blocks of 10. Since, $F(2)=1$, $F(3)=2$ and $F(4)=3$, still we can have symmetric numbers as blocks of 3. Similar to previous section, here also we have symmetric numbers in order of digits and its reverse. There are numbers those can be written in both the ways. The work is limited upto 6 digits. These are given in subsections below.

4.1 Symmetric Representations in Both Ways

Below are symmetric numbers in $F(2)$, $F(3)$ and $F(4)$ in both ways, i.e., in digit's order and its reverse.

$$\begin{aligned}
6562 &= (F(6) - 5)^{F(6)} + F(2) = F(2) + (F(6) - 5)^{F(6)} \\
6563 &= (F(6) - 5)^{F(6)} + F(3) = F(3) + (F(6) - 5)^{F(6)} \\
6564 &= (F(6) - 5)^{F(6)} + F(4) = F(4) + (F(6) - 5)^{F(6)}.
\end{aligned}$$

$$\begin{aligned} 43772 &= 4 \times F(3 \times 7) - F(7) + F(2) = F(2) - F(7) + F(7 \times 3) \times 4 \\ 43773 &= 4 \times F(3 \times 7) - F(7) + F(3) = F(3) - F(7) + F(7 \times 3) \times 4 \\ 43774 &= 4 \times F(3 \times 7) - F(7) + F(4) = F(4) - F(7) + F(7 \times 3) \times 4. \end{aligned}$$

$$\begin{aligned} 73792 &= (7 + F(3)^{F(7)}) \times 9 + F(2) = F(2) + 9 \times (7 + F(3)^{F(7)}) \\ 73793 &= (7 + F(3)^{F(7)}) \times 9 + F(3) = F(3) + 9 \times (7 + F(3)^{F(7)}) \\ 73794 &= (7 + F(3)^{F(7)}) \times 9 + F(4) = F(4) + 9 \times (7 + F(3)^{F(7)}). \end{aligned}$$

$$\begin{aligned} 147492 &= ((1 \times 4)^7 + 4) \times 9 \times F(2) = F(2) + 9 \times (4^7 + 4) - 1 \\ 147493 &= ((1 \times 4)^7 + 4) \times 9 \times F(3) = F(3) + 9 \times (4^7 + 4) - 1 \\ 147494 &= ((1 \times 4)^7 + 4) \times 9 \times F(4) = F(4) + 9 \times (4^7 + 4) - 1. \end{aligned}$$

$$\begin{aligned} 229972 &= F(2 + 2 + 9) \times F(9 + 7) + F(2) = F(2) + F(7 + 9) \times F(9 + 2 + 2) \\ 229973 &= F(2 + 2 + 9) \times F(9 + 7) + F(3) = F(3) + F(7 + 9) \times F(9 + 2 + 2) \\ 229974 &= F(2 + 2 + 9) \times F(9 + 7) + F(4) = F(4) + F(7 + 9) \times F(9 + 2 + 2). \end{aligned}$$

$$\begin{aligned} 297382 &= (2 + 9 \times F(7))^{F(3)} \times F(8) + F(2) = F(2) + F(8) \times (F(3)^7 - 9)^2 \\ 297383 &= (2 + 9 \times F(7))^{F(3)} \times F(8) + F(3) = F(3) + F(8) \times (F(3)^7 - 9)^2 \\ 297384 &= (2 + 9 \times F(7))^{F(3)} \times F(8) + F(4) = F(4) + F(8) \times (F(3)^7 - 9)^2. \end{aligned}$$

$$\begin{aligned} 531442 &= (5 - F(3))^{(-1+4) \times 4} + F(2) = F(2) + F(4)^{4 \times 1+3+5} \\ 531443 &= (5 - F(3))^{(-1+4) \times 4} + F(3) = F(3) + F(4)^{4 \times 1+3+5} \\ 531444 &= (5 - F(3))^{(-1+4) \times 4} + F(4) = F(4) + F(4)^{4 \times 1+3+5}. \end{aligned}$$

$$\begin{aligned} 832062 &= F(8) + F((3 + 2) \times 06) + F(2) = F(2) + F(6 \times (02 + 3)) + F(8) \\ 832063 &= F(8) + F((3 + 2) \times 06) + F(3) = F(3) + F(6 \times (02 + 3)) + F(8) \\ 832064 &= F(8) + F((3 + 2) \times 06) + F(4) = F(4) + F(6 \times (02 + 3)) + F(8). \end{aligned}$$

$$\begin{aligned} 953332 &= (-F(9) + F(-5 + 33)) \times 3 + F(2) = F(2) + 3 \times (F(33 - 5) - F(9)) \\ 953333 &= (-F(9) + F(-5 + 33)) \times 3 + F(3) = F(3) + 3 \times (F(33 - 5) - F(9)) \\ 953334 &= (-F(9) + F(-5 + 33)) \times 3 + F(4) = F(4) + 3 \times (F(33 - 5) - F(9)). \end{aligned}$$

4.2 Symmetric Representations in Digit's Order

Below are symmetric numbers in $F(2)$, $F(3)$ and $F(4)$ in digit's order.

$$\begin{aligned} 117682 &= 11 + 7^6 + F(8) + F(2) \\ 117683 &= 11 + 7^6 + F(8) + F(3) \\ 117684 &= 11 + 7^6 + F(8) + F(4). \end{aligned}$$

$$\begin{aligned} 143642 &= (F(14) + F(3))^{6-4} + F(2) \\ 143643 &= (F(14) + F(3))^{6-4} + F(3) \\ 143644 &= (F(14) + F(3))^{6-4} + F(4). \end{aligned}$$

$$\begin{aligned} 142642 &= F(14)^2 + F(6)^{F(4)} + F(2) \\ 142643 &= F(14)^2 + F(6)^{F(4)} + F(3) \\ 142644 &= F(14)^2 + F(6)^{F(4)} + F(4). \end{aligned}$$

$$\begin{aligned} 144392 &= (F(14) + F(4))^{F(3)} - 9 + F(2) \\ 144393 &= (F(14) + F(4))^{F(3)} - 9 + F(3) \\ 144394 &= (F(14) + F(4))^{F(3)} - 9 + F(4). \end{aligned}$$

$$\begin{aligned}161052 &= (1^6 + 10)^5 + F(2) \\161053 &= (1^6 + 10)^5 + F(3) \\161054 &= (1^6 + 10)^5 + F(4).\end{aligned}$$

$$\begin{aligned}162362 &= (F(16)^2 - 3)/6 + F(2) \\162363 &= (F(16)^2 - 3)/6 + F(3) \\162364 &= (F(16)^2 - 3)/6 + F(4).\end{aligned}$$

$$\begin{aligned}261122 &= (2^{F(6)+1} - 1)^2 + F(2) \\261123 &= (2^{F(6)+1} - 1)^2 + F(3) \\261124 &= (2^{F(6)+1} - 1)^2 + F(4).\end{aligned}$$

$$\begin{aligned}317852 &= F((3+1) \times 7) + 8 \times 5 + F(2) \\317853 &= F((3+1) \times 7) + 8 \times 5 + F(3) \\317854 &= F((3+1) \times 7) + 8 \times 5 + F(4).\end{aligned}$$

$$\begin{aligned}317902 &= F((3+1) \times 7) + 90 + F(2) \\317903 &= F((3+1) \times 7) + 90 + F(3) \\317904 &= F((3+1) \times 7) + 90 + F(4).\end{aligned}$$

$$\begin{aligned}371932 &= 3 \times 7 \times F(19+3) + F(2) \\371933 &= 3 \times 7 \times F(19+3) + F(3) \\371934 &= 3 \times 7 \times F(19+3) + F(4).\end{aligned}$$

$$\begin{aligned}670562 &= 6^7 + 05^{F(6)} + F(2) \\670563 &= 6^7 + 05^{F(6)} + F(3) \\670564 &= 6^7 + 05^{F(6)} + F(4).\end{aligned}$$

$$\begin{aligned}741322 &= (7 \times 41 \times 3)^2 + F(2) \\741323 &= (7 \times 41 \times 3)^2 + F(3) \\741324 &= (7 \times 41 \times 3)^2 + F(4).\end{aligned}$$

$$\begin{aligned}786392 &= -7 + 8^6 \times 3 - F(9) + F(2) \\786393 &= -7 + 8^6 \times 3 - F(9) + F(3) \\786394 &= -7 + 8^6 \times 3 - F(9) + F(4).\end{aligned}$$

$$\begin{aligned}786442 &= (7 + 8^6 - 4) \times F(4) + F(2) \\786443 &= (7 + 8^6 - 4) \times F(4) + F(3) \\786444 &= (7 + 8^6 - 4) \times F(4) + F(4).\end{aligned}$$

$$\begin{aligned}786462 &= (7 + 8^6) * F(4) + F(6) + F(2) \\786463 &= (7 + 8^6) * F(4) + F(6) + F(3) \\786464 &= (7 + 8^6) * F(4) + F(6) + F(4).\end{aligned}$$

$$\begin{aligned}786472 &= (F(7) + 8^6) \times (-4 + 7) + F(2) \\786473 &= (F(7) + 8^6) \times (-4 + 7) + F(3) \\786474 &= (F(7) + 8^6) \times (-4 + 7) + F(4).\end{aligned}$$

$$\begin{aligned}832482 &= F(8)^{F(3)} + F(-2 + 4 * 8) + F(2) \\832483 &= F(8)^{F(3)} + F(-2 + 4 * 8) + F(3) \\832484 &= F(8)^{F(3)} + F(-2 + 4 * 8) + F(4).\end{aligned}$$

$$\begin{aligned}849752 &= F(8)/F(4) \times F(-9 + 7 \times 5) + F(2) \\849753 &= F(8)/F(4) \times F(-9 + 7 \times 5) + F(3) \\849754 &= F(8)/F(4) \times F(-9 + 7 \times 5) + F(4).\end{aligned}$$

$$\begin{aligned}923522 &= (F(9) - F(2) - F(3))^{5-F(2)} + F(2) \\923523 &= (F(9) - F(2) - F(3))^{5-F(2)} + F(3) \\923524 &= (F(9) - F(2) - F(3))^{5-F(2)} + F(4).\end{aligned}$$

$$\begin{aligned}974162 &= F(9 + 7)^{F(4-1)} - F(6) + F(2) \\974163 &= F(9 + 7)^{F(4-1)} - F(6) + F(3) \\974164 &= F(9 + 7)^{F(4-1)} - F(6) + F(4).\end{aligned}$$

$$\begin{aligned}975252 &= -9 + F(7) * (-5 + F(25)) + F(2) \\975253 &= -9 + F(7) * (-5 + F(25)) + F(3) \\975254 &= -9 + F(7) * (-5 + F(25)) + F(4).\end{aligned}$$

4.3 Symmetric Representations in Reverse Order of Digits

Below are symmetric numbers in $F(2)$, $F(3)$ and $F(4)$ in reverse order of digits.

$$\begin{aligned}15592 &= F(2) - F(9) + 5^{5+1} \\15593 &= F(3) - F(9) + 5^{5+1} \\15594 &= F(4) - F(9) + 5^{5+1}.\end{aligned}$$

$$\begin{aligned}28562 &= F(2) + (F(6) + 5)^{8/2} \\28563 &= F(3) + (F(6) + 5)^{8/2} \\28564 &= F(4) + (F(6) + 5)^{8/2}.\end{aligned}$$

$$\begin{aligned}39292 &= F(2) - F(9 - 2) + F(9)^3 \\39293 &= F(3) - F(9 - 2) + F(9)^3 \\39294 &= F(4) - F(9 - 2) + F(9)^3.\end{aligned}$$

$$\begin{aligned}39682 &= F(2) + F(8 + 6) + F(9)^3 \\39683 &= F(3) + F(8 + 6) + F(9)^3 \\39684 &= F(4) + F(8 + 6) + F(9)^3.\end{aligned}$$

$$\begin{aligned}46372 &= F(2) + F(7 - 3) + F(6 \times 4) \\46373 &= F(3) + F(7 - 3) + F(6 \times 4) \\46374 &= F(4) + F(7 - 3) + F(6 \times 4).\end{aligned}$$

$$\begin{aligned}170472 &= F(2) + 7^4 \times 071 \\170473 &= F(3) + 7^4 \times 071 \\170474 &= F(4) + 7^4 \times 071.\end{aligned}$$

$$\begin{aligned}194482 &= F(2) + F(8)^{F(4) \times 4 - 9 + 1} \\194483 &= F(3) + F(8)^{F(4) \times 4 - 9 + 1} \\194484 &= F(4) + F(8)^{F(4) \times 4 - 9 + 1}.\end{aligned}$$

$$\begin{aligned}226982 &= F(2) + (F(8) + F(9) + 6)^{F(2+2)} \\226983 &= F(3) + (F(8) + F(9) + 6)^{F(2+2)} \\226984 &= F(4) + (F(8) + F(9) + 6)^{F(2+2)}.\end{aligned}$$

$$\begin{aligned}276342 &= F(2) + (4 + 3^6) \times F(7 \times 2) \\276343 &= F(3) + (4 + 3^6) \times F(7 \times 2) \\276344 &= F(4) + (4 + 3^6) \times F(7 \times 2).\end{aligned}$$

$$\begin{aligned}292682 &= F(2) + (F(8) + F(6) + 2^9)^2 \\292683 &= F(3) + (F(8) + F(6) + 2^9)^2 \\292684 &= F(4) + (F(8) + F(6) + 2^9)^2.\end{aligned}$$

$$\begin{aligned}337562 &= F(2) + (F(6) + 573)^{F(3)} \\337563 &= F(3) + (F(6) + 573)^{F(3)} \\337564 &= F(4) + (F(6) + 573)^{F(3)}.\end{aligned}$$

$$\begin{aligned}357912 &= F(2) + (-1 + 9 \times (F(7) - 5))^3 \\357913 &= F(3) + (-1 + 9 \times (F(7) - 5))^3 \\357914 &= F(4) + (-1 + 9 \times (F(7) - 5))^3.\end{aligned}$$

$$\begin{aligned}390592 &= F(2) - F(9) + 5^{F(09-3)} \\390593 &= F(3) - F(9) + 5^{F(09-3)} \\390594 &= F(4) - F(9) + 5^{F(09-3)}.\end{aligned}$$

$$\begin{aligned}514232 &= F(2) + F(3) + F(24 + 5) \\514233 &= F(3) + F(3) + F(24 + 5) \\514234 &= F(4) + F(3) + F(24 + 5).\end{aligned}$$

$$\begin{aligned}599782 &= F(2) + F(8) \times F(7)^{-9/9+5} \\599783 &= F(3) + F(8) \times F(7)^{-9/9+5} \\599784 &= F(4) + F(8) \times F(7)^{-9/9+5}.\end{aligned}$$

$$\begin{aligned}688562 &= F(2) + (F(6)^5 + F(8)) \times F(8) - F(6) \\688563 &= F(3) + (F(6)^5 + F(8)) \times F(8) - F(6) \\688564 &= F(4) + (F(6)^5 + F(8)) \times F(8) - F(6).\end{aligned}$$

$$\begin{aligned}734812 &= F(2) + (18^4 - 3) \times 7 \\734813 &= F(3) + (18^4 - 3) \times 7 \\734814 &= F(4) + (18^4 - 3) \times 7.\end{aligned}$$

$$\begin{aligned}803472 &= F(2) - F(7)^4 + F(30) - 8 \\803473 &= F(3) - F(7)^4 + F(30) - 8 \\803474 &= F(4) - F(7)^4 + F(30) - 8.\end{aligned}$$

$$\begin{aligned}823572 &= F(2) + 7^{5+F(3)} + 28 \\823573 &= F(3) + 7^{5+F(3)} + 28 \\823574 &= F(4) + 7^{5+F(3)} + 28.\end{aligned}$$

$$\begin{aligned}944812 &= F(2) + (18^4 + F(4)) \times 9 \\944813 &= F(3) + (18^4 + F(4)) \times 9 \\944814 &= F(4) + (18^4 + F(4)) \times 9.\end{aligned}$$

5 Number Patterns with Fibonacci Sequence Values

There are numbers that can be extended just multiplying by 10 without loss of properties of numbers. This type we call as *number patterns*. This section deals with numbers patterns in selfie numbers having Fibonacci sequence values. This kind of numbers are only in terms of digit's order.

$84 = F(8) \times 4$	$3528 = F(3 + 5)^2 \times 8$
$840 = F(8) \times 40$	$35280 = F(3 + 5)^2 \times 80$
$8400 = F(8) \times 400.$	$352800 = F(3 + 5)^2 \times 800.$
$189 = 1 \times F(8) \times 9$	$3635 = (3^6 - F(3)) \times 5$
$1890 = 1 \times F(8) \times 90$	$36350 = (3^6 - F(3)) \times 50$
$18900 = 1 \times F(8) \times 900.$	$363500 = (3^6 - F(3)) \times 500.$
$882 = F(8) \times F(8) \times 2$	$3645 = (3 + 6)^{F(4)} \times 5$
$8820 = F(8) \times F(8) \times 20$	$36450 = (3 + 6)^{F(4)} \times 50$
$88200 = F(8) \times F(8) \times 200.$	$364500 = (3 + 6)^{F(4)} \times 500.$
$1525 = F(15)/2 \times 5$	$4455 = F(4)^4 \times 55$
$15250 = F(15)/2 \times 50$	$44550 = F(4)^4 \times 550$
$152500 = F(15)/2 \times 500.$	$445500 = F(4)^4 \times 5500.$
$1645 = F(16)/F(4) \times 5$	$4896 = F(4) \times 8 \times F(9) \times 6$
$16450 = F(16)/F(4) \times 50$	$48960 = F(4) \times 8 \times F(9) \times 60$
$164500 = F(16)/F(4) \times 500.$	$489600 = F(4) \times 8 \times F(9) \times 600.$
$1785 = F(1 + 7) \times 85$	$4935 = F(4 + 9 + 3) \times 5$
$17850 = F(1 + 7) \times 850$	$49350 = F(4 + 9 + 3) \times 50$
$178500 = F(1 + 7) \times 8500.$	$493500 = F(4 + 9 + 3) \times 500.$
$1897 = (-1 + 8 \times F(9)) \times 7$	$5825 = F(5 + 8) \times 25$
$18970 = (-1 + 8 \times F(9)) \times 70$	$58250 = F(5 + 8) \times 250$
$189700 = (-1 + 8 \times F(9)) \times 700.$	$582500 = F(5 + 8) \times 2500.$
$1972 = (-1 + F(9 + 7)) \times 2$	$6561 = (F(6) - 5)^{F(6)} \times 1$
$19720 = (-1 + F(9 + 7)) \times 20$	$65610 = (F(6) - 5)^{F(6)} \times 10$
$197200 = (-1 + F(9 + 7)) \times 200.$	$656100 = (F(6) - 5)^{F(6)} \times 100.$
$1995 = F(-1 + 9) \times 95$	$9248 = F(9)^{-2+4} \times 8$
$19950 = F(-1 + 9) \times 950$	$92480 = F(9)^{-2+4} \times 80$
$199500 = F(-1 + 9) \times 9500.$	$924800 = F(9)^{-2+4} \times 800.$
$2688 = 2 \times F(6) \times F(8) \times 8$	$11125 = F(11) \times 125$
$26880 = 2 \times F(6) \times F(8) \times 80$	$111250 = F(11) \times 1250$
$268800 = 2 \times F(6) \times F(8) \times 800.$	$1112500 = F(11) \times 12500.$
$2744 = 2 \times 7^{F(4)} \times 4$	$11264 = 11 \times 2^{F(6)} \times 4$
$27440 = 2 \times 7^{F(4)} \times 40$	$112640 = 11 \times 2^{F(6)} \times 40$
$274400 = 2 \times 7^{F(4)} \times 400.$	$1126400 = 11 \times 2^{F(6)} \times 400.$
$3495 = 3 \times F(4 + 9) \times 5$	
$34950 = 3 \times F(4 + 9) \times 50$	
$349500 = 3 \times F(4 + 9) \times 500.$	

$$\begin{aligned}11837 &= F(11) \times (F(8) - F(3)) \times 7 \\118370 &= F(11) \times (F(8) - F(3)) \times 70 \\1183700 &= F(11) \times (F(8) - F(3)) \times 700.\end{aligned}$$

$$\begin{aligned}11844 &= F((1+1) \times 8) \times F(4) \times 4 \\118440 &= F((1+1) \times 8) \times F(4) \times 40 \\1184400 &= F((1+1) \times 8) \times F(4) \times 400.\end{aligned}$$

$$\begin{aligned}12543 &= F((1+2) \times 5 + 4) \times 3 \\125430 &= F((1+2) \times 5 + 4) \times 30 \\1254300 &= F((1+2) \times 5 + 4) \times 300.\end{aligned}$$

