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Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations

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Abstract

*This paper brings magic squares of orders 3 to 10 in terms of **crazy representations**. These representations are of three types. One in increasing order of digits starting from 1. The second in decreasing order of digits ending in 1. The third is also in decreasing orders ending in 0. These representations are neither ending or starting from 9. Minimum possible representation way is applied. For example, we can write 123 as* 123 *or* $4! \times 3! - 21$ *or* $3 + ((2+1)! - 0!)!$*. These representations are with two extra operations, such as **factorial** and **square-root**. The magic squares from the order 3 to 9 are written only in once, where the magic square of order 10 is written twice. One as a normal way, the second as **block-bordered**, where inner part as **block-wise pandiagonal** magic square of order 8 with equal sum blocks of order 4. Previous works of similar kind is done with **single digit** [15], **single letter** [16] and **permutable base-power** [17].*

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1 Crazy Representations

In recent works [7, 8, 9, 10, 11, 12, 13], the author worked with **magic squares**. These works include **block-wise** and **block-bordered** magic square from order 3 to 47. Summarized work on magic square can be seen in [14]. Below are basic magic squares of orders 3 to 10, and their representations in three different ways. in terms of single letters. One in increasing order of digits starting from 1. The second in decreasing order of digits ending in 1. The third is also in decreasing orders ending in 0. These representations are neither ending or starting from 9. Minimum possible representation way is applied. For example, we can write 123 as 123 or $4! \times 3! - 21$ or $3 + ((2+1)! - 0!)!$. These representations are with two extra operations, such as **factorial** and **square-root**. Few exercises are also written. For similar kind of work using **single digit**, **single letter** and **permutable base-power** can be seen in [15, 16, 17]. Work on crazy representations can be seen in [1, 2, 3, 4, 5, 6].

2 Magic Square of Order 3

Example 2.1. *Let's consider a magic square of order 3 is given by*

			15
8	*1*	*6*	*15*
3	*5*	*7*	*15*
4	*9*	*2*	*15*
15	*15*	*15*	*15*

2.1 Examples

The examples below are based on the Example 2.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 2.2. *Based on* ***crazy representations*** *given in Appendix 12.1, the magic square of order 3 given in Example 2.1 is given by*

			$12+3$
1×2^3	1	$(1+2)!$	$12+3$
$1+2$	$1\times 2+3$	$1+2\times 3$	$12+3$
$12/3$	$12-3$	1×2	$12+3$
$12+3$	$12+3$	$12+3$	$12+3$

Example 2.3. *Based on* ***crazy representations*** *given in Appendix 12.2, the magic square of order 3 given in Example 2.1 is given by*

			$-3!+21$
3^2-1	1	$(2+1)!$	$-3!+21$
$2+1$	$3\times 2-1$	$3\times 2+1$	$-3!+21$
$3+2-1$	$3^2\times 1$	2×1	$-3!+21$
$-3!+21$	$-3!+21$	$-3!+21$	$-3!+21$

Example 2.4. *Based on* ***crazy representations*** *given in Appendix 12.3, the magic square of order 3 given in Example 2.1 is given by*

			$3+2+10$
$-2+10$	$0!$	$(2+1)!\times 0!$	$3+2+10$
$2+1\times 0!$	$(2+1)!-0!$	$(2+1)!+0!$	$3+2+10$
$2+1+0!$	$3^2\times 1\times 0!$	$1+0!$	$3+2+10$
$3+2+10$	$3+2+10$	$3+2+10$	$3+2+10$

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2.2 Exercises

Exercise 2.1. *Using the **crazy representations** given in Appendix 12.1, write the magic square of order 3 given below in terms of numbers:*

			$1\times2^{3!}+\sqrt{4}$
$(1+2)\times(3+4)$	$1-2+34$	12	$1\times2^{3!}+\sqrt{4}$
$1+2\times3!$	$-1+23$	$-1-2+34$	$1\times2^{3!}+\sqrt{4}$
$12\times3-4$	$-1+2\times3!$	1×23	$1\times2^{3!}+\sqrt{4}$
$1\times2^{3!}+\sqrt{4}$	$1\times2^{3!}+\sqrt{4}$	$1\times2^{3!}+\sqrt{4}$	$1\times2^{3!}+\sqrt{4}$

Exercise 2.2. *Using the **crazy representations** given in Appendix 12.2, write the magic square of order 3 given below in terms of numbers:*

			$4^3+2\times1$
21	$32+1$	$3!\times2\times1$	$4^3+2\times1$
$3!\times2+1$	$43-21$	$32-1$	$4^3+2\times1$
32×1	$3!\times2-1$	$(3!-2)!-1$	$4^3+2\times1$
$4^3+2\times1$	$4^3+2\times1$	$4^3+2\times1$	$4^3+2\times1$

Exercise 2.3. *Using the **crazy representations** given in Appendix 12.3, write the magic square of order 3 given below in terms of numbers:*

			$3\times(21+0!)$
$21\times0!$	$32+1\times0!$	$2+10$	$3\times(21+0!)$
$3!/2+10$	$21+0!$	$32-1\times0!$	$3\times(21+0!)$
$\sqrt{2^{10}}$	$3-2+10$	$3+2\times10$	$3\times(21+0!)$
$3\times(21+0!)$	$3\times(21+0!)$	$3\times(21+0!)$	$3\times(21+0!)$

3 Magic Square of Order 4

Example 3.1. *Let's consider a **pandiagonal** magic square of order 4 given by*

		34	*34*	*34*	*34*
	7	*12*	*1*	*14*	*34*
34	*2*	*13*	*8*	*11*	*34*
34	*16*	*3*	*10*	*5*	*34*
34	*9*	*6*	*15*	*4*	*34*
	34	*34*	*34*	*34*	*34*

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3.1 Examples

The examples below are based on the Example 3.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 3.2. *Based on* ***crazy representations*** *given in Appendix 12.1, the* ***pandiagonal*** *magic square of order 4 given in Example 3.1 is given by*

		$1^2\times 34$	$1^2\times 34$	$1^2\times 34$	$1^2\times 34$
	$1+2\times 3$	12	1	$1\times 2\times(3+4)$	$1^2\times 34$
$1^2\times 34$	1×2	$1+2\times 3!$	1×2^3	$-1+2\times 3!$	$1^2\times 34$
$1^2\times 34$	$12/3\times 4$	$1+2$	$\sqrt{12\times 3}+4$	$1\times 2+3$	$1^2\times 34$
$1^2\times 34$	$12-3$	$(1+2)!$	$12+3$	$12/3$	$1^2\times 34$
	$1^2\times 34$	$1^2\times 34$	$1^2\times 34$	$1^2\times 34$	$1^2\times 34$