$$\begin{aligned}12915 &= (-1 + F(2 \times 9)) \times 1 \times 5 \\129150 &= (-1 + F(2 \times 9)) \times 1 \times 50 \\1291500 &= (-1 + F(2 \times 9)) \times 1 \times 500.\end{aligned}$$

$$\begin{aligned}12925 &= (1^2 + F(9 \times 2)) \times 5 \\129250 &= (1^2 + F(9 \times 2)) \times 50 \\1292500 &= (1^2 + F(9 \times 2)) \times 500.\end{aligned}$$

$$\begin{aligned}12935 &= (F(1 \times 2 \times 9) + 3) \times 5 \\129350 &= (F(1 \times 2 \times 9) + 3) \times 50 \\1293500 &= (F(1 \times 2 \times 9) + 3) \times 500.\end{aligned}$$

$$\begin{aligned}12945 &= (1 + F(2 \times 9) + 4) \times 5 \\129450 &= (1 + F(2 \times 9) + 4) \times 50 \\1294500 &= (1 + F(2 \times 9) + 4) \times 500.\end{aligned}$$

$$\begin{aligned}12965 &= (1 + F(2 \times 9) + F(6)) \times 5 \\129650 &= (1 + F(2 \times 9) + F(6)) \times 50 \\1296500 &= (1 + F(2 \times 9) + F(6)) \times 500.\end{aligned}$$

$$\begin{aligned}14703 &= F(14) \times F(7) \times 03 \\147030 &= F(14) \times F(7) \times 030 \\1470300 &= F(14) \times F(7) \times 0300.\end{aligned}$$

$$\begin{aligned}15225 &= (F(15) - F(2)) \times 25 \\152250 &= (F(15) - F(2)) \times 250 \\1522500 &= (F(15) - F(2)) \times 2500.\end{aligned}$$

$$\begin{aligned}15325 &= (F(15) + 3) \times 25 \\153250 &= (F(15) + 3) \times 250 \\1532500 &= (F(15) + 3) \times 2500.\end{aligned}$$

$$\begin{aligned}15792 &= F(1+5) \times F(7+9) \times 2 \\157920 &= F(1+5) \times F(7+9) \times 20 \\1579200 &= F(1+5) \times F(7+9) \times 200.\end{aligned}$$

$$\begin{aligned}16724 &= F(-1 + 6 + 7 \times 2) \times 4 \\167240 &= F(-1 + 6 + 7 \times 2) \times 40 \\1672400 &= F(-1 + 6 + 7 \times 2) \times 400.\end{aligned}$$

$$\begin{aligned}17475 &= F(17 - 4) \times 75 \\174750 &= F(17 - 4) \times 750 \\1747500 &= F(17 - 4) \times 7500.\end{aligned}$$

$$\begin{aligned}18277 &= (F(18) + 27) \times 7 \\182770 &= (F(18) + 27) \times 70 \\1827700 &= (F(18) + 27) \times 700.\end{aligned}$$

$$\begin{aligned}18482 &= (1 + F(8)^{F(4)} - F(8)) \times 2 \\184820 &= (1 + F(8)^{F(4)} - F(8)) \times 20 \\1848200 &= (1 + F(8)^{F(4)} - F(8)) \times 200.\end{aligned}$$

$$\begin{aligned}18522 &= 1 \times F(8)^{5-2} \times 2 \\185220 &= 1 \times F(8)^{5-2} \times 20 \\1852200 &= 1 \times F(8)^{5-2} \times 200.\end{aligned}$$

$$\begin{aligned}19552 &= (-1 + F(9 + 5)) \times 52 \\195520 &= (-1 + F(9 + 5)) \times 520 \\1955200 &= (-1 + F(9 + 5)) \times 5200.\end{aligned}$$

$$\begin{aligned}19745 &= (1 + F(9 + 7) \times 4) \times 5 \\197450 &= (1 + F(9 + 7) \times 4) \times 50 \\1974500 &= (1 + F(9 + 7) \times 4) \times 500.\end{aligned}$$

$$\begin{aligned}19845 &= F(-1 + 9) \times F(8) \times 45 \\198450 &= F(-1 + 9) \times F(8) \times 450 \\1984500 &= F(-1 + 9) \times F(8) \times 4500.\end{aligned}$$

$$\begin{aligned}19986 &= (-1 + F(9) \times 98) \times 6 \\199860 &= (-1 + F(9) \times 98) \times 60 \\1998600 &= (-1 + F(9) \times 98) \times 600.\end{aligned}$$

$$\begin{aligned}20193 &= (F(20) \times 1 - F(9)) \times 3 \\201930 &= (F(20) \times 1 - F(9)) \times 30 \\2019300 &= (F(20) \times 1 - F(9)) \times 300.\end{aligned}$$

$$\begin{aligned}20343 &= (F(20) + F(3)^4) \times 3 \\203430 &= (F(20) + F(3)^4) \times 30 \\2034300 &= (F(20) + F(3)^4) \times 300.\end{aligned}$$

$$\begin{aligned}20373 &= (F(20) + F(3) \times F(7)) \times 3 \\203730 &= (F(20) + F(3) \times F(7)) \times 30 \\2037300 &= (F(20) + F(3) \times F(7)) \times 300.\end{aligned}$$

$$\begin{aligned} 21842 &= (F(21) - F(8) - 4) \times 2 \\ 218420 &= (F(21) - F(8) - 4) \times 20 \\ 2184200 &= (F(21) - F(8) - 4) \times 200. \end{aligned}$$

$$\begin{aligned} 21862 &= (F(21) - F(8) + 6) \times 2 \\ 218620 &= (F(21) - F(8) + 6) \times 20 \\ 2186200 &= (F(21) - F(8) + 6) \times 200. \end{aligned}$$

$$\begin{aligned} 21892 &= F(21) \times (-8 + 9) \times 2 \\ 218920 &= F(21) \times (-8 + 9) \times 20 \\ 2189200 &= F(21) \times (-8 + 9) \times 200. \end{aligned}$$

$$\begin{aligned} 21912 &= (F(21) + 9 + 1) \times 2 \\ 219120 &= (F(21) + 9 + 1) \times 20 \\ 2191200 &= (F(21) + 9 + 1) \times 200. \end{aligned}$$

$$\begin{aligned} 22995 &= (-F(2) + 2^9) \times 9 \times 5 \\ 229950 &= (-F(2) + 2^9) \times 9 \times 50 \\ 2299500 &= (-F(2) + 2^9) \times 9 \times 500. \end{aligned}$$

$$\begin{aligned} 23826 &= (2 + (3 \times F(8))^2) \times 6 \\ 238260 &= (2 + (3 \times F(8))^2) \times 60 \\ 2382600 &= (2 + (3 \times F(8))^2) \times 600. \end{aligned}$$

$$\begin{aligned} 24255 &= F(2 \times 4)^2 \times 55 \\ 242550 &= F(2 \times 4)^2 \times 550 \\ 2425500 &= F(2 \times 4)^2 \times 5500. \end{aligned}$$

$$\begin{aligned} 24573 &= (-F(2) + (-F(4) + 5)^{F(7)}) \times 3 \\ 245730 &= (-F(2) + (-F(4) + 5)^{F(7)}) \times 30 \\ 2457300 &= (-F(2) + (-F(4) + 5)^{F(7)}) \times 300. \end{aligned}$$

$$\begin{aligned} 24675 &= F(2^4) \times (-F(6) + F(7)) \times 5 \\ 246750 &= F(2^4) \times (-F(6) + F(7)) \times 50 \\ 2467500 &= F(2^4) \times (-F(6) + F(7)) \times 500. \end{aligned}$$

$$\begin{aligned} 24997 &= (F(2^4) + F(9 + 9)) \times 7 \\ 249970 &= (F(2^4) + F(9 + 9)) \times 70 \\ 2499700 &= (F(2^4) + F(9 + 9)) \times 700. \end{aligned}$$

$$\begin{aligned} 26244 &= (F(2) + 6 + 2)^4 \times 4 \\ 262440 &= (F(2) + 6 + 2)^4 \times 40 \\ 2624400 &= (F(2) + 6 + 2)^4 \times 400. \end{aligned}$$

$$\begin{aligned} 26411 &= (F(2) + 6)^4 \times 11 \\ 264110 &= (F(2) + 6)^4 \times 110 \\ 2641100 &= (F(2) + 6)^4 \times 1100. \end{aligned}$$

$$\begin{aligned} 26855 &= (2^{F(6)} \times F(8) - 5) \times 5 \\ 268550 &= (2^{F(6)} \times F(8) - 5) \times 50 \\ 2685500 &= (2^{F(6)} \times F(8) - 5) \times 500. \end{aligned}$$

$$\begin{aligned} 27675 &= (F(2 \times 7) - F(6)) \times 75 \\ 276750 &= (F(2 \times 7) - F(6)) \times 750 \\ 2767500 &= (F(2 \times 7) - F(6)) \times 7500. \end{aligned}$$

$$\begin{aligned} 28275 &= F(2 \times 8 - 2) \times 75 \\ 282750 &= F(2 \times 8 - 2) \times 750 \\ 2827500 &= F(2 \times 8 - 2) \times 7500. \end{aligned}$$

$$\begin{aligned} 28288 &= (F(2) + F(8)^2) \times 8 \times 8 \\ 282880 &= (F(2) + F(8)^2) \times 8 \times 80 \\ 2828800 &= (F(2) + F(8)^2) \times 8 \times 800. \end{aligned}$$

$$\begin{aligned} 28672 &= 2^8 \times F(6) \times 7 \times 2 \\ 286720 &= 2^8 \times F(6) \times 7 \times 20 \\ 2867200 &= 2^8 \times F(6) \times 7 \times 200. \end{aligned}$$

$$\begin{aligned} 28746 &= F(2 + 8 + 7) \times F(4) \times 6 \\ 287460 &= F(2 + 8 + 7) \times F(4) \times 60 \\ 2874600 &= F(2 + 8 + 7) \times F(4) \times 600. \end{aligned}$$

$$\begin{aligned} 29197 &= (-F(2) - 9 + F(19)) \times 7 \\ 291970 &= (-F(2) - 9 + F(19)) \times 70 \\ 2919700 &= (-F(2) - 9 + F(19)) \times 700. \end{aligned}$$

$$\begin{aligned} 29989 &= F(2) + F(9) \times 98 \times 9 \\ 299890 &= F(2) + F(9) \times 98 \times 90 \\ 2998900 &= F(2) + F(9) \times 98 \times 900. \end{aligned}$$

$$\begin{aligned} 31648 &= (F(3) + F(16)) \times 4 \times 8 \\ 316480 &= (F(3) + F(16)) \times 4 \times 80 \\ 3164800 &= (F(3) + F(16)) \times 4 \times 800. \end{aligned}$$

$$\begin{aligned} 32744 &= (-F(3) + 2^{F(7)} - 4) \times 4 \\ 327440 &= (-F(3) + 2^{F(7)} - 4) \times 40 \\ 3274400 &= (-F(3) + 2^{F(7)} - 4) \times 400. \end{aligned}$$

$$\begin{aligned} 32747 &= F(3)^{2+F(7)} - F(4) \times 7 \\ 327470 &= F(3)^{2+F(7)} - F(4) \times 70 \\ 3274700 &= F(3)^{2+F(7)} - F(4) \times 700. \end{aligned}$$

$$\begin{aligned} 32753 &= F(3)^{2+F(7)} - 5 \times 3 \\ 327530 &= F(3)^{2+F(7)} - 5 \times 30 \\ 3275300 &= F(3)^{2+F(7)} - 5 \times 300. \end{aligned}$$

$$\begin{aligned} 32805 &= (F(3) + F(2))^8 \times 05 \\ 328050 &= (F(3) + F(2))^8 \times 050 \\ 3280500 &= (F(3) + F(2))^8 \times 0500. \end{aligned}$$

$$\begin{aligned} 33448 &= F(3^3 - 4 - 4) \times 8 \\ 334480 &= F(3^3 - 4 - 4) \times 80 \\ 3344800 &= F(3^3 - 4 - 4) \times 800. \end{aligned}$$

$$\begin{aligned} 33785 &= (F(3^3 - 7) - 8) \times 5 \\ 337850 &= (F(3^3 - 7) - 8) \times 50 \\ 3378500 &= (F(3^3 - 7) - 8) \times 500. \end{aligned}$$

$$\begin{aligned} 34475 &= (-F(3) + F(4 \times 4)) \times 7 \times 5 \\ 344750 &= (-F(3) + F(4 \times 4)) \times 7 \times 50 \\ 3447500 &= (-F(3) + F(4 \times 4)) \times 7 \times 500. \end{aligned}$$

$$\begin{aligned} 34545 &= (F(3 \times 4) + F(5 \times 4)) \times 5 \\ 345450 &= (F(3 \times 4) + F(5 \times 4)) \times 50 \\ 3454500 &= (F(3 \times 4) + F(5 \times 4)) \times 500. \end{aligned}$$

$$\begin{aligned} 36992 &= F(3) \times F(6) \times F(9) \times F(9) \times 2 \\ 369920 &= F(3) \times F(6) \times F(9) \times F(9) \times 20 \\ 3699200 &= F(3) \times F(6) \times F(9) \times F(9) \times 200. \end{aligned}$$

$$\begin{aligned} 36994 &= F(3) + F(6) \times F(9) \times F(9) \times 4 \\ 369940 &= F(3) + F(6) \times F(9) \times F(9) \times 40 \\ 3699400 &= F(3) + F(6) \times F(9) \times F(9) \times 400. \end{aligned}$$

$$\begin{aligned} 37044 &= (3 \times 7)^{F(04)} \times 4 \\ 370440 &= (3 \times 7)^{F(04)} \times 40 \\ 3704400 &= (3 \times 7)^{F(04)} \times 400. \end{aligned}$$

$$\begin{aligned} 38675 &= (F(3 \times 8)/6 + 7) \times 5 \\ 386750 &= (F(3 \times 8)/6 + 7) \times 50 \\ 3867500 &= (F(3 \times 8)/6 + 7) \times 500. \end{aligned}$$

$$\begin{aligned} 39282 &= (3^9 - 2 \times F(8)) \times 2 \\ 392820 &= (3^9 - 2 \times F(8)) \times 20 \\ 3928200 &= (3^9 - 2 \times F(8)) \times 200. \end{aligned}$$

$$\begin{aligned} 39301 &= -3 + F(9)^3 \times 01 \\ 393010 &= -3 + F(9)^3 \times 010 \\ 3930100 &= -3 + F(9)^3 \times 0100. \end{aligned}$$

$$\begin{aligned} 39352 &= (3^9 - F(3) - 5) \times 2 \\ 393520 &= (3^9 - F(3) - 5) \times 20 \\ 3935200 &= (3^9 - F(3) - 5) \times 200. \end{aligned}$$

$$\begin{aligned} 39984 &= 3 \times F(9) \times 98 \times 4 \\ 399840 &= 3 \times F(9) \times 98 \times 40 \\ 3998400 &= 3 \times F(9) \times 98 \times 400. \end{aligned}$$

$$\begin{aligned} 42336 &= (4 \times F(2^3))^{F(3)} \times 6 \\ 423360 &= (4 \times F(2^3))^{F(3)} \times 60 \\ 4233600 &= (4 \times F(2^3))^{F(3)} \times 600. \end{aligned}$$

$$\begin{aligned} 44415 &= F(4) \times F(4 \times 4) \times 15 \\ 444150 &= F(4) \times F(4 \times 4) \times 150 \\ 4441500 &= F(4) \times F(4 \times 4) \times 1500. \end{aligned}$$

$$\begin{aligned} 45696 &= 4 \times 56 \times F(9) \times 6 \\ 456960 &= 4 \times 56 \times F(9) \times 60 \\ 4569600 &= 4 \times 56 \times F(9) \times 600. \end{aligned}$$

$$\begin{aligned} 46137 &= F(4) \times F(6+1)^3 \times 7 \\ 461370 &= F(4) \times F(6+1)^3 \times 70 \\ 4613700 &= F(4) \times F(6+1)^3 \times 700. \end{aligned}$$

$$\begin{aligned} 46353 &= (F(4 \times 6)/3 - 5) \times 3 \\ 463530 &= (F(4 \times 6)/3 - 5) \times 30 \\ 4635300 &= (F(4 \times 6)/3 - 5) \times 300. \end{aligned}$$

$$\begin{aligned} 46865 &= (F(4)^6 - 8) \times 65 \\ 468650 &= (F(4)^6 - 8) \times 650 \\ 4686500 &= (F(4)^6 - 8) \times 6500. \end{aligned}$$

$$\begin{aligned} 47327 &= (-4 + F((7+3) \times 2)) \times 7 \\ 473270 &= (-4 + F((7+3) \times 2)) \times 70 \\ 4732700 &= (-4 + F((7+3) \times 2)) \times 700. \end{aligned}$$

$$\begin{aligned} 47365 &= (-4 + F(7) \times 3^6) \times 5 \\ 473650 &= (-4 + F(7) \times 3^6) \times 50 \\ 4736500 &= (-4 + F(7) \times 3^6) \times 500. \end{aligned}$$

$$\begin{aligned} 47526 &= F(4+7)^{F(5-2)} \times 6 \\ 475260 &= F(4+7)^{F(5-2)} \times 60 \\ 4752600 &= F(4+7)^{F(5-2)} \times 600. \end{aligned}$$

$$\begin{aligned} 48384 &= (F(4) \times 8)^{F(3)} \times 84 \\ 483840 &= (F(4) \times 8)^{F(3)} \times 840 \\ 4838400 &= (F(4) \times 8)^{F(3)} \times 8400. \end{aligned}$$

$$\begin{aligned} 54725 &= 5 \times (F(4)^7 + 2) \times 5 \\ 547250 &= 5 \times (F(4)^7 + 2) \times 50 \\ 5472500 &= 5 \times (F(4)^7 + 2) \times 500. \end{aligned}$$

$$\begin{aligned} 49368 &= (-F(4) + 9^3) \times 68 \\ 493680 &= (-F(4) + 9^3) \times 680 \\ 4936800 &= (-F(4) + 9^3) \times 6800. \end{aligned}$$

$$\begin{aligned} 54735 &= (5 - 4 + F(7 \times 3)) \times 5 \\ 547350 &= (5 - 4 + F(7 \times 3)) \times 50 \\ 5473500 &= (5 - 4 + F(7 \times 3)) \times 500. \end{aligned}$$

$$\begin{aligned} 49923 &= (F(4) \times (9 + F(9)))^2 \times 3 \\ 499230 &= (F(4) \times (9 + F(9)))^2 \times 30 \\ 4992300 &= (F(4) \times (9 + F(9)))^2 \times 300. \end{aligned}$$

$$\begin{aligned} 57132 &= (5 + F(7)^{1+3}) \times 2 \\ 571320 &= (5 + F(7)^{1+3}) \times 20 \\ 5713200 &= (5 + F(7)^{1+3}) \times 200. \end{aligned}$$

$$\begin{aligned} 53133 &= F(5^{3-1} - 3) \times 3 \\ 531330 &= F(5^{3-1} - 3) \times 30 \\ 5313300 &= F(5^{3-1} - 3) \times 300. \end{aligned}$$

$$\begin{aligned} 61824 &= (-F(6) + F(18)) \times 24 \\ 618240 &= (-F(6) + F(18)) \times 240 \\ 6182400 &= (-F(6) + F(18)) \times 2400. \end{aligned}$$

$$\begin{aligned} 53488 &= (5^3 + F(4)^8) \times 8 \\ 534880 &= (5^3 + F(4)^8) \times 80 \\ 5348800 &= (5^3 + F(4)^8) \times 800. \end{aligned}$$

$$\begin{aligned} 62426 &= (F(6) - F(2))^4 \times 26 \\ 624260 &= (F(6) - F(2))^4 \times 260 \\ 6242600 &= (F(6) - F(2))^4 \times 2600. \end{aligned}$$

$$\begin{aligned} 54128 &= (F(5 \times 4) \times 1 + F(2)) \times 8 \\ 541280 &= (F(5 \times 4) \times 1 + F(2)) \times 80 \\ 5412800 &= (F(5 \times 4) \times 1 + F(2)) \times 800. \end{aligned}$$

$$\begin{aligned} 62715 &= F(6 \times 2 + 7) \times 15 \\ 627150 &= F(6 \times 2 + 7) \times 150 \\ 6271500 &= F(6 \times 2 + 7) \times 1500. \end{aligned}$$