Example 3.3. *Based on* ***crazy representations*** *given in Appendix 12.2, the* ***pandiagonal*** *magic square of order 4 given in Example 3.1 is given by*

		$4!+3^2+1$	$4!+3^2+1$	$4!+3^2+1$	$4!+3^2+1$
	$3\times 2+1$	$3!\times 2\times 1$	1	$(4+3)\times 2\times 1$	$4!+3^2+1$
$4!+3^2+1$	2×1	$3!\times 2+1$	3^2-1	$3!\times 2-1$	$4!+3^2+1$
$4!+3^2+1$	$4\times(3+2-1)$	$2+1$	3^2+1	$3\times 2-1$	$4!+3^2+1$
$4!+3^2+1$	$3^2\times 1$	$(2+1)!$	$-3!+21$	$3+2-1$	$4!+3^2+1$
	$4!+3^2+1$	$4!+3^2+1$	$4!+3^2+1$	$4!+3^2+1$	$4!+3^2+1$

Example 3.4. *Based on* ***crazy representations*** *given in Appendix 12.3, the* ***pandiagonal*** *magic square of order 4 given in Example 3.1 is given by*

		$32+1+0!$	$32+1+0!$	$32+1+0!$	$32+1+0!$
	$(2+1)!+0!$	$2+10$	$0!$	$3!-2+10$	$32+1+0!$
$32+1+0!$	$1+0!$	$3!/2+10$	$-2+10$	$3-2+10$	$32+1+0!$
$32+1+0!$	$3\times 2+10$	$2+1\times 0!$	$(3-2)\times 10$	$(2+1)!-0!$	$32+1+0!$
$32+1+0!$	$3^2\times 1\times 0!$	$(2+1)!\times 0!$	$3+2+10$	$2+1+0!$	$32+1+0!$
	$32+1+0!$	$32+1+0!$	$32+1+0!$	$32+1+0!$	$32+1+0!$

3.2 Exercises

Exercise 3.1. *Using the* ***crazy representations*** *given in Appendix 12.1, write the magic square of order 4 given below in terms of numbers:*

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		$(-12+34)\times 5$	$(-12+34)\times 5$	$(-12+34)\times 5$	$(-12+34)\times 5$
	1×23	$1^2\times 34$	$-1+2\times 3!$	$12+3!+4!$	$(-12+34)\times 5$
$(-12+34)\times 5$	12	$-1+2\times(-3+4!)$	$1+23$	$1-2+34$	$(-12+34)\times 5$
$(-12+34)\times 5$	$(-1+23)\times\sqrt{4}$	$1+2\times 3!$	$12\times 3-4$	$(1+2)\times(3+4)$	$(-12+34)\times 5$
$(-12+34)\times 5$	$-1-2+34$	$-1+23$	$1+2\times(-3+4!)$	$1\times 2\times(3+4)$	$(-12+34)\times 5$
	$(-12+34)\times 5$	$(-12+34)\times 5$	$(-12+34)\times 5$	$(-12+34)\times 5$	$(-12+34)\times 5$

Exercise 3.2. *Using the **crazy representations** given in Appendix 12.2, write the magic square of order 4 given below in terms of numbers:*

		$5\times(43-21)$	$5\times(43-21)$	$5\times(43-21)$	$5\times(43-21)$
	$(3!-2)!-1$	$4!+3^2+1$	$3!\times 2-1$	$43-2+1$	$5\times(43-21)$
$5\times(43-21)$	$3!\times 2\times 1$	$43-2\times 1$	$3+21$	$32+1$	$5\times(43-21)$
$5\times(43-21)$	$43+2-1$	$3!\times 2+1$	32×1	21	$5\times(43-21)$
$5\times(43-21)$	$32-1$	$43-21$	4^3-21	$(4+3)\times 2\times 1$	$5\times(43-21)$
	$5\times(43-21)$	$5\times(43-21)$	$5\times(43-21)$	$5\times(43-21)$	$5\times(43-21)$

Exercise 3.3. *Using the **crazy representations** given in Appendix 12.3, write the magic square of order 4 given below in terms of numbers:*

		$(3+2)!-10$	$(3+2)!-10$	$(3+2)!-10$	$(3+2)!-10$
	$3+2\times 10$	$32+1+0!$	$3-2+10$	$32+10$	$(3+2)!-10$
$(3+2)!-10$	$2+10$	$43-2\times 1\times 0!$	$(2+1+0!)!$	$32+1\times 0!$	$(3+2)!-10$
$(3+2)!-10$	$43+(21\times 0)!$	$3!/2+10$	$\sqrt{2^{10}}$	$21\times 0!$	$(3+2)!-10$
$(3+2)!-10$	$32-1\times 0!$	$21+0!$	$43+21\times 0$	$3!-2+10$	$(3+2)!-10$
	$(3+2)!-10$	$(3+2)!-10$	$(3+2)!-10$	$(3+2)!-10$	$(3+2)!-10$

4 Magic Square of Order 5

Example 4.1. *Let's consider a **pandiagonal** magic square of order 5 given by*

		65	65	65	65	65
	1	9	12	20	23	65
65	17	25	3	6	14	65
65	8	11	19	22	5	65
65	24	2	10	13	16	65
65	15	18	21	4	7	65
	65	65	65	65	65	65

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4.1 Examples

The examples below are based on the Example 4.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 4.2. *Based on **crazy representations** given in Appendix 12.1, the **pandiagonal** magic square of order 5 given in Example 4.1 is given by*

		$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$
	1	$12-3$	12	$1+23-4$	1×23	$1+2^{3!}$
$1+2^{3!}$	$12+3+\sqrt{4}$	$1+(-2+3!)!$	$1+2$	$(1+2)!$	$1\times 2\times(3+4)$	$1+2^{3!}$
$1+2^{3!}$	1×2^3	$-1+2\times 3!$	$1\times 23-4$	$-1+23$	$1\times 2+3$	$1+2^{3!}$
$1+2^{3!}$	$1+23$	1×2	$\sqrt{12\times 3}+4$	$1+2\times 3!$	$12/3\times 4$	$1+2^{3!}$
$1+2^{3!}$	$12+3$	$12+3!$	$(1+2)\times(3+4)$	$12/3$	$1+2\times 3$	$1+2^{3!}$
	$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$	$1+2^{3!}$

Example 4.3. *Based on **crazy representations** given in Appendix 12.2, the **pandiagonal** magic square of order 5 given in Example 4.1 is given by*

		4^3+2-1	4^3+2-1	4^3+2-1	4^3+2-1	4^3+2-1
	1	$3^2\times 1$	$3!\times 2\times 1$	$4\times(3\times 2-1)$	$(3!-2)!-1$	4^3+2-1
4^3+2-1	$\sqrt{4}-3!+21$	$(3!-2)!+1$	$2+1$	$(2+1)!$	$(4+3)\times 2\times 1$	4^3+2-1
4^3+2-1	3^2-1	$3!\times 2-1$	$4-3!+21$	$43-21$	$3\times 2-1$	4^3+2-1
4^3+2-1	$3+21$	2×1	3^2+1	$3!\times 2+1$	$4\times(3+2-1)$	4^3+2-1
4^3+2-1	$-3!+21$	$-3+21$	21	$3+2-1$	$3\times 2+1$	4^3+2-1
	4^3+2-1	4^3+2-1	4^3+2-1	4^3+2-1	4^3+2-1	4^3+2-1

Example 4.4. *Based on **crazy representations** given in Appendix 12.3, the **pandiagonal** magic square of order 5 given in Example 4.1 is given by*

		$43+21+0!$	$43+21+0!$	$43+21+0!$	$43+21+0!$	$43+21+0!$
	$0!$	$3^2\times 1\times 0!$	$2+10$	2×10	$3+2\times 10$	$43+21+0!$
$43+21+0!$	$-3+2\times 10$	$3+21+0!$	$2+1\times 0!$	$(2+1)!\times 0!$	$3!-2+10$	$43+21+0!$
$43+21+0!$	$-2+10$	$3-2+10$	3^2+10	$21+0!$	$(2+1)!-0!$	$43+21+0!$
$43+21+0!$	$(2+1+0!)!$	$1+0!$	$(3-2)\times 10$	$3!/2+10$	$3\times 2+10$	$43+21+0!$
$43+21+0!$	$3+2+10$	$3!+2+10$	$21\times 0!$	$2+1+0!$	$(2+1)!+0!$	$43+21+0!$
	$43+21+0!$	$43+21+0!$	$43+21+0!$	$43+21+0!$	$43+21+0!$	$43+21+0!$

4.2 Exercises

Exercise 4.1. *Using the **crazy representations** given in Appendix 12.1, write the magic square of order 5 given below in terms of numbers:*

		$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$
	$-1+2\times 3!$	$-1+23$	$1-2+34$	$(-1+23)\times\sqrt{4}$	$1+2\times(3+4!)$	$(1-2+34)\times 5$
$(1-2+34)\times 5$	$1+2\times(-3+4!)$	$1\times 2\times(3+4!)$	$12+3$	$(1+2)\times(3+4)$	$12\times 3-4$	$(1-2+34)\times 5$
$(1-2+34)\times 5$	$1+(-2+3!)!$	$-1-2+34$	$12+3!+4!$	$-1+2\times(3+4!)$	$1\times 2\times(3+4)$	$(1-2+34)\times 5$
$(1-2+34)\times 5$	$(1+2\times 3!)\times 4$	$1+2\times 3!$	$1+23$	1^2+34	$-1+2\times(-3+4!)$	$(1-2+34)\times 5$
$(1-2+34)\times 5$	$1^2\times 34$	$-1+23\times\sqrt{4}$	$(1+2)^3+4!$	12	1×23	$(1-2+34)\times 5$
	$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$	$(1-2+34)\times 5$

Exercise 4.2. *Using the **crazy representations** given in Appendix 12.2, write the magic square of order 5 given below in terms of numbers:*

		$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$
	$3!\times 2-1$	$43-21$	$32+1$	$43+2-1$	$4!+32-1$	$4!\times 3!+21$
$4!\times 3!+21$	4^3-21	$\sqrt{4}\times(3!+21)$	$-3!+21$	21	32×1	$4!\times 3!+21$
$4!\times 3!+21$	$(3!-2)!+1$	$32-1$	$43-2+1$	$(4!+3)\times 2-1$	$(4+3)\times 2\times 1$	$4!\times 3!+21$
$4!\times 3!+21$	$4\times(3!\times 2+1)$	$3!\times 2+1$	$3+21$	$3!^2-1$	$43-2\times 1$	$4!\times 3!+21$
$4!\times 3!+21$	$4!+3^2+1$	$43+2\times 1$	$4!\times 3-21$	$3!\times 2\times 1$	$(3!-2)!-1$	$4!\times 3!+21$
	$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$	$4!\times 3!+21$

Exercise 4.3. *Using the **crazy representations** given in Appendix 12.3, write the magic square of order 5 given below in terms of numbers:*

		$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$
	$3-2+10$	$21+0!$	$32+1\times 0!$	$43+(21\times 0)!$	$43+2+10$	$4!\times 3!+21\times 0!$
$4!\times 3!+21\times 0!$	$43+21\times 0$	$4+(3+2)\times 10$	$3+2+10$	$21\times 0!$	$\sqrt{2^{10}}$	$4!\times 3!+21\times 0!$
$4!\times 3!+21\times 0!$	$3+21+0!$	$32-1\times 0!$	$32+10$	$(4!+3)\times 2-1\times 0!$	$3!-2+10$	$4!\times 3!+21\times 0!$
$4!\times 3!+21\times 0!$	4^3-2-10	$3!/2+10$	$(2+1+0!)!$	$3!^2-1\times 0!$	$43-2\times 1\times 0!$	$4!\times 3!+21\times 0!$
$4!\times 3!+21\times 0!$	$32+1+0!$	$43+2\times 1\times 0!$	$43-2+10$	$2+10$	$3+2\times 10$	$4!\times 3!+21\times 0!$
	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$	$4!\times 3!+21\times 0!$

5 Magic Square of Order 6

Example 5.1. *Let's consider a magic square of order 6 given by*

						111
1	*35*	*34*	*33*	*2*	*6*	*111*
30	*8*	*28*	*9*	*11*	*25*	*111*
24	*23*	*15*	*16*	*20*	*13*	*111*
18	*14*	*21*	*22*	*17*	*19*	*111*
7	*26*	*10*	*27*	*29*	*12*	*111*
31	*5*	*3*	*4*	*32*	*36*	*111*
111	*111*	*111*	*111*	*111*	*111*	*111*

5.1 Examples

The examples below are based on the Example 5.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 5.2. *Based on **crazy representations** given in Appendix 12.1, the magic square of order 6 given in Example 5.1 is given by*