$$\begin{aligned} 54168 &= (F(5 \times 4) + 1 \times 6) \times 8 \\ 541680 &= (F(5 \times 4) + 1 \times 6) \times 80 \\ 5416800 &= (F(5 \times 4) + 1 \times 6) \times 800. \end{aligned}$$

$$\begin{aligned} 65522 &= (F(6)^5 - 5 - 2) \times 2 \\ 655220 &= (F(6)^5 - 5 - 2) \times 20 \\ 6552200 &= (F(6)^5 - 5 - 2) \times 200. \end{aligned}$$

$$\begin{aligned} 54248 &= (F(5 \times 4) + 2^4) \times 8 \\ 542480 &= (F(5 \times 4) + 2^4) \times 80 \\ 5424800 &= (F(5 \times 4) + 2^4) \times 800. \end{aligned}$$

$$\begin{aligned} 65532 &= (F(6)^5 - 5 + 3) \times 2 \\ 655320 &= (F(6)^5 - 5 + 3) \times 20 \\ 6553200 &= (F(6)^5 - 5 + 3) \times 200. \end{aligned}$$

$$\begin{aligned} 54288 &= (F(5 \times 4) \times F(2) + F(8)) \times 8 \\ 542880 &= (F(5 \times 4) \times F(2) + F(8)) \times 80 \\ 5428800 &= (F(5 \times 4) \times F(2) + F(8)) \times 800. \end{aligned}$$

$$\begin{aligned} 65562 &= (F(6)^5 + 5 + F(6)) \times 2 \\ 655620 &= (F(6)^5 + 5 + F(6)) \times 20 \\ 6556200 &= (F(6)^5 + 5 + F(6)) \times 200. \end{aligned}$$

$$\begin{aligned} 54568 &= (F(5 \times 4) + 56) \times 8 \\ 545680 &= (F(5 \times 4) + 56) \times 80 \\ 5456800 &= (F(5 \times 4) + 56) \times 800. \end{aligned}$$

$$\begin{aligned} 65572 &= (F(6)^5 + 5 + F(7)) \times 2 \\ 655720 &= (F(6)^5 + 5 + F(7)) \times 20 \\ 6557200 &= (F(6)^5 + 5 + F(7)) \times 200. \end{aligned}$$

$$\begin{aligned} 54675 &= 5 \times F(4)^{-6+F(7)} \times 5 \\ 546750 &= 5 \times F(4)^{-6+F(7)} \times 50 \\ 5467500 &= 5 \times F(4)^{-6+F(7)} \times 500. \end{aligned}$$

$$\begin{aligned} 67335 &= 67^{F(3)} \times 3 \times 5 \\ 673350 &= 67^{F(3)} \times 3 \times 50 \\ 6733500 &= 67^{F(3)} \times 3 \times 500. \end{aligned}$$

$$\begin{aligned}
68544 &= 6 \times F(8) \times 544 & 84755 &= (F(8 + 4) + 7^5) \times 5 \\
685440 &= 6 \times F(8) \times 5440 & 847550 &= (F(8 + 4) + 7^5) \times 50 \\
6854400 &= 6 \times F(8) \times 54400. & 8475500 &= (F(8 + 4) + 7^5) \times 500. \\
\\
69632 &= F(6) \times F(9) \times F(6) \times 32 & 86688 &= F(8) \times 6 \times 688 \\
696320 &= F(6) \times F(9) \times F(6) \times 320 & 866880 &= F(8) \times 6 \times 6880 \\
6963200 &= F(6) \times F(9) \times F(6) \times 3200. & 8668800 &= F(8) \times 6 \times 68800. \\
\\
73791 &= (7 + F(3)^{F(7)}) \times 9 \times 1 & 93312 &= (F(9) + F(3))^3 \times 1 \times 2 \\
737910 &= (7 + F(3)^{F(7)}) \times 9 \times 10 & 933120 &= (F(9) + F(3))^3 \times 1 \times 20 \\
7379100 &= (7 + F(3)^{F(7)}) \times 9 \times 100. & 9331200 &= (F(9) + F(3))^3 \times 1 \times 200. \\
\\
79929 &= (F(7 + 9) \times 9 - 2) \times 9 & 94566 &= (F(9) \times 4 + 5^6) \times 6 \\
799290 &= (F(7 + 9) \times 9 - 2) \times 90 & 945660 &= (F(9) \times 4 + 5^6) \times 60 \\
7992900 &= (F(7 + 9) \times 9 - 2) \times 900. & 9456600 &= (F(9) \times 4 + 5^6) \times 600. \\
\\
82824 &= F(8) \times (-F(2) + F(8 \times 2)) \times 4 & 99144 &= F(9) \times 9^{F(1 \times 4)} \times 4 \\
828240 &= F(8) \times (-F(2) + F(8 \times 2)) \times 40 & 991440 &= F(9) \times 9^{F(1 \times 4)} \times 40 \\
8282400 &= F(8) \times (-F(2) + F(8 \times 2)) \times 400. & 9914400 &= F(9) \times 9^{F(1 \times 4)} \times 400. \\
\\
83259 &= (F(8)^3 - 2 \times 5) \times 9 & & \\
832590 &= (F(8)^3 - 2 \times 5) \times 90 & & \\
8325900 &= (F(8)^3 - 2 \times 5) \times 900. & &
\end{aligned}$$

6 More Selfie Numbers

This section deals with the numbers not appearing above. Here also we have three subsections, where first one give the representations in both ways, second subsection give numbers in order of digits and the final subsection give the numbers in reverse order of digits. This section we have limited only up to 5 digits. In a similar way, we can work with number of higher width.

6.1 Both Ways Representations

$$\begin{aligned}
143 &= -1 + F(4 \times 3) & 1178 &= F(11) \times F(7) + F(8) \\
&= F(3 \times 4) - 1. & &= F(8) + F(7) \times F(11). \\
\\
144 &= F((-1 + 4) \times 4) & 1292 &= 1 \times F(2 \times 9)/2 \\
&= F(4 \times (4 - 1)). & &= F(2 \times 9)/2 \times 1. \\
\\
168 &= 1 \times F(6) \times F(8) & 1536 &= (1 + 5) \times F(3)^{F(6)} \\
&= F(8) \times F(6) \times 1. & &= F(6)^3 \times F(5 - 1). \\
\\
377 &= F(3 \times 7 - 7) & 1589 &= -F(1 + 5) + F(8 + 9) \\
&= F(-7 + 7 \times 3). & &= F(9 + 8) - F(5 + 1). \\
\\
986 &= F(9) \times (F(8) + F(6)) & 1618 &= F(16 + 1) + F(8) \\
&= (F(6) + F(8)) \times F(9). & &= F(8) + F(16 + 1).
\end{aligned}$$

$$\begin{aligned} 1848 &= (1 + F(8)) \times 4 \times F(8) \\ &= 84 \times (F(8) + 1). \end{aligned}$$

$$\begin{aligned} 6936 &= 6 \times F(9) \times F(3 + 6) \\ &= F(6 + 3) \times F(9) \times 6. \end{aligned}$$

$$\begin{aligned} 1856 &= -1 + F(8 + 5) \times F(6) \\ &= F(6) \times (F(5 + 8) - 1). \end{aligned}$$

$$\begin{aligned} 10336 &= (1 + 03) \times F(3 \times 6) \\ &= F(6 \times 3) \times (3 + 01). \end{aligned}$$

$$\begin{aligned} 1925 &= (1 + F(9)) \times F(2 \times 5) \\ &= F(5 \times 2) \times (F(9) + 1). \end{aligned}$$

$$\begin{aligned} 10937 &= -1 \times 09 + F(3 \times 7) \\ &= F(7 \times 3) - 9 \times 01. \end{aligned}$$

$$\begin{aligned} 1973 &= -1 + F(9 + 7) \times F(3) \\ &= F(3) \times F(7 + 9) - 1. \end{aligned}$$

$$\begin{aligned} 11392 &= F(11) \times F(3)^{9-2} \\ &= 2^{9-F(3)} \times F(11). \end{aligned}$$

$$\begin{aligned} 2529 &= F(2 \times 5) + F(2 \times 9) \\ &= F(9 \times 2) - F(5 \times 2). \end{aligned}$$

$$\begin{aligned} 12776 &= F(1 + 2 + 7 + 7) \times F(6) \\ &= F(6) \times F(7 + 7 + 2 + 1). \end{aligned}$$

$$\begin{aligned} 2576 &= F(25 - 7) - F(6) \\ &= -F(6) + F(-7 + 5^2). \end{aligned}$$

$$\begin{aligned} 12788 &= -1 + (-F(2) + F(7 + 8)) \times F(8) \\ &= F(8) \times (F(8 + 7) - F(2)) - 1. \end{aligned}$$

$$\begin{aligned} 2577 &= F(25 - 7) - 7 \\ &= -7 + F(-7 + 5^2). \end{aligned}$$

$$\begin{aligned} 12797 &= (-1 + F(2 \times 7)) \times F(9) + F(7) \\ &= F(7) + F(9) \times (F(7 \times 2) - 1). \end{aligned}$$

$$\begin{aligned} 2582 &= F(2 \times 5 + 8) - 2 \\ &= -2 + F(8 + 5 \times 2). \end{aligned}$$

$$\begin{aligned} 12798 &= 1 + F(2 \times 7) \times F(9) - F(8) \\ &= -F(8) + F(9) \times F(7 \times 2) + 1. \end{aligned}$$

$$\begin{aligned} 2584 &= F(2 \times (5 + 8 - 4)) \\ &= F((-4 + 8) \times 5 - 2). \end{aligned}$$

$$\begin{aligned} 12817 &= -1 + (F(2 \times 8) - 1) \times F(7) \\ &= F(7) \times (-1 + F(8 \times 2)) - 1. \end{aligned}$$

$$\begin{aligned} 2585 &= F(2) + F(5 + 8 + 5) \\ &= F(5 + 8 + 5) + F(2). \end{aligned}$$

$$\begin{aligned} 12818 &= (-1 + F(2 \times 8)) \times F(-1 + 8) \\ &= F(8 - 1) \times (F(8 \times 2) - 1). \end{aligned}$$

$$\begin{aligned} 2586 &= 2 + F((-5 + 8) \times 6) \\ &= F(6 \times (8 - 5)) + 2. \end{aligned}$$

$$\begin{aligned} 12819 &= 1 + F(2 \times (8 - 1)) \times F(9) \\ &= F(9) \times F((-1 + 8) \times 2) + 1. \end{aligned}$$

$$\begin{aligned} 3373 &= (F(3) + F(7))^3 - F(3) \\ &= -F(3) + (F(3) + F(7))^3. \end{aligned}$$

$$\begin{aligned} 12959 &= (1 + F(2 \times 9)) \times 5 + F(9) \\ &= F(9) + 5 \times (F(9 \times 2) + 1). \end{aligned}$$

$$\begin{aligned} 4791 &= F(4) \times F(7 + 9 + 1) \\ &= F(1 + 9 + 7) \times F(4). \end{aligned}$$

$$\begin{aligned} 13525 &= F((1 + 3) \times 5) \times 2 - 5 \\ &= -5 + 2 \times F(5 \times (3 + 1)). \end{aligned}$$

$$\begin{aligned} 4876 &= -4 + F(8 + 7) \times F(6) \\ &= F(6) \times F(7 + 8) - 4. \end{aligned}$$

$$\begin{aligned} 13546 &= F(1 \times 3) \times (F(5 \times 4) + F(6)) \\ &= (F(6) + F(4 \times 5)) \times (3 - 1). \end{aligned}$$

$$\begin{aligned} 4893 &= F(4 + 8) \times F(9) - 3 \\ &= -3 + F(9) \times F(8 + 4). \end{aligned}$$

$$\begin{aligned} 13549 &= 1 + F(3) \times (F(5 \times 4) + 9) \\ &= (9 + F(4 \times 5)) \times F(3) + 1. \end{aligned}$$

$$\begin{aligned} 4913 &= -4 + F(9 - 1)^3 \\ &= (-F(3) + 19)^{F(4)}. \end{aligned}$$

$$\begin{aligned} 13572 &= (1 + 35) \times F(7 \times 2) \\ &= F(2 \times 7) \times (5 + 31). \end{aligned}$$

$$\begin{aligned} 13837 &= (1 \times 3 \times 8)^3 + F(7) \\ &= F(7) + (3 \times 8)^3 \times 1. \end{aligned}$$

$$\begin{aligned} 19649 &= (1 + F(9) - F(6))^{F(4)} - F(9) \\ &= -F(9) + (-F(4) + 6)^9 \times 1. \end{aligned}$$

$$\begin{aligned} 14336 &= 14 \times F(3)^{F(3)+F(6)} \\ &= F(6)^3 \times (3^{F(4)} + 1). \end{aligned}$$

$$\begin{aligned} 19682 &= -1 + (9 - 6)^{8+F(2)} \\ &= F(2 + 8 - 6)^9 - 1. \end{aligned}$$

$$\begin{aligned} 14678 &= -1 + F(4) \times F(6 + 7) \times F(8) \\ &= F(8) \times F(7 + 6) \times F(4) - 1. \end{aligned}$$

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

$$\begin{aligned} 14976 &= F(-1 + 4 + 9) \times F(7) \times F(6) \\ &= F(6) \times F(7) \times F(9 + 4 - 1). \end{aligned}$$

$$\begin{aligned} 19697 &= 1 + (9 - 6)^9 + F(7) \\ &= F(7) + (9 - 6)^9 + 1. \end{aligned}$$

$$\begin{aligned} 14987 &= (-1 + F(4) \times F(9) \times F(8)) \times 7 \\ &= 7 \times (F(8) \times F(9) \times F(4) - 1). \end{aligned}$$

$$\begin{aligned} 19747 &= (7 + F(4)^7) \times 9 + 1 \\ &= 1 + 9 \times (7 + F(4)^7). \end{aligned}$$

$$\begin{aligned} 15464 &= F(1 + 5) + F(4 \times 6)/F(4) \\ &= F(4 \times 6)/F(4) + F(5 + 1). \end{aligned}$$

$$\begin{aligned} 19965 &= (-1 + F(9)) \times (F(9 + 6) - 5) \\ &= (-5 + F(6 + 9)) \times (F(9) - 1). \end{aligned}$$

$$\begin{aligned} 15665 &= 1 \times 5^6 + F(6) \times 5 \\ &= 5^6 + F(6) \times 5 \times 1. \end{aligned}$$

$$\begin{aligned} 20274 &= (F(20) \times F(2) - 7) \times F(4) \\ &= F(4) \times (-7 + F(20)) \times F(2). \end{aligned}$$

$$\begin{aligned} 16376 &= (1^6 + 3)^7 - F(6) \\ &= -F(6) + (7 - 3)^{6+1}. \end{aligned}$$

$$\begin{aligned} 21168 &= (21 + F(16)) \times F(8) \\ &= F(8) \times (6 + 1) \times F(12). \end{aligned}$$

$$\begin{aligned} 16383 &= -1 + F(6)^{-3+8}/F(3) \\ &= F(3)^{8+3} \times F(6) - 1. \end{aligned}$$

$$\begin{aligned} 21894 &= 2 \times (1 + F(8 + 9 + 4)) \\ &= (F(4 + 9 + 8) + 1) \times 2. \end{aligned}$$

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

$$\begin{aligned} 23182 &= -2 + F(3 \times 1 \times 8)/2 \\ &= -2 + F(8 \times 1 \times 3)/2. \end{aligned}$$

$$\begin{aligned} 17711 &= F((1 + 1) \times 7 + 7 + 1) \\ &= F(17 + 7 - 1 - 1). \end{aligned}$$

$$\begin{aligned} 23183 &= (-2 + F(3 \times 1 \times 8))/F(3) \\ &= F(3 \times 8)/F(1 \times 3) - F(2). \end{aligned}$$

$$\begin{aligned} 17997 &= (-1 \times F(7) + F(9 + 9)) \times 7 \\ &= (-F(7) + F(9 + 9)) \times 7 \times 1. \end{aligned}$$

$$\begin{aligned} 23184 &= F(23 + 1)/(8/4) \\ &= F(4 \times (8 + 1 - 3))/2. \end{aligned}$$

$$\begin{aligned} 18756 &= (1 + (-8 + F(7))^5) \times 6 \\ &= 6 \times (5^{F(7)-8} + 1). \end{aligned}$$

$$\begin{aligned} 23688 &= (F(2) + F(3)) \times F(6) \times F(8 + 8) \\ &= F(8 + 8) \times 6 \times F(3) \times 2. \end{aligned}$$

$$\begin{aligned} 19447 &= -1 + F(9) \times 44 \times F(7) \\ &= F(7) \times 44 \times F(9) - 1. \end{aligned}$$

$$\begin{aligned} 24297 &= F(2 \times 4) \times F(2 + 9) \times F(7) \\ &= F(7) \times F(9 + 2) \times F(4 \times 2). \end{aligned}$$

$$\begin{aligned} 19449 &= -1 - F(9 + 4) + F(4)^9 \\ &= -F(9 + 4) + F(4)^9 - 1. \end{aligned}$$

$$\begin{aligned} 24334 &= 2 \times (-4 + 3^3)^{F(4)} \\ &= (-4 + 3^3)^{F(4)} \times 2. \end{aligned}$$

$$\begin{aligned} 24447 &= F(2 \times 4 \times 4 - 4)/F(7) \\ &= F(7 \times 4)/(F(4) \times 4 + F(2)). \end{aligned}$$

$$\begin{aligned} 24649 &= -F(2) + (F(4)^6 - 4) \times F(9) \\ &= (F(9) \times F(4) + F(6+4))^2. \end{aligned}$$

$$\begin{aligned} 25368 &= 2 \times (F(5 \times 3) - 6) \times F(8) \\ &= F(8) \times (-6 + F(3 \times 5)) \times 2. \end{aligned}$$

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

$$\begin{aligned} 27783 &= (2 + 7/7) \times F(8)^3 \\ &= 3 \times F(8)^{7/7+2}. \end{aligned}$$

$$\begin{aligned} 28547 &= -F(2) + (8+5)^4 - F(7) \\ &= F(7)^4 + 5 - F(8) + 2. \end{aligned}$$

$$\begin{aligned} 28623 &= F(2 \times 8) \times (6+23) \\ &= (3+26) \times F(8 \times 2). \end{aligned}$$

$$\begin{aligned} 28624 &= F(2) + (F(8) + F(6)) \times F(2^4) \\ &= F(4^2) \times (F(6) + F(8)) + F(2). \end{aligned}$$

$$\begin{aligned} 28635 &= -F(2) - F(8) + F(6 \times 3 + 5) \\ &= F(5 + 3 \times 6) - F(8) - F(2). \end{aligned}$$

$$\begin{aligned} 28641 &= -2 \times 8 + F(6 \times 4 - 1) \\ &= F(-1 + 4 \times 6) - 8 \times 2. \end{aligned}$$

$$\begin{aligned} 28644 &= (-F(2) + 8) \times (F(6)^4 - 4) \\ &= (-4 + 4^6) \times (8 - F(2)). \end{aligned}$$

$$\begin{aligned} 28654 &= F(2 \times (8+6) - 5) - F(4) \\ &= -F(4) + F(-5 + (6+8) \times 2). \end{aligned}$$

$$\begin{aligned} 28655 &= -2 + F(8 \times 6 - 5 \times 5) \\ &= F(5 \times 5 + 6 - 8) - 2. \end{aligned}$$

$$\begin{aligned} 28657 &= F(2 + (-8+6+5) \times 7) \\ &= F(7 \times 5 - 6 - 8 + 2). \end{aligned}$$

$$\begin{aligned} 28659 &= 2 + F((8-6)^5 - 9) \\ &= F(-9 \times 5 + 68) + 2. \end{aligned}$$

$$\begin{aligned} 28678 &= F(2 + 8 + 6 + 7) + F(8) \\ &= F(8) + F(7 + 6 + 8 + 2). \end{aligned}$$

$$\begin{aligned} 29267 &= (-2 + 9) \times F(2 \times 6 + 7) \\ &= 7 \times F(6 + 2 + 9 + 2). \end{aligned}$$

$$\begin{aligned} 29988 &= (F(2) \times F(9) + F(9)) \times F(8) \times F(8) \\ &= F(8) \times (8 + F(9)) \times F(9) \times F(2). \end{aligned}$$

$$\begin{aligned} 32496 &= (F(3 \times 2)^4 - F(9)) \times F(6) \\ &= F(6) \times (-F(9) + 4^{2 \times 3}). \end{aligned}$$

$$\begin{aligned} 32696 &= (F(3)^{2 \times 6} - 9) \times F(6) \\ &= -F(6) \times 9 + F(6)^{2+3}. \end{aligned}$$

$$\begin{aligned} 32736 &= (-F(3) + F((2+7) \times 3))/6 \\ &= (-F(6) + F(3)^{F(7)}) \times (2 + F(3)). \end{aligned}$$

$$\begin{aligned} 32739 &= 3 \times (F(2) + F(7 \times 3) - F(9)) \\ &= (-F(9) + F(3 \times 7) + F(2)) \times 3. \end{aligned}$$