						$-12\times 3/4+5!$
1	1^2+34	$1^2\times 34$	$1-2+34$	1×2	$(1+2)!$	$-12\times 3/4+5!$
$(12+3)\times\sqrt{4}$	1×2^3	$1+23+4$	$12-3$	$-1+2\times 3!$	$1+(-2+3!)!$	$-12\times 3/4+5!$
$1+23$	1×23	$12+3$	$12/3\times 4$	$1+23-4$	$1+2\times 3!$	$-12\times 3/4+5!$
$12+3!$	$1\times 2\times(3+4)$	$(1+2)\times(3+4)$	$-1+23$	$12+3+\sqrt{4}$	$1\times 23-4$	$-12\times 3/4+5!$
$1+2\times 3$	$1+23+\sqrt{4}$	$\sqrt{12\times 3}+4$	$(1+2)^3$	$1\times 2+3+4!$	12	$-12\times 3/4+5!$
$-1-2+34$	$1\times 2+3$	$1+2$	$12/3$	$12\times 3-4$	12×3	$-12\times 3/4+5!$
$-12\times 3/4+5!$	$-12\times 3/4+5!$	$-12\times 3/4+5!$	$-12\times 3/4+5!$	$-12\times 3/4+5!$	$-12\times 3/4+5!$	$-12\times 3/4+5!$

Example 5.3. *Based on **crazy representations** given in Appendix 12.2, the magic square of order 6 given in Example 5.1 is given by*

						$5!-4-3-2\times 1$
1	$3!^2-1$	$\sqrt{4}+32\times 1$	$\sqrt{4}+32\times 1$	2×1	$(2+1)!$	$5!-4-3-2\times 1$
$-\sqrt{4}+32\times 1$	3^2-1	$4+3+21$	$3^2\times 1$	$3!\times 2-1$	$(3!-2)!+1$	$5!-4-3-2\times 1$
$3+21$	$(3!-2)!-1$	$-3!+21$	$4\times(3+2-1)$	$4\times(3\times 2-1)$	$3!\times 2+1$	$5!-4-3-2\times 1$
$-3+21$	$(4+3)\times 2\times 1$	21	$43-21$	$(\sqrt{4}-3!)+21$	$4-3!+21$	$5!-4-3-2\times 1$
$3\times 2+1$	$\sqrt{4}+3+21$	3^2+1	$3!+21$	$\sqrt{4^3}+21$	$3!\times 2\times 1$	$5!-4-3-2\times 1$
$32-1$	$3\times 2-1$	$3{=}2+1$	$3+2-1$	32×1	$3!^2\times 1$	$5!-4-3-2\times 1$
$5!-4-3-2\times 1$	$5!-4-3-2\times 1$	$5!-4-3-2\times 1$	$5!-4-3-2\times 1$	$5!-4-3-2\times 1$	$5!-4-3-2\times 1$	$5!-4-3-2\times 1$

Example 5.4. *Based on **crazy representations** given in Appendix 12.3, the magic square of order 6 given in Example 5.1 is given by*

						$-5-4+3!\times 2\times 10$
$0!$	$3!^2-1\times 0!$	$32+1+0!$	$32+1\times 0!$	$1+0!$	$(2+1)!\times 0!$	$-5-4+3!\times 2\times 10$
$32-1-0!$	$-2+10$	$3!+21+0!$	$3^2\times 1\times 0!$	$3-2+10$	$3+21+0!$	$-5-4+3!\times 2\times 10$
$(2+1+0!)!$	$3+2\times 10$	$3+2+10$	$3\times 2+10$	2×10	$3!/2+10$	$-5-4+3!\times 2\times 10$
$3!+2+10$	$3!-2+10$	$21\times 0!$	$21+0!$	$-3+2\times 10$	3^2+10	$-5-4+3!\times 2\times 10$
$(2+1)!+0!$	$3!+2\times 10$	10	$3!+21\times 0!$	$-3+\sqrt{2^{10}}$	$2+10$	$-5-4+3!\times 2\times 10$
$32-1\times 0!$	$(2+1)!-0!$	$2+1\times 0!$	$2+1+0!$	$\sqrt{2^{10}}$	$3\times(2+10)$	$-5-4+3!\times 2\times 10$
$-5-4+3!\times 2\times 10$	$-5-4+3!\times 2\times 10$	$-5-4+3!\times 2\times 10$	$-5-4+3!\times 2\times 10$	$-5-4+3!\times 2\times 10$	$-5-4+3!\times 2\times 10$	$-5-4+3!\times 2\times 10$

5.2 Exercises

Exercise 5.1. *Using the* ***crazy representations*** *given in Appendix 12.1, write the magic square of order 6 given below in terms of numbers:*

						$(1+2)!!/3-4-5$
$-1+2\times 3!$	$1+2^{3!}$	$1\times 2^{3!}$	$-1+2^{3!}$	12	$12/3\times 4$	$(1+2)!!/3-4-5$
$12\times 3+4\times 5$	$-1+23$	$1\times 2\times(3+4!)$	1×23	$1+(-2+3!)!$	$(1+2)^3+4!$	$(1+2)!!/3-4-5$
$12+34$	$-1+23\times\sqrt{4}$	$1-2+34$	$1^2\times 34$	$12+3!+4!$	$-1-2+34$	$(1+2)!!/3-4-5$
12×3	12×3	12×3	$(-1+23)\times\sqrt{4}$	1^2+34	$-1+2\times(-3+4!)$	$(1+2)!!/3-4-5$
$(1+2)\times(3+4)$	$(1+2\times 3!)\times 4$	$1+23$	$-1+2\times(3+4!)$	$1+2\times(3+4!)$	$1+23+\sqrt{4}$	$(1+2)!!/3-4-5$
$1+2^{3!}-4$	$12+3$	$1+2\times 3!$	$1\times 2\times(3+4)$	$1\times 2^{3!}-\sqrt{4}$	$1\times 2^{3!}+\sqrt{4}$	$(1+2)!!/3-4-5$
$(1+2)!!/3-4-5$	$(1+2)!!/3-4-5$	$(1+2)!!/3-4-5$	$(1+2)!!/3-4-5$	$(1+2)!!/3-4-5$	$(1+2)!!/3-4-5$	$(1+2)!!/3-4-5$

Exercise 5.2. *Using the* ***crazy representations*** *given in Appendix 12.2, write the magic square of order 6 given below in terms of numbers:*