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

$$\begin{aligned} 32758 &= -F(3) + (F(2) + 7)^5 - 8 \\ &= 8^5 + F(7) - 23. \end{aligned}$$

$$\begin{aligned} 32772 &= (2^{7+7} + 2) \times F(3) \\ &= F(3) \times (2^{7+7} + 2). \end{aligned}$$

$$\begin{aligned} 32838 &= 3 \times F(2 \times 8 - 3 + 8) \\ &= F(8 + 3 + 8) + F(23). \end{aligned}$$

$$\begin{aligned} 32856 &= 3 \times (F(2 \times 8 + 5) + 6) \\ &= (6 + F(5 + 8 \times 2)) \times 3. \end{aligned}$$

$$\begin{aligned} 32937 &= 3 \times (-F(2) + F(9) + F(3 \times 7)) \\ &= (F(7 \times 3) + F(9) - F(2)) \times 3. \end{aligned}$$

$$\begin{aligned} 33286 &= F(3 \times 3) \times (F(2 \times 8) - F(6)) \\ &= (-F(6) + F(8 \times 2)) \times F(3 \times 3). \end{aligned}$$

$$\begin{aligned} 33446 &= -F(3) + F(3 + 4 \times 4) \times F(6) \\ &= F(6) \times F(4 \times 4 + 3) - F(3). \end{aligned}$$

$$\begin{aligned} 33552 &= F(2 \times 5) \times F(5 \times 3) + F(3) \\ &= F(3) + F(3 \times 5) \times F(5 \times 2). \end{aligned}$$

$$\begin{aligned} 33592 &= (F(3+3) + 5) \times F(9 \times 2) \\ &= F(2 \times 9) \times (5 + F(3+3)). \end{aligned}$$

$$\begin{aligned} 33618 &= (F(3) + F(3 \times 6)) \times F(-1 + 8) \\ &= F(8 - 1) \times (F(6 \times 3) + F(3)). \end{aligned}$$

$$\begin{aligned} 39298 &= F(3) + F(9)^2 \times F(9) - 8 \\ &= -8 + F(9)^2 \times F(9) + F(3). \end{aligned}$$

$$\begin{aligned} 33647 &= 3 + (F(3 \times 6) + 4) \times F(7) \\ &= F(7) \times (4 + F(6 \times 3)) + 3. \end{aligned}$$

$$\begin{aligned} 39302 &= -3 + F(9)^3 + F(02) \\ &= -2 + F(0 \times 3 + 9)^3. \end{aligned}$$

$$\begin{aligned} 33667 &= -3 + (F(3 \times 6) + 6) \times F(7) \\ &= F(7) \times (6 + F(6 \times 3)) - 3. \end{aligned}$$

$$\begin{aligned} 39303 &= F(3) + F(9)^3 - 03 \\ &= -3/03 + F(9)^3. \end{aligned}$$

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

$$\begin{aligned} 39306 &= F(3) + F(9)^{3+0 \times 6} \\ &= -60 + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 35421 &= F(3) \times F(5 \times 4 + 2) - 1 \\ &= -1 + F(2 + 4 \times 5) \times F(3). \end{aligned}$$

$$\begin{aligned} 39307 &= 3 + F(9)^{3+0 \times 7} \\ &= 7 \times 0 + 3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 35422 &= F(3) \times (5 - 4) \times F(22) \\ &= 2 \times F(24 - 5 + 3). \end{aligned}$$

$$\begin{aligned} 39315 &= 3 + F(9)^3 + F(1 + 5) \\ &= -51 + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 35937 &= (-F(-3 + 5) + F(9))^{F(-3+7)} \\ &= ((F(7) - F(3)) \times F(9 - 5))^3. \end{aligned}$$

$$\begin{aligned} 39316 &= 3 + F(9)^3 + 1 + F(6) \\ &= 6 \times (-1 + 3) + F(9)^3. \end{aligned}$$

$$\begin{aligned} 36173 &= F(3 \times 6) \times (1 + F(7)) - 3 \\ &= -3 + (F(7) + 1) \times F(6 \times 3). \end{aligned}$$

$$\begin{aligned} 39323 &= -F(3) + F(9)^3 + F(2^3) \\ &= -F(3) + F(2^3) + F(9)^3. \end{aligned}$$

$$\begin{aligned} 36176 &= F(3 \times 6) \times (1 + 7 + 6) \\ &= (6 + 7 + 1) \times F(6 \times 3). \end{aligned}$$

$$\begin{aligned} 39327 &= -3 + F(9)^3 + 2 \times F(7) \\ &= F(7) \times 2 - 3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 36288 &= 36 \times (F(2 \times 8) + F(8)) \\ &= F(8) \times (8 - 2 + 6)^3. \end{aligned}$$

$$\begin{aligned} 39328 &= F(3) + F(9)^3 + F(2) + F(8) \\ &= F(8 - 2) \times 3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 38448 &= F(3 + 8) \times F(4) \times F(4 + 8) \\ &= F(8 + 4) \times F(4) \times F(8 + 3). \end{aligned}$$

$$\begin{aligned} 39332 &= 3^9 \times F(3) - F(3^2) \\ &= F(2) + 3^3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 38763 &= 3 + (8 + 7) \times F(6 \times 3) \\ &= (F((3 \times 6)) \times (7 + 8)) + 3. \end{aligned}$$

$$\begin{aligned} 39333 &= 3^9 \times F(3) - 33 \\ &= -33 + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 39239 &= 3 + (F(9)^2 - F(3)) \times F(9) \\ &= (F(9)^{F(3)} - 2) \times F(9) + 3. \end{aligned}$$

$$\begin{aligned} 39334 &= 3 + F(9)^3 + 3^{F(4)} \\ &= -4 + F(3 \times 3) + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39284 &= (F(3 \times 9) + 2)/(8 - F(4)) \\ &= -4 - 8 \times 2 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39336 &= -F(3) + F(9)^3 + F(3 + 6) \\ &= F(6 + 3)^3 + F(9) - F(3). \end{aligned}$$

$$\begin{aligned} 39296 &= -F(3) + F(9)^2 \times F(9) - 6 \\ &= -6 + F(9)^2 \times F(9) - F(3). \end{aligned}$$

$$\begin{aligned} 39348 &= 3^9 \times F(3) + F(4) - F(8) \\ &= -F(8) + F(4) + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 39374 &= F(3) \times (9 \times 3^7 + 4) \\ &= (4 + F(7 - 3)^9) \times F(3). \end{aligned}$$

$$\begin{aligned} 43757 &= 4 \times (F(3 \times 7) - 5) - 7 \\ &= -7 + (-5 + F(7 \times 3)) \times 4. \end{aligned}$$

$$\begin{aligned} 39377 &= F(39/3) \times F(7) \times F(7) \\ &= F(7) \times F(7) \times F(39/3). \end{aligned}$$

$$\begin{aligned} 43758 &= 4 \times (F(3 \times 7) - 5) - F(8) \\ &= -F(8) - 5 + F(7 \times 3) \times 4. \end{aligned}$$

$$\begin{aligned} 39384 &= 3^9 \times F(3) + F(8) - F(4) \\ &= (F(4)^8 + 3) \times (9 - 3). \end{aligned}$$

$$\begin{aligned} 43771 &= -1 \times F(7) + F(7 \times 3) \times 4 \\ &= 4 \times F(3 \times 7) - F(7) \times 1. \end{aligned}$$

$$\begin{aligned} 39387 &= 3^9 \times F(3) + 8 + F(7) \\ &= F(7) + 8 + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 43784 &= 4 \times F(3 \times 7) \times F(8/4) \\ &= 4 \times F((87 - 3)/4). \end{aligned}$$

$$\begin{aligned} 39394 &= -3 + 93 + F(9)^{F(4)} \\ &= (-4 + F(9)) \times 3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 43786 &= 4 \times F(3 \times 7) + 8 - 6 \\ &= -6 + 8 + F(7 \times 3) \times 4. \end{aligned}$$

$$\begin{aligned} 39395 &= 3^9 \times F(3) + F(9) - 5 \\ &= -5 + F(9) + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 43788 &= 4 \times (F(3 \times 7) + 8/8) \\ &= (8/8 + F(7 \times 3)) \times 4. \end{aligned}$$

$$\begin{aligned} 39396 &= F(3) \times (9 + 3^9 + 6) \\ &= (6 + 9 + 3^9) \times F(3). \end{aligned}$$

$$\begin{aligned} 43792 &= 4 \times F(3 \times 7) + 9 - F(2) \\ &= (2 + F(9 \times 7/3)) \times 4. \end{aligned}$$

$$\begin{aligned} 39397 &= F(3) \times (9 + 3^9) + F(7) \\ &= F(7) + (9 + 3^9) \times F(3). \end{aligned}$$

$$\begin{aligned} 43796 &= 4 \times (3 + F(7 \times (9 - 6))) \\ &= (-6 + 9 + F(7 \times 3)) \times 4. \end{aligned}$$

$$\begin{aligned} 39398 &= (3 + F(9)^{F(3)}) \times F(9) - 8 \\ &= -8 + F(9) \times 3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 43923 &= F(4) \times (F(3) + 9)^{2 \times F(3)} \\ &= 3 \times (F(2) \times 9 + F(3))^4. \end{aligned}$$

$$\begin{aligned} 39434 &= F(3) \times (F(9) + F(4)^{3 \times F(4)}) \\ &= (F(4)^{3 \times F(4)} + F(9)) \times F(3). \end{aligned}$$

$$\begin{aligned} 44898 &= (-4 + F(4) \times F(8) \times F(9)) \times F(8) \\ &= F(8) \times (F(9) \times F(8) \times F(4) - 4). \end{aligned}$$

$$\begin{aligned} 39474 &= F(3) \times 9 \times (-4 + F(7)^{F(4)}) \\ &= (-4 + F(7)^{F(4)}) \times 9 \times F(3). \end{aligned}$$

$$\begin{aligned} 44924 &= 44 \times (F(9) + F(2^4)) \\ &= (F(4^2) + F(9)) \times 44. \end{aligned}$$

$$\begin{aligned} 42441 &= (-1 + 44) \times F(2^4) \\ &= F(4^2) \times (44 - 1). \end{aligned}$$

$$\begin{aligned} 46096 &= F(4 \times 6) - F(09) \times F(6) \\ &= -F(6) \times F(9) + F(06 \times 4). \end{aligned}$$

$$\begin{aligned} 42699 &= (F(4^2) + 6) \times (9 + F(9)) \\ &= (9 + F(9)) \times (6 + F(2^4)). \end{aligned}$$

$$\begin{aligned} 46179 &= F(4 \times 6) - F(1 + 7) \times 9 \\ &= -9 \times F(7 + 1) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 43736 &= 4 \times (F(3 \times 7) - F(3) \times 6) \\ &= (-6 \times F(3) + F(7 \times 3)) \times 4. \end{aligned}$$

$$\begin{aligned} 46208 &= F(4 \times 6) - 20 \times 8 \\ &= -80 \times 2 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 43756 &= 4 \times (F(3 \times 7) - 5) - F(6) \\ &= -F(6) + (-5 + F(7 \times 3)) \times 4. \end{aligned}$$

$$\begin{aligned} 46224 &= F(4 \times 6) - F(2 \times (2 + 4)) \\ &= -F((4 + 2) \times 2) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46226 &= F(4 \times 6) + 2 - F(2 \times 6) \\ &= -F(6 \times 2) + 2 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46332 &= F(4 \times 6) - (3 + 3)^2 \\ &= -2 - F(3 \times 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46277 &= F(4 \times 6) - F(2) \times F(7) \times 7 \\ &= -7 \times F(7) \times F(2) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46333 &= F(4 \times 6) - F(3) - 33 \\ &= -33 - F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46283 &= -3 - 82 + F(6 \times 4) \\ &= F(4 \times 6) - 2 - 83. \end{aligned}$$

$$\begin{aligned} 46334 &= F(4 \times 6) - F(-3 + 3 \times 4) \\ &= -F(4 \times 3 - 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46284 &= F(4 \times 6) \times F(2) - 84 \\ &= -4 \times F(8) \times F(2) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46336 &= F(4 \times 6) + F(3) - F(3 + 6) \\ &= -F(6) \times F(3) \times F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46285 &= F(4 \times 6) + 2 - 85 \\ &= 5 \times (F(8)^{F(-2+6)} - 4). \end{aligned}$$

$$\begin{aligned} 46338 &= -(4 + 6) \times 3 + F(3 \times 8) \\ &= F(8 \times 3) - 3 \times (6 + 4). \end{aligned}$$

$$\begin{aligned} 46288 &= F(4 \times 6) - (2 + 8) \times 8 \\ &= -8 \times (8 + 2) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46339 &= F(4 \times 6) - F(3) - 3 \times 9 \\ &= -9 \times 3 - F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46294 &= F(4 \times 6) - 2 \times (F(9) + F(4)) \\ &= -(F(4) + F(9)) \times 2 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46341 &= F(4 \times 6) - 3^{4-1} \\ &= -1 \times F(4)^3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46295 &= F(4 \times 6) - 2 \times F(9) - 5 \\ &= -5 - F(9) \times 2 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46342 &= F(4 \times 6) - F(3 + 4) \times 2 \\ &= F(24) - F(3) - 6 \times 4. \end{aligned}$$

$$\begin{aligned} 46296 &= F(4 \times 6) - F(2) \times 9 \times F(6) \\ &= -F(6) \times 9 \times F(2) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46343 &= F(4 \times 6) - (F(3) + F(4))^{F(3)} \\ &= F(3) - F(4)^3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46298 &= F(4 \times 6) + 2 - 9 \times 8 \\ &= -8 \times 9 + 2 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46344 &= F((4 + 4) \times 3) - 6 \times 4 \\ &= F(4 \times 6) - 3 \times (4 + 4). \end{aligned}$$

$$\begin{aligned} 46299 &= F(4 \times 6) - F(2) - F(9) - F(9) \\ &= -F(9) - F(9) - F(2) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46345 &= F(4 \times 6) - 3 - 4 \times 5 \\ &= -5 \times 4 - 3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46313 &= F(4 \times 6) - F(-3 + 13) \\ &= -F(-3 + 13) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46346 &= F(4 \times 6) + F(3) - 4 \times 6 \\ &= F(6 \times 4) - 3 \times 6 - 4. \end{aligned}$$

$$\begin{aligned} 46324 &= -46 + F(3) + F(24) \\ &= -42 - F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46347 &= F(4 \times 6) - 34 + F(7) \\ &= -F(7 + 4 - 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46328 &= F(4 \times 6) - 32 - 8 \\ &= -8 \times (2 + 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46352 &= F(4 \times 6) - (3 + 5) \times 2 \\ &= -2 \times (5 + 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46329 &= F(4 \times 6) - 3 - 2 - F(9) \\ &= -F(9 - 2) \times 3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46354 &= F(4 \times 6) - F(3) \times 5 - 4 \\ &= -4 - 5 \times F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46355 &= F(4 \times 6) - 3 - 5 - 5 \\ &= -5 - 5 - 3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46399 &= -F(4) + F(6^3/9) + F(9) \\ &= F(9) - 9/3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46356 &= F(4 \times 6) + (3 - 5) \times 6 \\ &= 6 \times (-5 + 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46404 &= F(4 \times 6) + 40 - 4 \\ &= 40 - 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46357 &= F(4 \times 6) - 3 + 5 - F(7) \\ &= -F(7) + 5 - 3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46407 &= F(4 \times 6) + F(4) \times F(07) \\ &= F(7) \times F(04) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46358 &= F(4 \times 6) + 3 - 5 - 8 \\ &= -8 - 5 + 3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46419 &= -4 + F(6 \times 4) + F(1 + 9) \\ &= F(9 + 1) - 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46359 &= -F(4) - 6 + F(3 \times 5 + 9) \\ &= -9 \times F(5 - 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46423 &= F(4 \times 6) + F(4 + 2 \times 3) \\ &= F(3 \times 2 + 4) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46371 &= 1^7 \times 3 + F(6 \times 4) \\ &= F(4) + F(6 \times 3 + 7 - 1). \end{aligned}$$

$$\begin{aligned} 46428 &= F(4 \times 6) - F(4) \times (F(2) - F(8)) \\ &= 8^2 - 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46376 &= F(4 \times 6) + 3 + F(7) - F(6) \\ &= -6 + 7 \times F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46432 &= (F(4 \times 6) + 4^3) \times F(2) \\ &= (F(2) + 3)^{F(4)} + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46377 &= F(4 \times 6) + 3 - 7 + F(7) \\ &= F(7) - 7 + 3 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46436 &= 4 + F(6 \times 4) + F(3)^6 \\ &= F(6)^{F(3)} + 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46378 &= F(4 \times 6) + F(3) - F(7) + F(8) \\ &= (-8 + F(7)) \times F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46439 &= F(4) + F(6 \times 4) + F(3) \times F(9) \\ &= F(9) \times F(3) + F(4) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46391 &= F(4 \times 6) + F(3) + F(9 - 1) \\ &= F(-1 + 9) + F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46448 &= -4 + F(6 \times 4) + 4 \times F(8) \\ &= 84 - 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46392 &= F(4 \times 6) + F((3 + 9) \times 2) \\ &= 2 \times (9 + 3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46449 &= F(4 \times 6) + F(4) \times F(4) \times 9 \\ &= (9/F(4))^4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46393 &= F(4 \times 6) - F(3) + 9 \times 3 \\ &= 3 \times 9 - F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46472 &= F(4 \times 6) + 4 \times F(7) \times 2 \\ &= 2 \times F(7) \times 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46394 &= F(4 \times 6) + F(3) \times (9 + 4) \\ &= (4 + 9) \times F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46476 &= 4 + F(6 \times 4) + F(7) \times F(6) \\ &= F(6) \times F(7) + 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46395 &= F(4 \times 6) - F(3) + F(9) - 5 \\ &= -5 + F(9) - F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46478 &= F(4 \times 6) + F(4 + 7) + F(8) \\ &= F(8) + F(7 + 4) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46396 &= F(4 \times 6) + F(3) + F(9) - F(6) \\ &= -F(6) + F(9) + F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46487 &= F(4 \times 6) + (-4 + F(8)) \times 7 \\ &= 7 \times (F(8) - 4) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46397 &= F(4 \times 6) + F(3) + F(9) - 7 \\ &= -7 + F(9) + F(3) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46488 &= ((F(4) \times 6)^{F(4)} - F(8)) \times 8 \\ &= 8 \times (-F(8) + (F(4) \times 6)^{F(4)}). \end{aligned}$$

$$\begin{aligned} 46645 &= 4 + 6^6 - F(4) \times 5 \\ &= -5 \times F(4) + 6^6 + 4. \end{aligned}$$

$$\begin{aligned} 46496 &= F(4 \times 6) + 4 \times F(9) - F(6) \\ &= -F(6) + F(9) \times 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46646 &= -4 + (6 \times 6)^{F(4)} - 6 \\ &= -6 - 4 + (6 \times 6)^{F(4)}. \end{aligned}$$

$$\begin{aligned} 46497 &= F(4 \times 6) + 4 \times F(9) - 7 \\ &= -7 + F(9) \times 4 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46647 &= 4 + (6 \times 6)^{F(4)} - F(7) \\ &= -F(7) + 4 + (6 \times 6)^{F(4)}. \end{aligned}$$

$$\begin{aligned} 46512 &= F(4 \times 6) + F((5+1) \times 2) \\ &= F(2 \times (1+5)) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46653 &= -4 + 6^6 + F(5-3) \\ &= (3-5+F(6))^6 - F(4). \end{aligned}$$

$$\begin{aligned} 46533 &= F(4 \times 6) + 5 \times 33 \\ &= 33 \times 5 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46654 &= -4 + 6^6 + 5 - F(4) \\ &= -4 + 5 + 6^6 - F(4). \end{aligned}$$

$$\begin{aligned} 46536 &= F(4 \times 6) + F(5+3) \times F(6) \\ &= F(6) \times F(3+5) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46657 &= F(4) + 6^6 + 5 - 7 \\ &= -7 + 5 + 6^6 + F(4). \end{aligned}$$

$$\begin{aligned} 46566 &= -F(4) \times 6 \times 5 + 6^6 \\ &= 6^6 - 5 \times 6 \times F(4). \end{aligned}$$