						$(5!-43)\times(2+1)$
$3!\times 2-1$	4^3+2-1	$43+21$	3×21	$3!\times 2\times 1$	$4\times(3+2-1)$	$(5!-43)\times(2+1)$
$4!+32\times 1$	$43-21$	$\sqrt{4}\times(3!+21)$	$(3!-2)!-1$	$(3!-2)!+1$	$4!\times 3-21$	$(5!-43)\times(2+1)$
$43+2+1$	$43+2\times 1$	$32+1$	$\sqrt{4}+32\times 1$	$43-2+1$	$32-1$	$(5!-43)\times(2+1)$
$3!^2\times 1$	32×1	4^3-21	$43+2-1$	$3!^2-1$	$43-2\times 1$	$(5!-43)\times(2+1)$
21	$4\times(3!\times 2+1)$	$3+21$	$(4!+3)\times 2-1$	$4!+32-1$	$\sqrt{4}+3+21$	$(5!-43)\times(2+1)$
4^3-2-1	$-3!+21$	$3!\times 2+1$	$(4+3)\times 2\times 1$	$4^3-2\times 1$	$4^3+2\times 1$	$(5!-43)\times(2+1)$
$(5!-43)\times(2+1)$	$(5!-43)\times(2+1)$	$(5!-43)\times(2+1)$	$(5!-43)\times(2+1)$	$(5!-43)\times(2+1)$	$(5!-43)\times(2+1)$	$(5!-43)\times(2+1)$

Exercise 5.3. *Using the* ***crazy representations*** *given in Appendix 12.3, write the magic square of order 6 given below in terms of numbers:*

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						$4!-3+210$
$3-2+10$	$43+21+0!$	$32\times(1+0!)$	$3\times 21\times 0!$	$2+10$	$3\times 2+10$	$4!-3+210$
4^3+2-10	$21+0!$	$4+(3+2)\times 10$	$3+2\times 10$	$3+21+0!$	$43-2+10$	$4!-3+210$
$3!^2+10$	$43+2\times 1\times 0!$	$32+1\times 0!$	$32+1+0!$	$32+10$	$32-1\times 0!$	$4!-3+210$
$3\times(2+10)$	$\sqrt{2^{10}}$	$43+21\times 0$	$43+(21\times 0)!$	$3!^2-1\times 0!$	$43-2\times 1\times 0!$	$4!-3+210$
$21\times 0!$	4^3-2-10	$(2+1+0!)!$	$(4!+3)\times 2-1\times 0!$	$43+2+10$	$3!+2\times 10$	$4!-3+210$
$4^3-2-1\times 0!$	$3+2+10$	$3!/2+10$	$3!-2+10$	$3\times 21-0!$	$3\times(21+0!)$	$4!-3+210$
$4!-3+210$	$4!-3+210$	$4!-3+210$	$4!-3+210$	$4!-3+210$	$4!-3+210$	$4!-3+210$

6 Magic Square of Order 7

Example 6.1. *Let's consider a* ***pandiagonal*** *magic square of order 7 is given by*

		175	*175*	*175*	*175*	*175*	*175*	*175*
	1	*9*	*17*	*25*	*33*	*41*	*49*	*175*
175	*40*	*48*	*7*	*8*	*16*	*24*	*32*	*175*
175	*23*	*31*	*39*	*47*	*6*	*14*	*15*	*175*
175	*13*	*21*	*22*	*30*	*38*	*46*	*5*	*175*
175	*45*	*4*	*12*	*20*	*28*	*29*	*37*	*175*
175	*35*	*36*	*44*	*3*	*11*	*19*	*27*	*175*
175	*18*	*26*	*34*	*42*	*43*	*2*	*10*	*175*
	175	*175*	*175*	*175*	*175*	*175*	*175*	*175*

6.1 Examples

The examples below are based on the Example 6.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 6.2. *Based on* ***crazy representations*** *given in Appendix 12.1, the* ***pandiagonal*** *magic square of order 7 given in Example 6.1 is given by*

1	$12-3$	$12+3+\sqrt{4}$	$1+(-2+3!)!$	$1-2+34$	$-1+2\times(-3+4!)$	$1+2\times 3!\times 4$
$12\times 3+4$	$(1+23)\times\sqrt{4}$	$1+2\times 3$	1×2^3	$12/3\times 4$	$1+23$	$12\times 3-4$
1×23	$-1-2+34$	$12+3+4!$	$1\times 23+4!$	$(1+2)!$	$1\times 2\times(3+4)$	$12+3$
$1+2\times 3!$	$(1+2)\times(3+4)$	$-1+23$	$(12+3)\times\sqrt{4}$	$12\times 3+\sqrt{4}$	$12+34$	$1\times 2+3$
$-1+23\times\sqrt{4}$	$12/3$	12	$1+23-4$	$1+23+4$	$1\times 2+3+4!$	$1+2+34$
1^2+34	12×3	$(-1+23)\times\sqrt{4}$	$1+2$	$-1+2\times 3!$	$1\times 23-4$	$(1+2)^3$
$12+3!$	$1+23+\sqrt{4}$	$1^2\times 34$	$12+3!+4!$	$1+2\times(-3+4!)$	1×2	$\sqrt{12\times 3}+4$

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In this case the magic sum is given by

Example 6.3. *Based on **crazy representations** given in Appendix 12.2, the **pandiagonal** magic square of order 7 given in Example 6.1 is given by*

1	$3^2 \times 1$	$(\sqrt{4} - 3!) + 21$	$(3! - 2)! + 1$	$32 + 1$	$43 - 2 \times 1$	$(4+3)^2 \times 1$
$43 - 2 - 1$	$(4+3)^2 - 1$	$3 \times 2 + 1$	$3^2 - 1$	$4 \times (3 + 2 - 1)$	$3 + 21$	32×1
$(3! - 2)! - 1$	$32 - 1$	$4 + 3!^2 - 1$	$4 \times 3! \times 2 - 1$	$(2+1)!$	$(4+3) \times 2 \times 1$	$-3! + 21$
$3! \times 2 + 1$	21	$43 - 21$	$-\sqrt{4} + 32 \times 1$	$\sqrt{4} + 3!^2 \times 1$	$43 + 2 + 1$	$3 \times 2 - 1$
$43 + 2 \times 1$	$3 + 2 - 1$	$3! \times 2 \times 1$	$4 \times (3 \times 2 - 1)$	$4 + 3 + 21$	$\sqrt{4^3} + 21$	$3!^2 + 1$
$3!^2 - 1$	$3!^2 \times 1$	$43 + 2 - 1$	$2 + 1$	$3! \times 2 - 1$	$4 - 3! + 21$	$3! + 21$
$-3 + 21$	$\sqrt{4} + 3 + 21$	$\sqrt{4} + 32 \times 1$	$43 - 2 + 1$	$4^3 - 21$	2×1	$3^2 + 1$

Example 6.4. *Based on **crazy representations** given in Appendix 12.3, the **pandiagonal** magic square of order 7 given in Example 6.1 is given by*