$$\begin{aligned} 46658 &= 4 + 6^6 - F(-5+8) \\ &= F(8-5) + (6 \times 6)^{F(4)}. \end{aligned}$$

$$\begin{aligned} 46618 &= -4 + 6^6 - F(1+8) \\ &= -F(8+1) + 6^6 - 4. \end{aligned}$$

$$\begin{aligned} 46659 &= F(4) + 6^{F(6) \times 5 - F(9)} \\ &= (9+5-F(6))^6 + F(4). \end{aligned}$$

$$\begin{aligned} 46619 &= -4 + 6^6 + 1 - F(9) \\ &= -F(9) \times 1 + 6^6 - F(4). \end{aligned}$$

$$\begin{aligned} 46671 &= F(4) + 6^6 + F(7) - 1 \\ &= -1 + F(7) + 6^6 + F(4). \end{aligned}$$

$$\begin{aligned} 46624 &= F(4 \times 6) + (6-2)^4 \\ &= 4 \times 2^6 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46672 &= (F(4) + 6^6 + F(7)) \times F(2) \\ &= F(2) \times F(7) + 6^6 + F(4). \end{aligned}$$

$$\begin{aligned} 46627 &= -F(4) + 6^6 - 2 \times F(7) \\ &= -F(7) \times 2 + 6^6 - F(4). \end{aligned}$$

$$\begin{aligned} 46674 &= -F(4) + 6^6 + 7 \times F(4) \\ &= F(4) \times 7 + 6^6 - F(4). \end{aligned}$$

$$\begin{aligned} 46636 &= 4 + 6^6 - 3 \times F(6) \\ &= -F(6) \times 3 + 6^6 + 4. \end{aligned}$$

$$\begin{aligned} 46679 &= -4 + 6^6 - 7 + F(9) \\ &= F(9) - 7 + 6^6 - 4. \end{aligned}$$

$$\begin{aligned} 46637 &= -4 + 6^6 - F(3) - F(7) \\ &= F(7) + F(3)^{F(6)} + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46779 &= F(4 \times 6) + F(7+7) + F(9) \\ &= F(9) + F(7+7) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46638 &= F(4) + (6 \times 6)^3 - F(8) \\ &= (8 - F(3))^6 - 6 \times F(4). \end{aligned}$$

$$\begin{aligned} 46784 &= F(4 \times 6) + F(7) \times 8 \times 4 \\ &= 4 \times 8 \times F(7) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46643 &= F(4) + 6^6 - 4^{F(3)} \\ &= -3 \times F(4) + 6^6 - 4. \end{aligned}$$

$$\begin{aligned} 46797 &= F(4 \times 6) + F(7) \times F(9) - F(7) \\ &= F(7) \times F(9) - F(7) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46866 &= (4 + 6) \times F(8) + 6^6 \\ &= 6^6 + F(8) \times (6 + 4). \end{aligned}$$

$$\begin{aligned} 46944 &= F(4 \times 6) + 9 \times 4^{F(4)} \\ &= 4^{F(4)} \times 9 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46969 &= F(4 \times 6) - 9 + F(6 + 9) \\ &= -9 + F(6 + 9) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46987 &= F(4 \times 6) + 9 + F(8 + 7) \\ &= F(7 + 8) + 9 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 47345 &= 4 + 7 \times (-F(3) + F(4 \times 5)) \\ &= (F(5 \times 4) - F(3)) \times 7 + 4. \end{aligned}$$

$$\begin{aligned} 49152 &= F(4) \times (9 - 1)^5 / 2 \\ &= 2^{5 \times 1 + 9} \times F(4). \end{aligned}$$

$$\begin{aligned} 49164 &= (F(4) + 9) \times (1 + F(6)^4) \\ &= (4^6 + 1) \times (9 + F(4)). \end{aligned}$$

$$\begin{aligned} 54136 &= (F(5 \times 4) + 1 \times F(3)) \times F(6) \\ &= F(6) \times (F(3) + F(1 \times 4 \times 5)). \end{aligned}$$

$$\begin{aligned} 54298 &= (F(5 + 4) \times F(2)) \times F(9 + 8) \\ &= F(8 + 9) \times F(2) \times F(4 + 5). \end{aligned}$$

$$\begin{aligned} 54336 &= (F(5 \times 4) + 3^3) \times F(6) \\ &= F(6) \times (3^3 + F(4 \times 5)). \end{aligned}$$

$$\begin{aligned} 54696 &= (F(5 \times 4) + F(6) \times 9) \times F(6) \\ &= F(6) \times (9 \times F(6) + F(4 \times 5)). \end{aligned}$$

$$\begin{aligned} 54737 &= 5 \times (4 + F(7 \times 3)) - F(7) \\ &= -F(7) + (F(3 \times 7) + 4) \times 5. \end{aligned}$$

$$\begin{aligned} 54936 &= (F(5 \times 4) + F(9) \times 3) \times F(6) \\ &= F(6) \times (3 \times F(9) + F(4 \times 5)). \end{aligned}$$

$$\begin{aligned} 55924 &= -5^5 + 9^{F(2)+4} \\ &= F(4)^{F(2)+9} - 5^5. \end{aligned}$$

$$\begin{aligned} 59057 &= -5 + 9^{05} + F(7) \\ &= F(7) - 5 + 09^5. \end{aligned}$$

$$\begin{aligned} 62896 &= (F(6) \times F(2 \times 8) - F(9)) \times F(6) \\ &= F(6) \times (-F(9) + F(8 \times 2) \times F(6)). \end{aligned}$$

$$\begin{aligned} 63376 &= F(6) \times F(3 \times 3) \times F(7 + 6) \\ &= F(6 + 7) \times F(3 \times 3) \times F(6). \end{aligned}$$

$$\begin{aligned} 63424 &= F(6)^{F(3)} \times (4 + F(2^4)) \\ &= (4 + F(2^4)) \times F(3)^6. \end{aligned}$$

$$\begin{aligned} 64847 &= -F(6) + (4 + F(8)^{F(4)}) \times 7 \\ &= 7 \times (4 + F(8)^{F(4)}) - F(6). \end{aligned}$$

$$\begin{aligned} 65447 &= -F(6 + 5) + 4 \times 4^7 \\ &= (F(7) + F(4))^4 - F(5 + 6). \end{aligned}$$

$$\begin{aligned} 65533 &= F(6)^5 \times (5 - 3) - 3 \\ &= -3 + F(3)^{5+5+6}. \end{aligned}$$

$$\begin{aligned} 65673 &= -F(6) + 5 + 6 \times F(7 \times 3) \\ &= F(3 \times 7) \times 6 + 5 - F(6). \end{aligned}$$

$$\begin{aligned} 68796 &= (F(6) + F(9)) \times F(7) \times F(8) \times 6 \\ &= 6 \times F(8) \times F(7) \times (F(9) + F(6)). \end{aligned}$$

$$\begin{aligned} 69626 &= -6 + F(9) \times F(6) \times 2^{F(6)} \\ &= -6 + 2^{F(6)} \times F(9) \times F(6). \end{aligned}$$

$$\begin{aligned} 69638 &= 6 + F(9) \times F(6) \times F(3)^8 \\ &= 8 \times F(3)^{F(6)} \times F(9) + 6. \end{aligned}$$

$$\begin{aligned} 69972 &= (F(6) + F(9)) \times F(9) \times 7^2 \\ &= (F(2 \times 7) - F(9)) \times F(9) \times 6. \end{aligned}$$

$$\begin{aligned} 69984 &= 6 \times 9 \times 9 \times F(8 + 4) \\ &= F(4 + 8) \times 9 \times 9 \times 6. \end{aligned}$$

$$\begin{aligned} 73739 &= -7 + (F(3)^{F(7)} + F(3)) \times 9 \\ &= 9 \times F(3)^{F(7)} - F(3) + F(7). \end{aligned}$$

$$\begin{aligned} 74415 &= (7 + 4) \times F(4 \times 1 \times 5) \\ &= F(5 \times 1 \times 4) \times (4 + 7). \end{aligned}$$

$$\begin{aligned} 74752 &= -F(7) \times F(4) \times 7 + F(5^2) \\ &= F(25) - F(7) \times F(4) \times 7. \end{aligned}$$

$$\begin{aligned} 74795 &= (F(7) + F(4)^7) \times F(9) - 5 \\ &= -5 + F(9) \times (F(7) + F(4)^7). \end{aligned}$$

$$\begin{aligned} 74878 &= F(-7 + 4 \times 8) - 7 \times F(8) \\ &= -F(8) \times 7 + F(8 \times 4 - 7). \end{aligned}$$

$$\begin{aligned} 74936 &= (-7 + 4 \times 9) \times F(3 \times 6) \\ &= F(6 \times 3) \times (9 \times 4 - 7). \end{aligned}$$

$$\begin{aligned} 74952 &= -F(7) \times F(4) - F(9) + F(5^2) \\ &= F(25) - F(9) - F(4) \times F(7). \end{aligned}$$

$$\begin{aligned} 74997 &= -7 \times 4 + F(9 + 9 + 7) \\ &= F(7 + 9 + 9) - 4 \times 7. \end{aligned}$$

$$\begin{aligned} 75012 &= -F(7) + F((5 \times 01)^2) \\ &= F(2 \times 10 + 5) - F(7). \end{aligned}$$

$$\begin{aligned} 75025 &= F(7 \times 5 \times 0 + 25) \\ &= F(5^{2 \times 0 - 5 + 7}). \end{aligned}$$

$$\begin{aligned} 75026 &= -7 + F(5^{02}) + F(6) \\ &= -6 + F(20 + 5) + 7. \end{aligned}$$

$$\begin{aligned} 75029 &= F(7) + F(5^{02}) - 9 \\ &= -9 + F(20 + 5) + F(7). \end{aligned}$$

$$\begin{aligned} 75032 &= 7 + F(5^{0 \times 3 + 2}) \\ &= F((2 + 3) \times 05) + 7. \end{aligned}$$

$$\begin{aligned} 75038 &= F(7) + F(5 \times (-03 + 8)) \\ &= F((8 - 3) \times 05) + F(7). \end{aligned}$$

$$\begin{aligned} 76398 &= (F(7) \times F(6) + 3) \times F(9) \times F(8) \\ &= F(8) \times F(9) \times (3 + F(6) \times F(7)). \end{aligned}$$

$$\begin{aligned} 76622 &= 7 \times F((6 + 6^2)/2) \\ &= F(22 - 6/6) \times 7. \end{aligned}$$

$$\begin{aligned} 76678 &= 7 \times (F(6) + F(6 + 7 + 8)) \\ &= (F(8 + 7 + 6) + F(6)) \times 7. \end{aligned}$$

$$\begin{aligned} 76853 &= -7 + 6 \times F(8) \times F(5 \times 3) \\ &= F(3 \times 5) \times F(8) \times 6 - (7). \end{aligned}$$

$$\begin{aligned} 76978 &= F(7) \times 6 \times F(9 + 7) - 8 \\ &= -8 + F(7 + 9) \times 6 \times F(7). \end{aligned}$$

$$\begin{aligned} 78735 &= (F(7) - 8)^7 + F(3 \times 5) \\ &= F(5 \times 3) + (F(7) - 8)^7. \end{aligned}$$

$$\begin{aligned} 79947 &= F(7 + 9) \times (F(9) + 47) \\ &= (F(7) - 4) \times 9 \times F(9 + 7). \end{aligned}$$

$$\begin{aligned} 79968 &= (F(7) \times F(9) + F(9)) \times F(6) \times F(8) \\ &= 8 \times (F(6) + F(9)) \times F(9) \times 7. \end{aligned}$$

$$\begin{aligned} 82936 &= (8 \times (2 + F(9)))^{F(3)} - F(6) \\ &= (F(6) \times (F(3) + F(9)))^2 - 8. \end{aligned}$$

$$\begin{aligned} 83349 &= F(8)^3 \times 3^4 / 9 \\ &= (9 \times (4 + 3))^{F(3)} \times F(8). \end{aligned}$$

$$\begin{aligned} 85764 &= F(8) \times (-5 - 7 + F(6)^4) \\ &= (4^6 - 7 - 5) \times F(8). \end{aligned}$$

$$\begin{aligned} 86919 &= (-F(9) + F(19) - F(6)) \times F(8) \\ &= F(8) \times (-F(6) - F(9) + F(19)). \end{aligned}$$

$$\begin{aligned} 87387 &= (-F(8) + F(7 \times 3)) \times 8 - F(7) \\ &= -F(7) + (-F(8) + F(3 \times 7)) \times 8. \end{aligned}$$

$$\begin{aligned} 87639 &= F(8) + (-7 + F(6 \times 3)) \times F(9) \\ &= F(9) \times (F(3 \times 6) - 7) + F(8). \end{aligned}$$

$$\begin{aligned} 87672 &= 8 \times (F(7) + F(6 \times 7/2)) \\ &= (F(27 - 6) + F(7)) \times 8. \end{aligned}$$

$$\begin{aligned} 87736 &= 8 + F(7) + F(7 \times 3) \times F(6) \\ &= (F(6) + F(3 \times 7) + F(7)) \times 8. \end{aligned}$$

$$\begin{aligned} 87856 &= (F(8) + F(7)) \times F((8 - 5) \times 6) \\ &= F(6 \times (-5 + 8)) \times (F(7) + F(8)). \end{aligned}$$

$$\begin{aligned} 87937 &= -8 + F(7) \times F(9 \times 3 - 7) \\ &= F(7) \times F(3 \times 9 - 7) - 8. \end{aligned}$$

$$\begin{aligned} 87945 &= (-8 - F(7) + F(9)) \times F(4 \times 5) \\ &= F(5 \times 4) \times (F(9) - F(7) - 8). \end{aligned}$$

$$\begin{aligned} 88595 &= (8 + F(8 + 5 + 9)) \times 5 \\ &= 5 \times (F(9 + 5 + 8) + 8). \end{aligned}$$

$$\begin{aligned} 89964 &= F(8) \times F(9) \times (F(9) + F(6)) \times F(4) \\ &= F(4) \times (F(6) + F(9)) \times F(9) \times F(8). \end{aligned}$$

$$\begin{aligned} 91982 &= F(9 + 1 + 9) \times (F(8) + F(2)) \\ &= (F(2) + F(8)) \times F(9 + 1 + 9). \end{aligned}$$

$$\begin{aligned} 93346 &= F(9) + F(3) \times (F(3) + 4)^6 \\ &= 6^{4+3}/3 + F(9). \end{aligned}$$

$$\begin{aligned} 98325 &= 9 \times (-F(8) + F(3 \times (2 + 5))) \\ &= (F((5 + 2) \times 3) - F(8)) \times 9. \end{aligned}$$

$$\begin{aligned} 98469 &= (9 + F(6)^{F(4)}) \times F(8) \times 9 \\ &= F(9) + (8 - F(4)) \times F(4)^9. \end{aligned}$$

$$\begin{aligned} 98577 &= 9 \times (F((8 - 5) \times 7) + 7) \\ &= (7 + F(7 \times (-5 + 8))) \times 9. \end{aligned}$$

$$\begin{aligned} 98586 &= 9 \times (F(8 + 5 + 8) + F(6)) \\ &= (F(6) + F(8 + 5 + 8)) \times 9. \end{aligned}$$

$$\begin{aligned} 98703 &= 9 \times (F(8) + F(7 \times 03)) \\ &= (F(3 \times 07) + F(8)) \times 9. \end{aligned}$$

6.2 Digit's Order

$$\begin{aligned}
245 &= 2 + F(4)^5. & 10936 &= -10 + F(9 \times 3 - 6). \\
256 &= 2^5 \times F(6). & 10946 &= F(10 + 9 - 4 + 6). \\
1042 &= F(10) + F(4^2). & 11177 &= -1 - 1 + F(17) \times 7. \\
1293 &= F(12) \times 9 - 3. & 11489 &= (1 + (1 + 4)^8)/F(9). \\
1429 &= 1 + 42 \times F(9). & 12348 &= (F(12) + 3) \times 4 \times F(8). \\
1597 &= F(1^5 + 9 + 7). & 12384 &= F(12) \times (F(3) + 84). \\
1598 &= 1^5 + F(9 + 8). & 12672 &= F(12) \times F(6) \times (F(7) - 2). \\
1736 &= (-1 + F(7))^3 + F(6). & 12816 &= F(12) \times (81 + F(6)). \\
1763 &= -1 + (7 \times 6)^{F(3)}. & 13247 &= -1 + F(3) \times F(24)/7. \\
1976 &= 19 \times F(7) \times F(6). & 13520 &= F(1 \times 3) \times (-5 + F(20)). \\
2048 &= 2^{F(04)+8}. & 13530 &= F((1 + 3) \times 5) \times F(3) + 0. \\
2185 &= (F(21) - F(8))/5. & 13543 &= 13 + F(5 \times 4) \times F(3). \\
2736 &= (2 \times 7)^3 - F(6). & 13747 &= F(13) \times (F(7) \times 4 + 7). \\
2742 &= (2 \times 7)^{F(4)} - 2. & 13776 &= (F(13) + F(7)) \times 7 \times F(6). \\
2744 &= (-2 + F(7) + F(4))^{F(4)}. & 13823 &= -1 + (3 \times F(8 - 2))^3. \\
2746 &= (2 + 7^{F(4)}) \times F(6). & 13824 &= ((1 + 3 + 8) \times 2)^{F(4)}. \\
3178 &= F(3) \times (F(17) - 8). & 14179 &= 1 + 417 \times F(9). \\
3367 &= 3 + F(3)^{F(6)} \times F(7). & 14326 &= F(14) \times (32 + 6). \\
3584 &= (F(3) + 5) \times 8^{F(4)}. & 14373 &= F(14 + 3) \times (7 + F(3)). \\
3602 &= F(3) + 60^2. & 14739 &= (-1 + 4 \times F(7))^3/9. \\
3603 &= 3 + 60^{F(3)}. & 15448 &= F((1 + 5) \times 4)/F(4) - 8. \\
3948 &= F(3) \times 94 \times F(8). & 15456 &= F((1 + 5) \times 4)/(-5 + F(6)). \\
4197 &= F(4) + F(19) + F(7). & 15616 &= -1 + 5^6 - 1 \times F(6). \\
4198 &= -4 + F(19) + F(8). & 15625 &= 1 \times 5^{F(6)}/25. \\
4794 &= 47 \times F(9) \times F(4). & 15627 &= 1 + 5^6 + F(2)^{F(7)}. \\
6548 &= -F(6) - 5 + F(4)^8. & 15634 &= 1 \times 5^6 + 3 \times F(4). \\
6794 &= F(6 + 7) + 9^4. & 15635 &= 1 \times 5^6 + F(3) \times 5. \\
6928 &= 6 \times F(9)^2 - 8. & 15636 &= 1 \times 5^6 + 3 + F(6). \\
6933 &= 6 \times F(9)^{F(3)} - 3. & 15637 &= 1 + 5^6 - F(3) + F(7). \\
7776 &= (-7 + F(7))^{F(7)-F(6)}. & 15647 &= 1 + 5^6 + F(4) \times 7. \\
8213 &= F(8) + 2^13. & 15648 &= -1 + 5^6 + F(4) + F(8). \\
9474 &= 9^{F(4)} \times F(7) - F(4). & 15673 &= -1 + 5^6 + 7^{F(3)}. \\
9477 &= 9^{-4+7} \times F(7). & 15692 &= -1 + 5^6 + F(9) \times 2. \\
&& 15693 &= 1 \times 5^6 + F(9) \times F(3). \\
&& 15696 &= -1 + 5^6 + 9 \times F(6). \\
&& 15855 &= F(15) \times (F(8) + 5) - 5. \\
&& 16347 &= -1 - 6^{F(3)} + 4^7. \\
&& 16368 &= -16 + F(3)^{6+8}. \\
&& 16371 &= -F(1 + 6) + F(3)^{F(7)+1}. \\
&& 16372 &= -1 \times 6 + F(3)^{F(7)} \times 2.
\end{aligned}$$