$0!$	$3^2 \times 1 \times 0!$	$-3 + 2 \times 10$	$3 + 21 + 0!$	$32 + 1 \times 0!$	$43 - 2 \times 1 \times 0!$	$(4+3)^2 \times 1 \times 0!$
$(3! - 2) \times 10$	$3! \times (-2 + 10)$	$(2+1)! + 0!$	$-2 + 10$	$3 \times 2 + 10$	$(2 + 1 + 0!)!$	$\sqrt{2^{10}}$
$3 + 2 \times 10$	$32 - 1 \times 0!$	$(4+3)^2 - 10$	$4! + 3 + 2 \times 10$	$(2+1)! \times 0!$	$3! - 2 + 10$	$3 + 2 + 10$
$3!/2 + 10$	$21 \times 0!$	$21 + 0!$	$32 - 1 - 0!$	$3!^2 + 1 + 0!$	$3!^2 + 10$	$(2+1)! - 0!$
$43 + 2 \times 1 \times 0!$	$2 + 1 + 0!$	$2 + 10$	2×10	$3! + 21 + 0!$	$-3 + \sqrt{2^{10}}$	$3!^2 + 1 \times 0!$
$3!^2 - 1 \times 0!$	$3 \times (2 + 10)$	$43 + (21 \times 0)!$	$2 + 1 \times 0!$	$3 - 2 + 10$	$3^2 + 10$	$3! + 21 \times 0!$
$3! + 2 + 10$	$3! + 2 \times 10$	$32 + 1 + 0!$	$32 + 10$	$43 + 21 \times 0$	$1 + 0!$	10

6.2 Exercises

Exercise 6.1. *Using the **crazy representations** given in Appendix 12.1, write the magic square of order 7 given below in terms of numbers:*

$-1 + 2 \times 3!$	$-1 + 23$	$1 - 2 + 34$	$(-1 + 23) \times \sqrt{4}$	$1 + 2 \times (3 + 4!)$	$1 \times 2^{3!} + \sqrt{4}$	$-1 + 2 \times (34 + 5)$
$1 + 2^{3!}$	$12 \times 3! + 4$	$12 + 3 + \sqrt{4}$	$(1+2) \times (3+4)$	$12 \times 3 - 4$	$1 + 2 \times (-3 + 4!)$	$1 \times 2 \times (3 + 4!)$
$12 + 3! + 4!$	$-1 + 2 \times (3 + 4!)$	$1 \times 2^{3!}$	$1 + 2 + 3 \times 4!$	$12/3 \times 4$	$(1+2)^3$	$-1 - 2 + 34$
$1 + 23 + \sqrt{4}$	$1 + 2 + 34$	$-1 + 2 \times (-3 + 4!)$	$(1 + 2 \times 3!) \times 4$	$-1 + 2^{3!}$	$12 \times 3! + \sqrt{4}$	$12 + 3$
$1^2 + 3 \times 4!$	$1 \times 2 \times (3 + 4)$	$=1 + (-2 + 3!)!$	12×3	$1 \times 23 + 4!$	$(1+2)^3 + 4!$	$1 \times 2^{3!} - \sqrt{4}$
$-1 + 2 \times (34 - 5)$	$=1 + 2^{3!} - 4$	$12 \times 3!$	$1 + 2 \times 3!$	$1 + 23$	$1^2 + 34$	$12 + 34$
$1^2 \times 34$	$-1 + 23 \times \sqrt{4}$	$12 \times 3 + 4 \times 5$	$-1 + 2 \times 34$	$1 - 2 + 3 \times 4!$	12	1×23

Exercise 6.2. *Using the **crazy representations** given in Appendix 12.2, write the magic square of order 7 given below in terms of numbers:*

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$3! \times 2 - 1$	$43 - 21$	$32 + 1$	$43 + 2 - 1$	$4! + 32 - 1$	$4^3 + 2 \times 1$	$5 - 4 \times (3 - 21)$
$4^3 + 2 - 1$	$(-5 + 43) \times 2 \times 1$	$(\sqrt{4} - 3!) + 21$	*21*	32×1	$4^3 - 21$	$\sqrt{4} \times (3! + 21)$
$43 - 2 + 1$	$(4! + 3) \times 2 - 1$	$43 + 21$	$4! \times 3 + 2 + 1$	$4 \times (3 + 2 - 1)$	$3! + 21$	$32 - 1$
$\sqrt{4} + 3 + 21$	$3!^2 + 1$	$43 - 2 \times 1$	$4 \times (3! \times 2 + 1)$	3×21	$4! \times 3 + 2 \times 1$	$-3! + 21$
$4! \times 3 + 2 - 1$	$(4 + 3) \times 2 \times 1$	$(3! - 2)! + 1$	$3!^2 \times 1$	$4 \times 3! \times 2 - 1$	$4! \times 3 - 21$	$4^3 - 2 \times 1$
$4! + 32 + 1$	$4^3 - 2 - 1$	$4 \times (-3 + 21)$	$3! \times 2 + 1$	$3 + 21$	$3!^2 - 1$	$43 + 2 + 1$
$\sqrt{4} + 32 \times 1$	$43 + 2 \times 1$	$4! + 32 \times 1$	$4 + 3 \times 21$	$4! \times 3 - 2 + 1$	$3! \times 2 \times 1$	$(3! - 2)! - 1$

Exercise 6.3. *Using the* ***crazy representations*** *given in Appendix 12.3, write the magic square of order 7 given below in terms of numbers:*

$3 - 2 + 10$	$21 + 0!$	$32 + 1 \times 0!$	$43 + (21 \times 0)!$	$43 + 2 + 10$	$3 \times (21 + 0!)$	$-4 + 3^{2+1+0!}$
$43 + 21 + 0!$	$43 \times 2 - 10$	$-3 + 2 \times 10$	$21 \times 0!$	$\sqrt{2^{10}}$	$43 + 21 \times 0$	$4 + (3 + 2) \times 10$
$32 + 10$	$(4! + 3) \times 2 - 1 \times 0!$	$32 \times (1 + 0!)$	$4! \times 3 + 2 + 1 \times 0!$	$3 \times 2 + 10$	$3! + 21 \times 0!$	$32 - 1 \times 0!$
$3! + 2 \times 10$	$3!^2 + 1 \times 0!$	$43 - 2 \times 1 \times 0!$	$4^3 - 2 - 10$	$3 \times 21 \times 0!$	$(4!/3)^2 + 10$	$3 + 2 + 10$
$4! \times 3 + 2 - 1 \times 0!$	$3! - 2 + 10$	$3 + 21 + 0!$	$3 \times (2 + 10)$	$4! + 3 + 2 \times 10$	$43 - 2 + 10$	$3 \times 21 - 0!$
$4! + 32 + 1 \times 0!$	$4^3 - 2 - 1 \times 0!$	$3! \times (2 + 10)$	$3!/2 + 10$	$(2 + 1 + 0!)!$	$3!^2 - 1 \times 0!$	$3!^2 + 10$
$32 + 1 + 0!$	$43 + 2 \times 1 \times 0!$	$4^3 + 2 - 10$	$4 + 3 \times 21 \times 0!$	$\sqrt{(3 \times 2 + 1)! + 0!}$	$2 + 10$	$3 + 2 \times 10$