$$16373 = 1 - 6 + F(3)^{F(7)} \times F(3).$$

$$16378 = -1 \times 6 + F(3)^{-7+F(8)}.$$

$$16779 = F(16) \times ((F(7) + F(7)) - 9).$$

$$16794 = -F(1+6) + 7^{9-4}.$$

$$16807 = (1+6)^{-8+F(07)}.$$

$$16815 = F(1 \times 6) + (8-1)^5.$$

$$16847 = -1 + 6^{8-4} \times F(7).$$

$$16863 = F(16) + (F(8) \times 6)^{F(3)}.$$

$$21762 = F(21) + (F(7) \times F(6))^2.$$

$$21837 = (F(21) - F(8)) \times F(3) - F(7).$$

$$21953 = F(2) + (-1 + F(9) - 5)^3.$$

$$21954 = 2 + (-1 + F(9) - 5)^{F(4)}.$$

$$22135 = 2 \times F(21) + 3^5.$$

$$22528 = (2+2)^5 \times (F(2) + F(8)).$$

$$23744 = F(23) - (F(7) + 4)^{F(4)}.$$

$$24574 = -2 - (F(4) - 5)^{F(7)} \times F(4).$$

$$17239 = 1 + F(7)^2 \times 3 \times F(9).$$

$$17399 = (1+7)^3 \times F(9) - 9.$$

$$17564 = F(17) \times (5+6) - F(4).$$

$$17568 = (-1 + F(7)^{-5+F(6)}) \times 8.$$

$$17583 = 1 \times 7 + (5 + F(8))^3.$$

$$17584 = 1 + 7 + (5 + F(8))^{F(4)}.$$

$$17622 = -F(17-6) + F(22).$$

$$17697 = -1 - F(7) + F(6+9+7).$$

$$24577 = F(2) + F(4) \times (-5+7)^{F(7)}.$$

$$26236 = (-2+6) \times (-2+3^{F(6)}).$$

$$26246 = 2 + 6^2 \times F(4)^6.$$

$$26248 = (-2+6) \times (F(2) + F(4)^8).$$

$$26984 = -2 \times F(6) + (9 + F(8))^{F(4)}.$$

$$27634 = 2 \times (-7 + (F(6) \times 3)^{F(4)}).$$

$$27644 = 2^7 \times 6^{F(4)} - 4.$$

$$27945 = (-2 + F(7) \times 9) \times F(4)^5.$$

$$17728 = 17 + F(7 \times 2 + 8).$$

$$17849 = -1 + (F(7) + 8^{F(4)}) \times F(9).$$

$$17947 = F(17) - F(9) + 4^7.$$

$$18079 = F(18) \times 07 - 9.$$

$$18177 = -F(18) + F(17) \times F(7).$$

$$18473 = F((18-4)) \times (7^{F(3)}).$$

$$18496 = (F(1+8) \times 4)^{F(9-6)}.$$

$$18523 = 1 + F(8)^{5-2} \times F(3).$$

$$28226 = 2 + F(8)^2 \times 2^6.$$

$$28562 = F(2) + (8+5)^{6-2}.$$

$$28563 = 2 + (8+5)^{F(6)/F(3)}.$$

$$28574 = F(2) \times (8+5) + F(7)^4.$$

$$28584 = 2 + F(8) + (5+8)^4.$$

$$28629 = -28 + F(-6+29).$$

$$28728 = (-2 + F(8)) \times 72 \times F(8).$$

$$28823 = -2 + 8 \times F(8) + F(23).$$

$$18970 = (-1 + 8 \times F(9)) \times 70.$$

$$19278 = 1 \times F(9) \times 27 \times F(8).$$

$$19279 = 1 + 9^2 \times 7 \times F(9).$$

$$19652 = 1 \times F(9)^{F(6)-5}/2.$$

$$19653 = 1 + F(9)^{F(6)-5}/F(3).$$

$$19772 = -1 + 9 \times F(7) \times F(7)^2.$$

$$19773 = 1 \times 9 \times F(7)^{F(7-3)}.$$

$$19774 = 1 + 9 \times F(7)^{7-4}.$$

$$28928 = 2^8 \times (92 + F(8)).$$

$$29184 = (2 + F(9+1)) \times 8^{F(4)}.$$

$$29466 = (-2 + F(9)^{F(4)}/F(6)) \times 6.$$

$$29522 = (-F(2) + 9^5)/2 - 2.$$

$$29523 = (F(2) + 9^5)/2 - F(3).$$

$$29525 = (F(2) + 9^5)/F(-2+5).$$

$$29537 = (-F(2) + 9^5)/F(3) + F(7).$$

$$29584 = (2 + F(9) \times 5)^{8/4}.$$

$$20295 = F(20) \times F(2) \times F(9-5).$$

$$20304 = (F(20) + 3) \times F(04).$$

$$20329 = F(20) \times 3 \times F(2) + F(9).$$

$$20347 = F(20) \times 3 + 4 \times F(7).$$

$$20439 = F(20) \times F(4) + F(3+9).$$

$$20484 = (F(20) + F(4) \times F(8)) \times F(4).$$

$$20692 = 20 + F(6) \times F(9 \times 2).$$

$$20736 = (-F(2) + F(07))^{-F(3)+6}.$$

$$29644 = F(29-6) + F(4 \times 4).$$

$$29793 = 2 + (9 + F(7) + 9)^3.$$

$$31248 = 31 \times (F(2^4) + F(8)).$$

$$31256 = F(3) \times (1+2+5^6).$$

$$31757 = -F(31-7) + 5^7.$$

$$31944 = (3+19)^{F(4)} \times F(4).$$

$$32734 = F(3)^{2+F(7)} - 34.$$

$$32757 = F(3) + (F(2) + 7)^5 - F(7).$$

$$32773 = F(3)^{2+F(7)} + 7 - F(3).$$

$$32774 = F(3) \times (2^{7+7} + F(4)).$$

$$32776 = F(3) \times 2^{7+7} + F(6).$$

$$32781 = F(3)^{2+F(7)} + F(8-1).$$

$$32796 = F(3)^{2+F(7)} + F(9) - 6.$$

$$32798 = F(3)^{2+F(7)} + 9 + F(8).$$

$$32844 = 3 \times (2 + F(84/4)).$$

$$32877 = 3 \times (F(28-7) + F(7)).$$

$$45783 = -45 \times F(7) + F(8 \times 3).$$

$$46124 = -4 \times 61 + F(24).$$

$$46125 = F(4 \times 6) - (1+2)^5.$$

$$46133 = F(4 \times 6) - F(13) - F(3).$$

$$46172 = F(4 \times 6) - (1 + F(7))^2.$$

$$46184 = F(4 \times 6) - 184.$$

$$46243 = F(4 \times 6) - (F(2) + 4)^3.$$

$$46256 = F(4 \times 6) - 2 \times 56.$$

$$33792 = F(3)^{3+7} \times (F(9) - F(2)).$$

$$33825 = (F(3) + 3) \times F(8/2 \times 5).$$

$$34742 = F(3) \times (4^7 + F(4^2)).$$

$$34974 = 3 \times (-4 + F(9) \times 7^{F(4)}).$$

$$34989 = 3 + 49 \times F(8) \times F(9).$$

$$35934 = (-F(-3+5) + F(9))^3 - F(4).$$

$$35987 = -3 + 59 \times F(8+7).$$

$$36193 = F(3)^{F(6)} + (-1 + F(9))^3.$$

$$46310 = F(4 \times 6) - 3 - F(10).$$

$$46317 = F(4 \times 6) - 3 \times 17.$$

$$46327 = F(4 \times 6) - F(3^2) - 7.$$

$$46335 = F(4 \times 6) + F(3) - 35.$$

$$46370 = F(4 \times 6) + F(3 + 7 \times 0).$$

$$46372 = 4 + F(6^3/(7+2)).$$

$$46373 = F(4 \times 6) + F(3) + F(7-3).$$

$$46374 = F(4 \times 6) + 3 + 7 - 4.$$

$$36864 = F(3)^{F(6)} \times F(8 \times 6/4).$$

$$37196 = (3^7 + 1) \times (9 + F(6)).$$

$$37347 = -F(3) + F(7)^3 \times (4 + F(7)).$$

$$37439 = F(3) \times F(7)^4 - 3^9.$$

$$37522 = 3 + (F(7) + F(5^2))/2.$$

$$37523 = (3 \times 7 + F(5^2))/F(3).$$

$$37632 = 3 \times (7 \times F(6) \times F(3))^2.$$

$$38328 = 3 \times 8 \times F(3^2 + 8).$$

$$46416 = F(4 \times 6) + F(4) \times 16.$$

$$46431 = F(4 \times 6) + 4^3 - 1.$$

$$46493 = F(4 \times 6) + (-4 + 9)^3.$$

$$46524 = F(4 \times 6) + 52 \times F(4).$$

$$46692 = 4 + 6^6 + F(9) - 2.$$

$$46698 = F(4 \times 6) + 6 \times (F(9) + F(8)).$$

$$46993 = F(4 \times 6) + (F(9) - 9)^{F(3)}.$$

$$48382 = 48^{F(3)} \times F(8) - 2.$$

$$38374 = -F(3) \times F(8) + (F(3) \times 7)^4.$$

$$38845 = (-F(3)^8 + F(8)^4)/5.$$

$$39194 = -F(3) \times F(9+1) + F(9)^{F(4)}.$$

$$39236 = (-F(3) + F(9)^2) \times F(3+6).$$

$$39273 = 3 - F(9) + F(2+7)^3.$$

$$39285 = (F(3 \times 9) - F(2) + 8)/5.$$

$$39293 = F(3) - F(9-2) + F(9)^3.$$

$$39294 = -3 - 9 + 2 + F(9)^{F(4)}.$$

$$48672 = 48 \times 6 \times F(7)^2.$$

$$48828 = ((-F(4) + 8)^8 - F(2))/8.$$

$$49278 = (-F(4) + 9) \times (2^{F(7)} + F(8)).$$

$$49464 = (-4 + F(9+4)) \times 6^{F(4)}.$$

$$50653 = (50 - F(6) - 5)^3.$$

$$52486 = -F(5-2) + F(4)^8 \times F(6).$$

$$52733 = 5 + (2 \times F(7))^3 \times 3.$$

$$52743 = -5 + (2 \times F(7))^{F(4)} \times 3.$$

$$39304 = F(3 \times 9/3)^{F(04)}.$$

$$39339 = 3^9 \times F(3) - 3 \times 9.$$

$$43173 = F(4)^3 \times (F(17) + F(3)).$$

$$43742 = 4 \times F(3 \times 7) - 42.$$

$$43782 = (-4 + F(3 \times 7) \times 8)/2.$$

$$43787 = 4 \times F(3 \times 7) + F(8)/7.$$

$$45344 = -4^5 + F(3 \times (4+4)).$$

$$45346 = -4^5 + F(3) + F(4 \times 6).$$

$$53680 = F(5 \times 3) \times (F(6) + 80).$$

$$54120 = (5 + F(4)) \times 1 \times F(20).$$

$$54176 = (F(5 \times 4) + 1 \times 7) \times F(6).$$

$$54348 = (F(54/3) + 4) \times F(8).$$

$$54576 = (F(5 \times 4) + 57) \times F(6).$$

$$54795 = 5 \times F(4 \times 7)/(F(9) - 5).$$

$$55339 = F(5 \times 5) - 3 - 3^9.$$

$$55342 = F(5 \times 5) - 3^{F(4)^2}.$$

$$56448 = 56 \times (F(4 \times 4) + F(8)).$$

$$57349 = 5 + 7 \times F(3)^{4+9}.$$

$$57645 = 5^7 - F(6)^4 \times 5.$$

$$58957 = -5 \times F(8) + 9^5 + F(7).$$

$$59049 = F(-5 + 9) \times F(04)^9.$$

$$59314 = (5 + F(9))^3 - 1 - 4.$$

$$59315 = (5 + F(9))^3 + 1 - 5.$$

$$59318 = (5 + F(9))^3 - 1^8.$$

$$65746 = 6 \times 5 \times 7 + 4^{F(6)}.$$

$$65892 = (65 - 8) \times F(9)^2.$$

$$67116 = (67 + 1) \times F(16).$$

$$67184 = 6 \times F(7) \times F(18)/F(4).$$

$$67712 = F(6) \times (F(7) \times 7 + 1)^2.$$

$$68913 = -F(6) + (8 + F(9) - 1)^3.$$

$$72893 = -7 + (-2 + 8 \times F(9))^{F(3)}.$$

$$73769 = -F(7) + (F(3)^{F(7)} + 6) \times 9.$$

$$59319 = (5 + F(9))^3 \times 1^9.$$

$$59338 = (5 + F(9))^3 - F(3) + F(8).$$

$$59347 = (5 + F(9))^3 + 4 \times 7.$$

$$59349 = (5 + F(9))^3 - 4 + F(9).$$

$$59383 = (5 + F(9))^3 + 8^{F(3)}.$$

$$59392 = (-5 + F(9)) \times F(3)^{9+2}.$$

$$59426 = F(5 + 9) + F(4)^{2+F(6)}.$$

$$73963 = -7 \times 3 + (F(9) \times F(6))^{F(3)}.$$

$$74379 = 7 \times F(4) + 3^7 \times F(9).$$

$$74694 = F(7)^{-F(4)+6} \times F(9) - 4.$$

$$74698 = F(7)^{F(4)} \times F(6) \times F(9)/8.$$

$$74872 = 7^{F(4)} + (F(8) \times F(7))^2.$$

$$74938 = F(7)^4 + 9 + F(3 \times 8).$$

$$74996 = (F(7)^{F(4)} + 9) \times F(9) - F(6).$$

$$75169 = F(7 + 5) + F(16 + 9).$$

$$60945 = 60 + 9 \times F(4 \times 5).$$

$$61488 = 61 \times 48 \times F(8).$$

$$61848 = F(6) \times (F(18) \times F(4) - F(8)).$$

$$62016 = F(6) \times (F(20) + F(16)).$$

$$62564 = F(6)^2 + 5^6 \times 4.$$

$$62946 = -6 - F(2 \times 9) + 4^{F(6)}.$$

$$63164 = F(6)^{F(3)} \times F(16) - 4.$$

$$63175 = F(6 \times (3 + 1)) + 7^5.$$

$$75625 = 75 \times F(6) + F(25).$$

$$75647 = 7 + F(5 \times 6)/(4 + 7).$$

$$76464 = (7 \times F(6) + F(4)) \times 6^4.$$

$$76594 = 7 \times (F(6 \times 5 - 9) - 4).$$

$$76832 = -7^6 + F(8)^{F(3) \times 2}.$$

$$78125 = (F(7) - 8)^{1 \times 2+5}.$$

$$81796 = ((F(8) + 1) \times F(7))^{F(9-6)}.$$

$$82937 = (8 \times (2 + F(9)))^{F(3)} - 7.$$

$$63964 = -6^{F(3)} + (F(9) + 6)^{F(4)}.$$

$$63994 = -6 + (-3 + 9 + F(9))^{F(4)}.$$

$$64837 = 6 + 4 + F(8)^3 \times 7.$$

$$64872 = 6 \times (-4 + (8 \times F(7))^2).$$

$$65142 = (65 + 1) \times F(4^2).$$

$$65368 = F(6)^5 \times F(3) - F(6) \times F(8).$$

$$65446 = -6 \times 5 \times F(4) + 4^{F(6)}.$$

$$65468 = -F(6 + 5) + 4^{F(6)} + F(8).$$

$$82944 = (-8 - 2 + F(9))^4/4.$$

$$83232 = 8 \times (F(3^2) \times 3)^2.$$

$$83328 = ((F(8) \times 3)^{F(3)} - F(2)) \times F(8).$$

$$85184 = (F(8) + 5 + 18)^{F(4)}.$$

$$85224 = 8 \times (5 + 22^{F(4)}).$$

$$85742 = -8 + (5 \times 7)^{F(4)} \times 2.$$

$$85848 = F(8) \times ((-5 + F(8))^{F(4)} - 8).$$

$$86184 = F(8) \times (F(6) + 1 \times 8^4).$$

$$65488 = -F(6) \times 5 + 4^8 - 8.$$

$$65489 = -F(6) - 5 + 4^8 - F(9).$$

$$65523 = (F(6)^5 - 5) \times 2 - 3.$$

$$65528 = F(6)^5 \times F(5 - 2) - 8.$$

$$65536 = F(6)^5 \times (5 + 3 - 6).$$

$$65538 = (F(6)^5 + 5) \times F(3) - 8.$$

$$65546 = (F(6)^5 + 5) \times (-4 + 6).$$

$$65694 = 6 \times (F(5 \times 6 - 9) + F(4)).$$

$$86528 = (8 \times (F(6) + 5))^2 \times 8.$$

$$87568 = 8 \times F(7 \times 5 - 6 - 8).$$

$$87820 = -F(8) + F(7) \times (-8 + F(20)).$$

$$89712 = 89 \times 7 \times F(12).$$

$$91125 = (F(9) + 11)^{-2+5}.$$

$$91145 = 9 + F(11) \times 4^5.$$

$$93393 = (F(9)^{F(3)} - 3) \times 9^{F(3)}.$$

$$93628 = (9 \times F(3 + 6))^2 - 8.$$

$$\begin{aligned} 93633 &= (9 \times F(3 + 6))^{F(3)} - 3. \\ 93636 &= (9 \times F(3 + 6))^{F(-3+6)}. \\ 97333 &= (-9 + F(7 + 3))^3 - 3. \\ 97336 &= (-9 + F(7 + 3))^{-3+6}. \\ 97344 &= 9 \times F(7)^{F(3)} \times 4^{F(4)}. \\ 97417 &= (9 + F(7) \times 4) \times F(17). \\ 97682 &= (F(9) \times F(7))^{-6+8}/2. \end{aligned}$$

$$\begin{aligned} 98192 &= F(9) \times 8 \times (19^2). \\ 98376 &= (-9 + F(8)) \times (F(3)^{F(7)} + 6). \\ 98514 &= 9 \times F((85 - 1)/4). \\ 98784 &= 98 \times 7 \times F(8 + 4). \\ 98974 &= F(9) \times (F(8) \times F(9) + F(7)^{F(4)}). \\ 99223 &= (9 \times (F(9) + F(2)))^2 - F(3). \\ 99225 &= (9 \times (F(9) + F(2)))^{F(-2+5)}. \end{aligned}$$