7 Magic Square of Order 8

Example 7.1. *Let's consider a* ***pan magic square*** *of order 8 is given by*

		260	*260*	*260*	*260*	*260*	*260*	*260*	*260*
	25	*48*	*1*	*56*	*26*	*47*	*2*	*55*	*260*
260	*8*	*49*	*32*	*41*	*7*	*50*	*31*	*42*	*260*
260	*64*	*9*	*40*	*17*	*63*	*10*	*39*	*18*	*260*
260	*33*	*24*	*57*	*16*	*34*	*23*	*58*	*15*	*260*
260	*27*	*46*	*3*	*54*	*28*	*45*	*4*	*53*	*260*
260	*6*	*51*	*30*	*43*	*5*	*52*	*29*	*44*	*260*
260	*62*	*11*	*38*	*19*	*61*	*12*	*37*	*20*	*260*
260	*35*	*22*	*59*	*14*	*36*	*21*	*60*	*13*	*260*
	260	*260*	*260*	*260*	*260*	*260*	*260*	*260*	*260*

7.1 Examples

The examples below are based on the Example 7.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 7.2. *Based on* ***crazy representations*** *given in Appendix 12.1, the* ***pandiagonal*** *magic square of order 8 given in Example 7.1 is given by*

$1+(-2+3!)!$	$(1+23)\times\sqrt{4}$	1	$12\times 3+4\times 5$	$1+23+\sqrt{4}$	$1\times 23+4!$	1×2	$1+2\times(3+4!)$
1×2^3	$1+2\times 3!\times 4$	$12\times 3-4$	$-1+2\times(-3+4!)$	$1+2\times 3$	$(1+(-2+3!)!)\times\sqrt{4}$	$-1-2+34$	$12+3!+4!$
$1\times 2^{3!}$	$12-3$	$12\times 3+4$	$12+3+\sqrt{4}$	$-1+2^{3!}$	$\sqrt{12\times 3}+4$	$12+3+4!$	$12+3!$
$1-2+34$	$1+23$	$-1+2\times(34-5)$	$12/3\times 4$	$1^2\times 34$	1×23	$1\times 2\times(34-5)$	$12+3$
$(1+2)^3$	$12+34$	$1+2$	$1\times 2\times(3+4!)$	$1+23+4$	$-1+23\times\sqrt{4}$	$12/3$	$-1+2\times(3+4!)$
$(1+2)!$	$(1+2)^3+4!$	$(12+3)\times\sqrt{4}$	$1+2\times(-3+4!)$	$1\times 2+3$	$(1+2\times 3!)\times 4$	$1\times 2+3+4!$	$(-1+23)\times\sqrt{4}$
$1\times 2^{3!}-\sqrt{4}$	$-1+2\times 3!$	$12\times 3+\sqrt{4}$	$1\times 23-4$	$1+2^{3!}-4$	12	$1+2+34$	$1+23-4$
1^2+34	$-1+23$	$-1+2^{3!}-4$	$1\times 2\times(3+4)$	12×3	$(1+2)\times(3+4)$	$(12+3)\times 4$	$1+2\times 3!$

In this case the **magic sums** of magic square of order 8 is given by

$$\boldsymbol{S_{8\times 8}} := (1+2^{3!})\times 4$$

In this case the blocks of order 4 are also **pandiagonal** magic squares with equal magic sums given by

$$\boldsymbol{S_{4\times 4}} := (1+2^{3!})\times\sqrt{4}$$

Example 7.3. *Based on* ***crazy representations*** *given in Appendix 12.2, the* ***pandiagonal*** *magic square of order 8 given in Example 7.1 is given by*

$(3!-2)!+1$	$(4+3)^2-1$	1	$4!+32\times 1$	$\sqrt{4}+3+21$	$4\times 3!\times 2-1$	2×1	$4!+32-1$
3^2-1	$(4+3)^2\times 1$	32×1	$43-2\times 1$	$3\times 2+1$	$(4+3)^2+1$	$32-1$	$43-2+1$
$43+21$	$3^2\times 1$	$43-2-1$	$\sqrt{4}-3!+21$	3×21	3^2+1	$4+3!^2-1$	$-3+21$
$32+1$	$3+21$	$4!+32+1$	$4\times(3+2-1)$	$\sqrt{4}+32\times 1$	$(3!-2)!-1$	$4^3-(2+1)!$	$-3!+21$
$3!+21$	$43+2+1$	$2+1$	$\sqrt{4}\times(3!+21)$	$4+3+21$	$43+2\times 1$	$3+2-1$	$(4!+3)\times 2-1$
$(2+1)!$	$4!\times 3-21$	$-\sqrt{4}+32\times 1$	4^3-21	$3\times 2-1$	$4\times(3!\times 2+1)$	$\sqrt{4^3}+21$	$43+2-1$
$4^3-2\times 1$	$3!\times 2-1$	$\sqrt{4}+3!^2\times 1$	$4-3!+21$	4^3-2-1	$3!\times 2\times 1$	$3!^2+1$	$4\times(3\times 2-1)$
$3!^2-1$	$43-21$	$-4+3\times 21$	$(4+3)\times 2\times 1$	$3!^2\times 1$	21	$4\times(-3!+21)$	$3!\times 2+1$

In this case the **magic sums** of magic square of order 8 is given by

$$\boldsymbol{S_{8\times 8}} := 5\times 4\times(3!\times 2+1)$$

In this case the blocks of order 4 are also **pandiagonal** magic squares with equal magic sums given by

$$\boldsymbol{S_{4\times 4}} := 4+3!\times 21$$

Example 7.4. *Based on* ***crazy representations*** *given in Appendix 12.3, the* ***pandiagonal*** *magic square of order 8 given in Example 7.1 is given by*