6.3 Reverse Order of Digits

$$\begin{aligned} 36 &= 6^{F(3)}. \\ 84 &= 4 \times F(8). \\ 189 &= 9 \times F(8) \times 1. \\ 231 &= F(13) - 2. \\ 243 &= 3^{F(4)+2}. \\ 438 &= F(8)^{F(3)} - F(4). \\ 882 &= 2 \times F(8) \times F(8). \\ 1631 &= F(13) \times (6 + 1). \\ 1897 &= 7 \times (F(9) \times 8 - 1). \\ 1972 &= 2 \times (F(7 + 9) - 1). \end{aligned}$$

$$\begin{aligned} 4455 &= 55 \times F(4)^4. \\ 4736 &= F(6)^{F(3)} \times 74. \\ 4781 &= F(18) + F(7)^{F(4)}. \\ 4896 &= 6 \times F(9) \times 8 \times F(4). \\ 4935 &= 5 \times F(3 + 9 + 4). \\ 5473 &= F(3 \times 7)/(-F(4) + 5). \\ 5728 &= F(8)^2 \times F(7) - 5. \\ 5738 &= F(8)^{F(3)} \times F(7) + 5. \end{aligned}$$

$$\begin{aligned} 2197 &= F(7)^{9/(1+2)}. \\ 2296 &= (-F(6) + F(9)^2) \times 2. \\ 2581 &= F(18) - 5 + 2. \\ 2688 &= 8 \times F(8) \times F(6) \times 2. \\ 2704 &= (4 \times F(07))^2. \\ 3025 &= F(5 \times 2)^{F(03)}. \\ 3087 &= 7 \times F(8)^{F(03)}. \\ 3364 &= (F(4 + 6) + 3)^{F(3)}. \\ 3372 &= (2 + F(7))^3 - 3. \\ 3495 &= 5 \times F(9 + 4) \times 3. \end{aligned}$$

$$\begin{aligned} 5825 &= 5^2 \times F(8 + 5). \\ 6489 &= -9 \times 8 + F(4)^{F(6)}. \\ 6493 &= -F(3) \times F(9) + F(4)^{F(6)}. \\ 6561 &= 1 \times (F(6) - 5)^{F(6)}. \\ 6765 &= F(-56 + 76). \\ 7756 &= 6^5 - F(7) - 7. \\ 7896 &= F(6) \times 987. \\ 8172 &= 2^{F(7)} + 1 - F(8). \\ 9248 &= F(8)^{F(4)} - F(-2 + 9). \end{aligned}$$

$$\begin{aligned} 3528 &= F(8)^2 \times (5 + 3). \\ 3635 &= 5 \times (3^6 - F(3)). \\ 3645 &= 5 \times (F(4) + 6)^3. \\ 3718 &= (F(8) + 1) \times F(7)^{F(3)}. \\ 3969 &= (9 \times 6 + 9)^{F(3)}. \\ 3999 &= (9 + F(9)) \times 93. \\ 4096 &= F(6)^{9 \times 0+4}. \\ 4147 &= (7 + 4) \times F(14). \\ 4181 &= F(18 + 1^4). \\ 4374 &= F(4)^7 \times (-F(3) + 4). \end{aligned}$$

$$\begin{aligned} 10912 &= F(21) - F(9 \times 01). \\ 11125 &= 5^{2+1} \times F(11). \\ 11264 &= (4 \times F(6))^2 \times 11. \\ 11664 &= (F(4) \times 6 \times 6)^{1+1}. \\ 11837 &= 7 \times (-F(3) + F(8)) \times F(11). \\ 11844 &= F(4) \times 4 \times F(8 \times (1 + 1)). \\ 12238 &= F(8 \times 3)/2 - F(21). \\ 12537 &= (-F(7) + F(3 \times 5)) \times 21. \\ 12543 &= 3 \times F((4 + 5) \times 2 + 1). \\ 12768 &= (F(8) \times 6 - F(7))^2 - 1. \end{aligned}$$

$$\begin{aligned} 12769 &= (9 + F(6) \times F(7))^2 \times 1. \\ 12815 &= 5 \times (F(18) - 21). \\ 12831 &= 13 \times F(8 \times 2 \times 1). \\ 12873 &= 3 + F(7 + 8) \times 21. \\ 12915 &= 5 \times (-1 + F(9 \times 2 \times 1)). \\ 12925 &= 5 \times (F(2) + F(9 \times 2)) \times 1. \\ 12935 &= 5 \times (3 + F(9 \times 2 \times 1)). \\ 12945 &= 5 \times (4 + F(9 \times 2) + 1). \\ 12965 &= 5 \times (F(6) + F(9 \times 2) + 1). \\ 13176 &= 6 \times (F(7)^{1 \times 3} - 1). \end{aligned}$$

$$\begin{aligned} 17253 &= 3^5 \times F(2) \times 71. \\ 17339 &= F(9)^{F(3)} \times (F(3) + F(7)) - 1. \\ 17456 &= F(6) \times (-5 + F(4)^7 \times 1). \\ 17484 &= -4 + 8 \times (F(4)^7 - 1). \\ 17488 &= 8 \times (F(8 - 4)^7 - 1). \\ 17576 &= F(6) \times F(7)^{-5+7+1}. \\ 17647 &= F(7)^{F(4)} \times F(6) + 71. \\ 17664 &= F(4 \times 6) \times F(6)/F(7 + 1). \\ 17697 &= F(7 + 9 + 6) - F(7) - 1. \\ 17712 &= F(21 + 7/7) + 1. \end{aligned}$$

$$\begin{aligned} 13377 &= F(7) \times 7^3 \times 3 \times 1. \\ 13689 &= (9 \times (F(8) - F(6)))^{3-1}. \\ 13715 &= 5 \times ((1 + F(7))^3 - 1). \\ 13798 &= F(8) \times 9 \times 73 + 1. \\ 14635 &= -5 + (3 + F(6))^4 - 1. \\ 14636 &= -6 + (3 + F(6))^4 + 1. \\ 14759 &= (9^5 - F(7))/4 \times 1. \\ 15251 &= F(15) \times 25 + 1. \\ 15366 &= 6 \times (F(6)^3 \times 5 + 1). \\ 15488 &= 8 \times 8 \times (F(4)^5 - 1). \end{aligned}$$

$$\begin{aligned} 17725 &= F(-5 + 27) + F(7) + 1. \\ 18482 &= 2 \times (F(8)^{F(4)} - F(8) + 1). \\ 18592 &= (-2 + F(9)) \times 581. \\ 18873 &= F(3 \times 7 - 8) \times 81. \\ 18954 &= (F(4)^5 - 9) \times 81. \\ 19355 &= 553 \times (F(9) + 1). \\ 19656 &= 6^{-5+F(6)} \times 91. \\ 19745 &= 5 \times (4 \times F(7 + 9) + 1). \\ 19873 &= (3^7 + F(8)) \times 9 + 1. \\ 19893 &= 3^9 + F(8) \times (9 + 1). \end{aligned}$$

$$\begin{aligned} 15498 &= F(8) \times (9 + F(4)^{5+1}). \\ 15544 &= -F(4)^4 + 5^{5+1}. \\ 15563 &= F(3) \times (6^5 + 5) + 1. \\ 15583 &= -F(3) \times F(8) + 5^{5+1}. \\ 15591 &= -1 \times F(9) + 5^{5+1}. \\ 15623 &= -F(3) + (-F(2) + 6)^{5+1}. \\ 15633 &= (F(3) + 3)^6 + F(5 + 1). \\ 15676 &= (-F(6) + F(7))^6 + 51. \\ 15771 &= F(1 + 7) \times 751. \\ 15792 &= 2 \times F(9 + 7) \times F(5 + 1). \end{aligned}$$

$$\begin{aligned} 20193 &= 3 \times (-F(9) + F(10 \times 2)). \\ 20273 &= 3 \times (-7 + F(20)) - F(2). \\ 20295 &= F(-5 + 9) \times F(20) \times F(2). \\ 20296 &= (-6 + 9) \times F(20) + F(2). \\ 20485 &= 5 \times (8^4 + F(02)). \\ 20886 &= 6 \times (-F(8) + 80)^2. \\ 20915 &= 5 \times (F(19) + 02). \\ 21892 &= F(29 - 8) \times 1 \times 2. \\ 21912 &= (F(21) + 9 + 1) \times 2. \\ 22799 &= (F(9) + 9 \times F(7))^2 - 2. \end{aligned}$$

$$\begin{aligned} 16382 &= -2 + (8/F(3))^{6+1}. \\ 16418 &= F(8 + 1) + 4^{6+1}. \\ 16419 &= F(9) + 1 + 4^{6+1}. \\ 16724 &= 4 \times F(2 \times 7 + 6 - 1). \\ 16739 &= -F(9) \times F(3) + 7^{6-1}. \\ 16752 &= -F(2 \times 5) + 7^{6-1}. \\ 16758 &= F(8) \times (5 + F(7) \times 61). \\ 16828 &= F(8) + (-F(2) + 8)^{6-1}. \\ 16926 &= 62 \times (F(9) \times F(6) + 1). \\ 17199 &= 9 \times 91 \times F(7 + 1). \end{aligned}$$

$$\begin{aligned} 23176 &= -F(6) + F((7 + 1) \times 3)/2. \\ 23177 &= -7 + F((7 + 1) \times 3)/2. \\ 23188 &= (8 + F(8 \times 1 \times 3))/2. \\ 23197 &= F(7) + F((9 - 1) \times 3)/2. \\ 23256 &= F(6 \times (5 - 2)) \times 3^2. \\ 23264 &= (F(4)^6 - 2) \times 32. \\ 23329 &= ((F(9) + 2)^3 + F(3))/2. \\ 23409 &= (9 + F(04 \times 3))^2. \\ 23478 &= F(8) \times F(7) \times 43 \times 2. \\ 23718 &= ((F(8) + 1) \times 7)^{F(3)} + 2. \end{aligned}$$

$$\begin{aligned} 23826 &= 6 \times (2 + (F(8) \times 3)^2). \\ 23898 &= F(8) \times F(9) + F(8 \times 3)/2. \\ 23991 &= (-1 + F(9)) \times (9^3 - 2). \\ 24126 &= F(6)^2 \times F(14) - 2. \\ 24128 &= 8^2 \times F(14) \times F(2). \\ 24255 &= 55 \times F(2 \times 4)^2. \\ 24326 &= -F(6) + 23^{F(4)} \times 2. \\ 24327 &= -7 + 23^{F(4)} \times 2. \\ 24328 &= ((F(8) + 2)^3 - F(4)) \times 2. \\ 24337 &= F(7)^{F(3)} \times F(3 \times 4) + F(2). \end{aligned}$$

$$\begin{aligned} 24339 &= (F(9)^{F(3)} + 3) \times F(4 \times 2). \\ 24368 &= (F(8) + F(6))^3 - F(4 \times 2). \\ 24386 &= (F(6) + F(8))^3 - 4 + F(2). \\ 24387 &= (F(7) + 8 \times F(3))^{F(4)} - 2. \\ 24388 &= (8 + F(8))^3 - F(4 - 2). \\ 24389 &= (F(9) - 8 + 3)^{F(4)} \times F(2). \\ 24392 &= (29^3 + F(4)) \times F(2). \\ 24395 &= (-5 + F(9))^3 + 4 + 2. \\ 24546 &= (F(6)^4 - 5) \times (4 + 2). \\ 24576 &= 6 \times (F(7) - 5)^4 \times F(2). \end{aligned}$$

$$\begin{aligned} 24675 &= 5 \times (F(7) - F(6)) \times F(4^2). \\ 24964 &= (F(4) \times 6 \times 9 - 4)^2. \\ 24997 &= 7 \times (F(9 + 9) + F(4^2)). \\ 25376 &= F(6) \times F(7) \times (3^5 + F(2)). \\ 25532 &= (F(23) - 5^5) \times F(2). \\ 25662 &= 26 \times F(6 + 5 \times 2). \\ 25921 &= (1 + (-2 + F(9)) \times 5)^2. \\ 26376 &= (6 + F(7)^3 \times 6) \times 2. \\ 26377 &= F(7) + F(7)^3 \times 6 \times 2. \\ 26573 &= F(3 \times 7) + 5^6 + 2. \end{aligned}$$

$$\begin{aligned} 26637 &= F(7) \times (F(3)^{F(6)} \times F(6) + F(2)). \\ 26896 &= (F(6) + (F(9) - 8) \times 6)^2. \\ 26928 &= (F(8) + F(2)) \times F(9) \times 6^2. \\ 26987 &= -F(7) + (F(8) + 9)^{6/2}. \\ 26998 &= (F(8) + 9)^{9-6} - 2. \\ 27024 &= 4 \times (F(20) - 7 - 2). \\ 27147 &= (F(7) + 4) \times F(17) - 2. \\ 27148 &= (F(8) - 4) \times F(17) - F(2). \\ 27225 &= F(5 \times 2)^2 \times (7 + 2). \\ 27345 &= 5 \times (4 + F(3 \times 7))/2. \end{aligned}$$

$$\begin{aligned} 27365 &= 5 \times F((6 - 3) \times 7)/2. \\ 27385 &= 5 \times (8 + F(3 \times 7))/2. \\ 27468 &= F(8) \times (6^4 + F(7) - F(2)). \\ 27792 &= (2 + F(9)) \times 772. \\ 27847 &= F(7)^4 - F(8) \times F(7 + 2). \\ 27848 &= 8 \times (F(4) + 8 \times 7)^2. \\ 28237 &= F(7) + (F(3 \times 2) \times F(8))^2. \\ 28288 &= (8 \times F(8))^2 + 8^2. \\ 28376 &= F(6) \times (F(7)^{F(3)} \times F(8) - 2). \\ 28431 &= 13 \times F(4)^{8-F(2)}. \end{aligned}$$

$$\begin{aligned} 28446 &= (6^4 - F(4)) \times (F(8) + F(2)). \\ 28532 &= F(23) - 5^{F(8/2)}. \\ 28544 &= 4^{F(4)} \times (5 + F(8)^2). \\ 28561 &= 1 \times (F(6) + 5)^{8/2}. \\ 28632 &= F(23) - 6 - F(8) + 2. \\ 28671 &= -1 + 7 \times F(6)^{8/2}. \\ 28672 &= F(2) \times 7 \times F(6)^{8/2}. \\ 28732 &= F(23) - 7 + 82. \\ 28746 &= 6 \times F(4) \times F(7 + 8 + 2). \\ 28794 &= F(4 + 9) + F(7)^{8/2}. \end{aligned}$$

$$\begin{aligned} 29177 &= 7 \times (-F(7) + F(19)) + F(2). \\ 29197 &= 7 \times (-9 + F(19) - F(2)). \\ 29241 &= (1 + (F(4) + 2) \times F(9))^2. \\ 29529 &= ((9 \times F(2))^5 + 9)/2. \\ 29813 &= F(31 - 8) + F(9)^2. \\ 29989 &= 98 \times F(9) \times 9 + F(2). \\ 30976 &= (F(6) \times (F(7) + 9))^{F(03)}. \\ 31329 &= (F(9 + 2) \times F(3) - 1)^{F(3)}. \\ 32158 &= 8^5 - F(12 + 3). \\ 32677 &= -7 \times F(7) + F(6)^{2+3}. \end{aligned}$$

$$\begin{aligned} 32684 &= -4 \times F(8) + F(6)^{2+3}. \\ 32746 &= F(6)^4 - 7 + F(23). \\ 32753 &= F(3)^{5+7} + F(23). \\ 32756 &= F(6)^5 - 7 - 2 - 3. \\ 32759 &= -9 + (-5 + F(7))^{2+3}. \\ 32762 &= 2^{F(6)+7} - 2 \times 3. \\ 32763 &= -3 + F(6)^{7-2} - F(3). \\ 32764 &= ((-4 + F(6))^7 - 2) \times F(3). \\ 32765 &= -5 + F(6)^{7-2} + F(3). \\ 32766 &= F(6)^{-6+F(7)-2} - F(3). \end{aligned}$$

$$\begin{aligned} 32839 &= F(9) + 3^8 \times (2 + 3). \\ 32845 &= 5 \times (F(4)^8 + 2^3). \\ 33282 &= (2^8 + 2)^{F(3)} / F(3). \\ 33327 &= 7 \times (23 \times 3)^{F(3)}. \\ 33448 &= 8 \times F(4 + 4 \times 3 + 3). \\ 33489 &= (9 \times F(8) - 4 - F(3))^{F(3)}. \\ 33578 &= (-F(8) + 7^5 + 3) \times F(3). \\ 33617 &= 7^{-1+6} \times F(3) + 3. \\ 33631 &= 13 \times (F(6 \times 3) + 3). \\ 33696 &= (-F(6) + F(9)) \times 6^{F(3) \times F(3)}. \end{aligned}$$

$$\begin{aligned} 33785 &= 5 \times (-8 + F(-7 + 3^3)). \\ 33856 &= (F(6) \times (5 + F(8) - 3))^{F(3)}. \\ 34188 &= F(8) \times 814 \times F(3). \\ 34285 &= 5 \times ((F(8) - 2)^{F(4)} - F(3)). \\ 34475 &= 5 \times 7 \times (F(4 \times 4) - F(3)). \\ 34545 &= 5 \times (F(4 \times 5) + F(4 \times 3)). \\ 34596 &= (6 + 9 \times 5 \times 4)^{F(3)}. \\ 34848 &= 8 \times (F(4) \times F(8) + F(4))^{F(3)}. \\ 34968 &= 8 \times (6 \times 9^{F(4)} - 3). \\ 36284 &= -4 + F(8) \times (2 \times 6)^3. \end{aligned}$$

$$\begin{aligned} 36481 &= (-1 + 8 \times 4 \times 6)^{F(3)}. \\ 36483 &= ((F(3) + F(8))^{F(4)} - 6) \times 3. \\ 36992 &= (-2 + F(9)) \times F(9) \times F(6 + 3). \\ 36994 &= 4 \times F(9) \times F(9) \times F(6) + F(3). \\ 37044 &= 4 \times (F(4) \times 07)^3. \\ 37349 &= (9 + 4 \times F(3)) \times F(7)^3. \\ 37368 &= -8 + F(6)^3 \times 73. \\ 37376 &= F(6)^{F(7-3)} \times 73. \\ 37516 &= (F((6 - 1) \times 5) + 7) / F(3). \\ 37629 &= 9 \times F((2^6 - 7) / 3). \end{aligned}$$

$$\begin{aligned} 37835 &= 5 \times (-F(3) + 87^{F(3)}). \\ 37885 &= 5 \times (8 + 87^{F(3)}). \\ 37947 &= F(7) \times F(4) \times 973. \\ 38413 &= -3 + 14^{8/F(3)}. \\ 38416 &= (6 + 1)^4 \times 8 \times F(3). \\ 38493 &= 39 \times F(48/3). \\ 38565 &= 5 \times (6^5 - F(8) \times 3). \\ 38784 &= (-4 + F(8 + 7)) \times 8^{F(3)}. \\ 38792 &= -2^9 + (F(7) + F(8))^3. \\ 38808 &= (80 + 8) \times F(8)^{F(3)}. \end{aligned}$$

$$\begin{aligned} 38809 &= (9 \times F(08) + 8)^{F(3)}. \\ 39064 &= -4 \times 60 + F(9)^3. \\ 39139 &= F(9)^3 - F(1 + 9) \times 3. \\ 39178 &= -F(8) \times (7 - 1) + F(9)^3. \\ 39187 &= -F(7) \times (8 + 1) + F(9)^3. \\ 39189 &= -F(9) - 81 + F(9)^3. \\ 39223 &= -3^{2 \times 2} + F(9)^3. \\ 39236 &= -F(6 + 3) \times 2 + F(9)^3. \\ 39238 &= -8^{F(3)} - 2 + F(9)^3. \\ 39249 &= -F((9 - 4) \times 2) + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39251 &= -1 - 52 + F(9)^3. \\ 39252 &= -F(2) \times 52 + F(9)^3. \\ 39256 &= F(6) \times (-5 - F(2)) + F(9)^3. \\ 39258 &= -F(8) - 5^2 + F(9)^3. \\ 39259 &= -9 \times 5 + (F(2) \times F(9))^3. \\ 39262 &= -2 \times F(6 + 2) + F(9)^3. \\ 39264 &= (F(4)^{F(6)} \times 2 - F(9)) \times 3. \\ 39265 &= -5 \times F(6) + F(2) + F(9)^3. \\ 39266 &= -6 \times 6 - 2 + F(9)^3. \\ 39281 &= -1 - F(8) - F(2) + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39282 &= -2 - F(8) + F(2) + F(9)^3. \\ 39283 &= -F(3) \times F(8)/2 + F(9)^3. \\ 39286 &= -6 \times F(8/2) + F(9)^3. \\ 39287 &= -7 - 8 - 2 + F(9)^3. \\ 39288 &= -8 - 8 + (F(2) \times F(9))^3. \\ 39289 &= -9 - 8 + 2 + F(9)^3. \\ 39291 &= -1 \times F(9 - 2) + F(9)^3. \\ 39295 &= -F(-5 + 9)^2 + F(9)^3. \\ 39297 &= -7 + (F(9) \times F(2))^{9/3}. \\ 39301 &= 1 \times 0 - 3 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39305 &= F(5 - 03) + F(9)^3. \\ 39308 &= 8/F(03) + F(9)^3. \\ 39312 &= (2 \times 1)^3 + F(9)^3. \\ 39313 &= (3 \times 1) \times 3 + F(9)^3. \\ 39314 &= (4 + 1) \times F(3) + F(9)^3. \\ 39317 &= F(7) + F(1^3 \times 9)^3. \\ 39318 &= (8 - 1) \times F(3) + F(9)^3. \\ 39322 &= (-22 + 3^9) \times F(3). \\ 39324 &= -42 + 3^9 \times F(3). \end{aligned}$$

$$\begin{aligned} 39325 &= (5 + 2) \times 3 + F(9)^3. \\ 39329 &= -F(9) + 2 \times 3^9 - 3. \\ 39331 &= 1 \times 3^3 + F(9)^3. \\ 39337 &= (F(7) - F(3)) \times 3 + F(9)^3. \\ 39338 &= F(8 + 3/3) + F(9)^3. \\ 39339 &= F(9)^3 - F(3) + F(9) + 3. \\ 39342 &= -24 + 3^9 \times F(3). \\ 39343 &= 3 \times F(4 + 3) + F(9)^3. \\ 39344 &= -F(4) + 43 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39346 &= -6 - 4 + 3^9 \times F(3). \\ 39347 &= -F(7) + (-F(4) + 3^9) \times F(3). \\ 39349 &= -9 + (-4 + 3^9) \times F(3). \\ 39351 &= -15 + 3^9 \times F(3). \\ 39352 &= (-2 - 5 + 3^9) \times F(3). \\ 39353 &= F(3) \times (-5 + 3^9) - 3. \\ 39354 &= -F(4) + 53 + F(9)^3. \\ 39358 &= -8 + (5 - F(3))^9 \times F(3). \\ 39359 &= F(9) + F(5 + 3) + F(9)^3. \\ 39372 &= 2 \times (F(7 - 3)^9 + 3). \end{aligned}$$

$$\begin{aligned} 39375 &= -5 + (7 + 3^9) \times F(3). \\ 39376 &= F(6) \times (7 + F(3)) + F(9)^3. \\ 39381 &= -1 + (8 + 3^9) \times F(3). \\ 39388 &= (F(8) + F(8)) \times F(3) + F(9)^3. \\ 39392 &= (F(-2 + 9) + 3^9) \times F(3). \\ 39408 &= (F(8) + F(04)^9) \times F(3). \\ 39416 &= F(6) \times 14 + F(9)^3. \\ 39432 &= 2^{3+4} + F(9)^3. \\ 39439 &= -9 + F(3 \times 4) + F(9)^3. \\ 39468 &= F(8) \times F(6) - 4 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39475 &= 57 \times F(4) + F(9)^3. \\ 39477 &= F(7) \times F(7) + 4 + F(9)^3. \\ 39478 &= (8 \times 7 + F(4)^9) \times F(3). \\ 39489 &= 9 \times F(8) - 4 + F(9)^3. \\ 39492 &= 2 \times 94 + F(9)^3. \\ 39504 &= 40 \times 5 + F(9)^3. \\ 39524 &= 4 \times F(2 \times 5) + F(9)^3. \\ 39529 &= 9 \times 25 + F(9)^3. \\ 39544 &= -F(4) + F(4)^5 + F(9)^3. \\ 39547 &= (7 - 4)^5 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39564 &= 4 \times 65 + F(9)^3. \\ 39598 &= F(8) \times (9 + 5) + F(9)^3. \\ 39647 &= 7^{-F(4)+6} + F(9)^3. \\ 39655 &= 55 \times (-F(6) + 9^3). \\ 39681 &= F(1 \times 8 + 6) + F(9)^3. \\ 39688 &= 8 \times 8 \times 6 + F(9)^3. \\ 39733 &= 33 \times F(7) + F(9)^3. \\ 39738 &= F(8)^{F(3)} - 7 + F(9)^3. \\ 39749 &= F(9)^{F(4)} + F(7) \times F(9) + 3. \\ 39766 &= 66 \times 7 + F(9)^3. \end{aligned}$$

$$\begin{aligned} 39914 &= F(-4 + 19) + F(9)^3. \\ 39927 &= 7 \times F(2 + 9) + F(9)^3. \\ 39936 &= F(6)^3 \times (9 \times 9 - 3). \\ 39987 &= -F(7) + (8 \times (F(9) - 9))^{F(3)}. \\ 39997 &= 7 \times 99 + F(9)^3. \\ 40698 &= F(8) \times F(9) \times (60 - F(4)). \\ 42272 &= -2^{F(7)}/2 + F(24). \\ 42588 &= F(8) \times (F(8) + 5)^2 \times F(4). \\ 42845 &= F(5 \times 4) \times (F(8) - 2)/F(4). \\ 42873 &= -F(3) + (F(7) + F(8) + F(2))^{F(4)}. \end{aligned}$$

$$\begin{aligned} 42875 &= (5 \times 7)^{F(8 \times 2/4)}. \\ 42909 &= F(9) + (F(09) + F(2))^{F(4)}. \\ 42938 &= F(8) \times 3 + (F(9) + F(2))^{F(4)}. \\ 43267 &= (F(7) \times F(6) \times 2)^{F(3)} + F(4). \\ 43276 &= ((F(6) \times F(7))^2 + 3) \times 4. \\ 43688 &= (-8 + 8^6/F(3))/F(4). \\ 43752 &= -2^5 + F(7 \times 3) \times 4. \\ 43772 &= (F(2 \times 7 + 7) - 3) \times 4. \\ 43797 &= F(7) + F(9 \times 7/3) \times 4. \\ 43812 &= (F(21) + F(8)/3) \times 4. \end{aligned}$$

$$\begin{aligned} 43912 &= (F(21) + F(9) - F(3)) \times 4. \\ 44771 &= -F(17) + F(7 \times 4 - 4). \\ 45738 &= F(8) \times (3^7 - 5 - 4). \\ 45753 &= F(3 \times 5) \times 75 + F(4). \\ 45873 &= 3^7 \times F(8) - 54. \\ 45991 &= F(19) \times (-9 + 5 \times 4). \\ 46048 &= -8 \times 40 + F(6 \times 4). \\ 46137 &= F(7)^3 \times (1 + 6) \times F(4). \\ 46152 &= F(25 - 1) - 6^{F(4)}. \\ 46216 &= -F(6) - F(12) + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46217 &= -7 - F(12) + F(6 \times 4). \\ 46245 &= -5^{F(4)} + 2 + F(6 \times 4). \\ 46247 &= -(7 + 4)^2 + F(6 \times 4). \\ 46265 &= 5 \times (-F(6) + F(2 + 6)^{F(4)}). \\ 46274 &= -47 \times 2 + F(6 \times 4). \\ 46304 &= -4^03 + F(6 \times 4). \\ 46306 &= -60 - F(3) + F(6 \times 4). \\ 46315 &= -51 - F(3) + F(6 \times 4). \\ 46319 &= 91 \times (-3 + F(6)^{F(4)}). \\ 46322 &= -2 \times 23 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 46666 &= F(6) + 6^6 + 6 - 4. \\ 46667 &= F(7) + 6^6 - 6 + 4. \\ 46668 &= 8 + F(6) + 6^6 - 4. \\ 46669 &= 9 + F(6) + 6^6 - 4. \\ 46681 &= F(1 \times 8) + 6^6 + 4. \\ 46682 &= F(2) + F(8) + 6^6 + 4. \\ 46683 &= F(3) + F(8) + 6^6 + 4. \\ 46685 &= 5 + F(8) + 6^6 + F(4). \\ 46686 &= 6 + F(8) + 6^6 + F(4). \\ 46687 &= F(7) + F(8) + 6^6 - F(4). \end{aligned}$$

$$\begin{aligned} 46349 &= -(F(9) + 4)/F(3) + F(6 \times 4). \\ 46351 &= -15 - F(3) + F(6 \times 4). \\ 46361 &= -1 - F(6) + F(3) + F(6 \times 4). \\ 46362 &= 2 \times (-6 + 3) + F(6 \times 4). \\ 46363 &= -3 - 6/3 + F(6 \times 4). \\ 46364 &= F(4 \times 6) - 3 + F(6 - 4). \\ 46365 &= (5 - 6) \times 3 + F(6 \times 4). \\ 46366 &= F(6 + 6 \times 3) - 6 + 4. \\ 46367 &= -(7 - 6)^3 + F(6 \times 4). \\ 46368 &= F(8 \times 6/3 \times 6/4). \end{aligned}$$

$$\begin{aligned} 46688 &= F(8) + 8 + 6^6 + F(4). \\ 46689 &= 9 + F(8) + 6^6 + F(4). \\ 46872 &= (-F(2) + (F(7) - 8)^6) \times F(4). \\ 46873 &= -F(3) + (F(7) - 8)^6 \times F(4). \\ 46875 &= 5^{(-7+8) \times 6} \times F(4). \\ 46926 &= 62 \times 9 + F(6 \times 4). \\ 46978 &= F(8 + 7) + F(96/4). \\ 47327 &= 7 \times (F(2 \times (3 + 7)) - 4). \\ 47372 &= (F(2 \times 7)^{F(3)} - F(7))/F(4). \\ 47628 &= F(8)^2 \times (F(6) \times F(7) + 4). \end{aligned}$$

$$\begin{aligned} 46369 &= (9 - 6)/3 + F(6 \times 4). \\ 46379 &= (9 + F(7))/F(3) + F(6 \times 4). \\ 46415 &= 51 - 4 + F(6 \times 4). \\ 46417 &= 7^{-1+F(4)} + F(6 \times 4). \\ 46422 &= -F(2) + F(24) + F(6 + 4). \\ 46426 &= 62 - 4 + F(6 \times 4). \\ 46437 &= 73 - 4 + F(6 \times 4). \\ 46459 &= 95 - 4 + F(6 \times 4). \\ 46537 &= F(7)^{-3+5} + F(6 \times 4). \\ 46563 &= 3 \times 65 + F(6 \times 4). \end{aligned}$$

$$\begin{aligned} 47664 &= F(4 \times 6) + 6^{7-F(4)}. \\ 47736 &= 6^3 \times F(7) \times (F(7) + 4). \\ 47796 &= 6 \times (-F(9) + (F(7) + 7)^{F(4)}). \\ 48384 &= (F(4) \times 8)^{F(3)} \times 84. \\ 49254 &= (4^{5+2} + F(9)) \times F(4). \\ 51764 &= F(4)^6 \times 71 + 5. \\ 52448 &= 8 \times (F(4)^{4 \times 2} - 5). \\ 52493 &= (F(3) \times 9)^4/2 + 5. \\ 52496 &= F(6) \times (9^4 + F(2)^5). \\ 53133 &= 3 \times F((3 \times 1)^3 - 5). \end{aligned}$$

$$\begin{aligned} 46601 &= -F(10) + (6 \times 6)^{F(4)}. \\ 46614 &= 41 \times 6 + F(6 \times 4). \\ 46622 &= -2 + 2^{F(6)} + F(6 \times 4). \\ 46635 &= -5^{F(3)} + 6^6 + 4. \\ 46639 &= -F(9)/F(3) + (6 \times 6)^{F(4)}. \\ 46649 &= -9/F(4) + 6^6 - 4. \\ 46652 &= F(2)^5 \times (6^6 - 4). \\ 46655 &= -5/5 + (6 \times 6)^{F(4)}. \\ 46662 &= 2 + F(6) + 6^6 - 4. \\ 46665 &= 5 + F(6) + 6^6 - 4. \end{aligned}$$

$$\begin{aligned} 53227 &= -F(7) + 22^3 \times 5. \\ 53482 &= -F(28) + F(4 + 3)^5. \\ 53946 &= 6 \times (F(4) + F(9)) \times 3^5. \\ 54128 &= 8 \times (F(2) + F(1 \times 4 \times 5)). \\ 54168 &= 8 \times (6 + F(1 \times 4 \times 5)). \\ 54176 &= F(6) \times (7 + F(1 \times 4 \times 5)). \\ 54216 &= F(6) \times (12 + F(4 \times 5)). \\ 54248 &= 8 \times (4^2 + F(4 \times 5)). \\ 54288 &= 8 \times (F(8) \times F(2) + F(4 \times 5)). \end{aligned}$$

$$\begin{aligned} 54289 &= F(9 + 8/2)^{-F(4)+5}. \\ 54294 &= F(4 + 9)^{-2+4} + 5. \\ 54717 &= -F(7) + F(17 + 4) \times 5. \\ 54735 &= (5 + F(3 \times 7) - 4) \times 5. \\ 54849 &= 9^{F(4)} + 8 \times F(4 \times 5). \\ 54925 &= (5 \times F(-2 + 9))^{F(4)}/5. \\ 57267 &= 7 \times (-6 + 2^{F(7)} - 5). \\ 57322 &= 2 \times F(23) + F(7) - 5. \\ 57323 &= F(3) \times (F(23) + 7) - 5. \\ 57326 &= (6 + F(23)) \times (7 - 5). \end{aligned}$$

$$\begin{aligned} 57327 &= F(7) + F(23) \times (7 - 5). \\ 57332 &= F(23) \times F(3) + F(7) + 5. \\ 57339 &= (9 - F(3)) \times F(3)^{F(7)} - 5. \\ 58944 &= F(4) \times (F(4)^9) - F(8) \times 5. \\ 58964 &= F(4)^{F(6)} \times 9 - 85. \\ 59018 &= -F(8) - 10 + 9^5. \\ 59028 &= -F(8) + 2 \times 0 + 9^5. \\ 59034 &= F(4) \times (3^{09} - 5). \\ 59043 &= -3 - F(4) + 09^5. \\ 59044 &= F(4) \times F(4)^{09} - 5. \end{aligned}$$

$$\begin{aligned} 59046 &= -6 + F(4) + 09^5. \\ 59047 &= -F(7 - 4) + 09^5. \\ 59048 &= -F(8/4) + 09^5. \\ 59138 &= F(8 + 3) + 1 \times 9^5. \\ 59193 &= F(3 + 9) + 1 \times 9^5. \\ 59218 &= F(8 - 1)^2 + 9^5. \\ 59238 &= F(8) \times 3^2 + 9^5. \\ 59389 &= F(9) \times (8 + F(3)) + 9^5. \\ 59415 &= 51 \times F(4 + 9) \times 5. \\ 59418 &= -8 + F(14) + 9^5. \end{aligned}$$

$$\begin{aligned} 59426 &= F(6 + 2 \times 4) + 9^5. \\ 59432 &= 23 \times F(4 + 9 + 5). \\ 59617 &= 71 \times F(6) + 9^5. \\ 59647 &= F(7) \times 46 + 9^5. \\ 59651 &= F(15) - F(6) + 9^5. \\ 59653 &= F(3 \times 5) - 6 + 9^5. \\ 59659 &= 9^5 + F((-6 + 9) \times 5). \\ 59725 &= 52 \times F(7) + 9^5. \\ 59764 &= F(4 + 6) \times F(7) + 9^5. \\ 61029 &= 9 \times (F(20) + 16). \end{aligned}$$

$$\begin{aligned} 62214 &= F(4) \times F(12)^2 + 6. \\ 62426 &= (F(6) - F(2))^4 \times 26. \\ 62584 &= 4 \times (F(8) + (5 \times F(2))^6). \\ 62976 &= (F(6) + 7 \times F(9)) \times 2^{F(6)}. \\ 63368 &= (86 + 3)^{F(3)} \times F(6). \\ 63392 &= (F(2 + 9)^{F(3)} + 3) \times F(6). \\ 63498 &= (F(8) \times (9 + F(4)))^{F(3)} - 6. \\ 63744 &= (4^4 - 7) \times F(3)^{F(6)}. \\ 63888 &= (F(8) + 8/8)^3 \times 6. \end{aligned}$$

$$\begin{aligned} 64024 &= (F(4) + 20^{F(4)}) \times F(6). \\ 64384 &= 4^8 - F(3 \times 4) \times F(6). \\ 64488 &= (F(8) \times 8^{F(4)} - 4) \times 6. \\ 64539 &= 9 \times (F(3 \times 5) + F(4)^{F(6)}). \\ 64544 &= -F(4 \times 4) - 5 + 4^{F(6)}. \\ 64812 &= (F(21) - F(8 + 4)) \times 6. \\ 64824 &= -F(4) + 2 \times F(8)^4/6. \\ 64826 &= (-6 + 2 \times F(8)^4)/6. \\ 64827 &= 7 \times (2 \times F(8))^{F(4)}/F(6). \\ 64835 &= (5 + F(3)) \times F(8)^{F(4)} + F(6). \end{aligned}$$

$$\begin{aligned} 64864 &= 4^{F(6)} - 84 \times F(6). \\ 64881 &= (1 + 88) \times F(4)^6. \\ 64935 &= -F(5 \times 3) + 9 + 4^{F(6)}. \\ 64945 &= -5^4 + F(9) + 4^{F(6)}. \\ 65159 &= -F(9 + 5) + (-1 + 5)^{F(6)}. \\ 65464 &= 4^{F(6)} - (4 + 5) \times F(6). \\ 65472 &= (2^{F(7)} - F(4) - 5) \times F(6). \\ 65542 &= 2 \times (F(4) + 5)^5 + 6. \\ 65544 &= 4^{F(-4+5+5)} + F(6). \\ 65562 &= 2 \times (F(6)^5 + 5 + F(6)). \end{aligned}$$

$$\begin{aligned} 65625 &= (5 - F(2))^{F(6)} + F(5 + 6). \\ 65628 &= (-8 + F(26 - 5)) \times 6. \\ 66912 &= 2 \times (F(19) \times F(6) + F(6)). \\ 67398 &= (8 \times 9)^{F(3)} \times F(7) + 6. \\ 68894 &= (F(4)^9 \times F(8) + F(8))/6. \\ 69631 &= -1 + F(3)^{F(6)} \times F(9) \times F(6). \\ 69632 &= (F(2) \times F(3))^{F(6)} \times F(9) \times F(6). \\ 69956 &= 6^5 \times 9 - F(9) + 6. \\ 71564 &= -F(4)^{F(6)} + (5 \times 1)^7. \\ 72384 &= F(4) \times 8^{F(3)} \times F(2 \times 7). \end{aligned}$$

$$\begin{aligned} 72893 &= -F(3) + (F(9) \times 8)^2 + 7. \\ 72999 &= 9 \times (-9 \times 9 + 2^{F(7)}). \\ 73539 &= -9 \times (F(3+5) - F(3)^{F(7)}). \\ 73674 &= (-4 + F(7)) \times (-6 + F(3)^{F(7)}). \\ 73719 &= 9 \times (-1^7 + F(3)^{F(7)}). \\ 73724 &= -4 + 2^{F(7)} \times (F(3) + 7). \\ 73728 &= (8 \times 2 - 7) \times F(3)^{F(7)}. \\ 73736 &= F(6) + F(3)^{F(7)} \times (F(3) + 7). \\ 73791 &= 1 \times 9 \times (7 + F(3)^{F(7)}). \\ 73971 &= ((1+7) \times F(9))^{F(3)} - F(7). \end{aligned}$$

$$\begin{aligned} 73984 &= (-4 + F(8)) \times F(9) \times F(3)^7. \\ 73991 &= ((-1+9) \times F(9))^{F(3)} + 7. \\ 73997 &= (7 \times F(9) + F(9))^{F(3)} + F(7). \\ 74088 &= (F(8) + F(8))^{-04+7}. \\ 74358 &= F((8-5) \times 3) \times F(4)^7. \\ 74366 &= F(6) + F(6+3) \times F(4)^7. \\ 74492 &= -2 + F(9) \times (4 + F(4)^7). \\ 74719 &= F(9) \times (1 + F(7)^{F(4)}) - F(7). \\ 75023 &= -F(3) + F(2^{05} - 7). \\ 75031 &= -1 + F(30 - 5) + 7. \end{aligned}$$

$$\begin{aligned} 75034 &= -4 + F(30 - 5) + F(7). \\ 75059 &= F(9) + F(5^{-05+7}). \\ 75258 &= F(8+5) + F(2^5 - 7). \\ 75536 &= -F(6 \times 3) - 5 + 5^7. \\ 75937 &= -F(7)^3 + 9 + 5^7. \\ 75983 &= -3 \times F(8) \times F(9) + 5^7. \\ 76648 &= 8 \times (F(4)^6 + F(6)) \times F(7). \\ 77748 &= (8 - F(4))^7 - F(7+7). \\ 77756 &= F(6) + 5^7 - F(7+7). \\ 78123 &= -F(3) + (-2 - 1 + 8)^7. \end{aligned}$$

$$\begin{aligned} 78138 &= (8 - 3)^{-1+8} + F(7). \\ 78159 &= F(9) + 5^{1^8 \times 7}. \\ 78358 &= F(8+5) + (-3 + 8)^7. \\ 78399 &= 9 \times (F(9) \times F(3)^8 + 7). \\ 79492 &= 2 \times (F(9)^{F(4)} + F(9) \times F(7)). \\ 79929 &= 9 \times (-2 + 9 \times F(9+7)). \\ 82824 &= 4 \times (-F(2) + F(8 \times 2)) \times F(8). \\ 82923 &= (32 \times 9)^2 - F(8). \\ 83478 &= -8 + F(7)^{F(4)} \times 38. \\ 83486 &= (-F(6) + F(8))^{F(4)} \times 38. \end{aligned}$$

$$\begin{aligned} 83498 &= (8 + 9)^4 - F(3) - F(8). \\ 85293 &= 3^{9-F(2)} \times (5 + 8). \\ 86016 &= (F(6)^{10-6}) \times F(8). \\ 86688 &= F(8) \times 86 \times 6 \times 8. \\ 87455 &= -5 \times (5 - F(4)^7 \times 8). \\ 88809 &= 90 \times F(8+8) - F(8). \\ 89355 &= (5 + 5^3 \times F(9)) \times F(8). \\ 89488 &= F(8+8)/F(4) \times F(9) \times 8. \\ 91976 &= -6 + (F(7) + 9) \times F(19). \\ 92991 &= (-1 + 9 \times F(9))^2 - F(9). \end{aligned}$$

$$\begin{aligned} 93296 &= F(6) \times (9 - 2)^3 \times F(9). \\ 94928 &= (82 \times F(9) + 4) \times F(9). \\ 97655 &= (-5 + 5^{F(6)})/(F(7) - 9). \\ 97824 &= 4 \times (F(28)/F(7) + 9). \\ 98183 &= 38 \times F(18) - 9. \\ 98239 &= F(9 \times 3)/2 + F(8) + 9. \\ 98245 &= 5 \times (F(4)^{F(2)+8} - F(9)). \\ 98425 &= 5 \times (2 + F(-4 + 8)^9). \\ 99688 &= (8 + 86 \times F(9)) \times F(9). \\ 99945 &= 5 \times (F(4)^9 + 9 \times F(9)). \end{aligned}$$

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