$3+21+0!$	$3!\times(-2+10)$	$0!$	4^3+2-10	$3!+2\times10$	$4!+3+2\times10$	$1+0!$	$43+2+10$
$-2+10$	$(4+3)^2\times1\times0!$	$\sqrt{2^{10}}$	$43-2\times1\times0!$	$(2+1)!+0!$	$(3+2)\times10$	$32-1\times0!$	$32+10$
$32\times(1+0!)$	$3^2\times1\times0!$	$(3!-2)\times10$	$-3+2\times10$	$3\times21\times0!$	10	$(4+3)^2-10$	$3!+2+10$
$32+1\times0!$	$(2+1+0!)!$	$4!+32+1\times0!$	$3\times2+10$	$32+1+0!$	$3+2\times10$	$4!+32+1+0!$	$3+2+10$
$3!+21\times0!$	$3!^2+10$	$2+1\times0!$	$4+(3+2)\times10$	$3!+21+0!$	$43+2\times1\times0!$	$2+1+0!$	$(4!+3)\times2-1\times0!$
$(2+1)!\times0!$	$43-2+10$	$32-1-0!$	$43+21\times0$	$(2+1)!-0!$	4^3-2-10	$-3+\sqrt{2^{10}}$	$43+(21\times0)!$
$3\times21-0!$	$3-2+10$	$3!^2+1+0!$	3^2+10	$4^3-2-1\times0!$	$2+10$	$3!^2+1\times0!$	2×10
$3!^2-1\times0!$	$21+0!$	$(4+3)^2+10$	$3!-2+10$	$3\times(2+10)$	$21\times0!$	$3\times2\times10$	$3!/2+10$

In this case the **magic sums** of magic square of order 8 is given by

$$\boldsymbol{S_{8\times8}} := (4\times3!+2)\times10$$

In this case the blocks of order 4 are also **pandiagonal** magic squares with equal magic sums given by

$$\boldsymbol{S_{4\times4}} := (3+2)!+10$$

7.2 Exercises

Exercise 7.1. *Using the **crazy representations** given in Appendix 12.1, write the magic square of order 8 given below in terms of numbers:*

$-1+23\times\sqrt{4}$	$1\times2\times(34-5)$	$-1+2\times3!$	$12\times(3+4)$	1^2+34	$1\times2\times34$	$(1+2)\times(3+4)$	$12\times3!+\sqrt{4}$
$1\times2\times(3+4)$	$1^2\times3^4$	$(1+23)\times\sqrt{4}$	$1+2\times(3+4!)$	$1+23$	$1-2+3\times4!$	$12\times3+\sqrt{4}$	$1+2^{3!}$
$(-1+23)\times4$	$12+3$	$1\times2\times(3+4!)$	$-1+2\times(-3+4!)$	$-1-2+3^4$	$1+(-2+3!)!$	$1\times2^{3!}$	$-1-2+34$
$(1+2)^3+4!$	$(-1+23)\times\sqrt{4}$	$1+2\times(-3+45)$	$12+3!$	$1+2^{3!}-4$	$1^2\times34$	$1+2+3\times4!$	$1+23+4$
$12+34$	$-1+2\times(34-5)$	12	$1\times2+3^4$	12×3	$-1+2\times34$	$-1+23$	$1^2+3\times4!$
$1+2\times3!$	1^2+3^4	$1\times23+4!$	$12\times3+4\times5$	1×23	$12\times3!$	$1+2+34$	$1\times2^{3!}+\sqrt{4}$
$(1+2)!+3^4$	$12/3\times4$	$-1+2\times(3+4!)$	$12+3!+4!$	$-1+2\times(34+5)$	$1+23+\sqrt{4}$	$-1+2^{3!}$	$12\times3-4$
$(1+2\times3!)\times4$	$1+2\times(-3+4!)$	$-1+23\times4-5$	$12+3+\sqrt{4}$	$1\times2^{3!}-\sqrt{4}$	$1-2+34$	$12\times3!+4$	$(1+2)^3$

*The **magic sum** of magic square of order 8 is given by*

$$\boldsymbol{S_{8\times8}} := 1+(-2+3^4)\times5$$

*The blocks of order 4 are also **pandiagonal** magic squares with equal magic sums given by*

$$\boldsymbol{S_{4\times4}} := -1-2+3^4+5!$$

Exercise 7.2. *Using the **crazy representations** given in Appendix 12.2, write the magic square of order 8 given below in terms of numbers:*

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

$43+2\times1$	$4^3-(2+1)!$	$3!\times2-1$	$4!/3!\times21$	$3!^2-1$	$5+4^3-2+1$	21	$4!\times3+2\times1$
$(4+3)\times2\times1$	$(4!+3)\times(2+1)$	$(4+3)^2-1$	$4!+32-1$	$3+21$	$4!\times3-2+1$	$\sqrt{4}+3!^2\times1$	4^3+2-1
$5^{\sqrt{4}}+3\times21$	$-3!+21$	$\sqrt{4}\times(3!+21)$	$43-2\times1$	$4!\times3+(2+1)!$	$(3!-2)!+1$	$43+21$	$32-1$
$4!\times3-21$	$43+2-1$	$43\times2-1$	$-3+21$	4^3-2-1	$\sqrt{4}+32\times1$	$4!\times3+2+1$	$4+3+21$
$43+2+1$	$4!+32+1$	$3!\times2\times1$	$5\times4+3\times21$	$3!^2\times1$	$4+3\times21$	$43-21$	$4!\times3+2-1$
$3!\times2+1$	$-5+43\times2+1$	$4\times3!\times2-1$	$4!+32\times1$	$(3!-2)!-1$	$4\times(-3+21)$	$3!^2+1$	$4^3+2\times1$
$43\times2+1$	$4\times(3+2-1)$	$(4!+3)\times2-1$	$43-2+1$	$5-4\times(3-21)$	$\sqrt{4}+3+21$	3×21	32×1
$4\times(3!\times2+1)$	4^3-21	$43\times2\times1$	$\sqrt{4}-3!+21$	$4^3-2\times1$	$32+1$	$(-5+43)\times2\times1$	$3!+21$

*The **magic sum** of magic square of order 8 is given by*

$$S_{8\times8} := (4!-3!)\times(21+0!)$$

*The blocks of order 4 are also **pandiagonal** magic squares with equal magic sums given by*

$$S_{4\times4} := (\sqrt{5+4})!\times(32+1)$$

Exercise 7.3. *Using the **crazy representations** given in Appendix 12.3, write the magic square of order 8 given below in terms of numbers:*

$43+2\times1\times0!$	$4!+32+1+0!$	$3-2+10$	$(4+3)\times(2+10)$	$3!^2-1\times0!$	$4+3\times21+0!$	$21\times0!$	$(4!/3)^2+10$
$3!-2+10$	$3^{2\times(1+0!)}$	$3!\times(-2+10)$	$43+2+10$	$(2+1+0!)!$	$\sqrt{(3\times2+1)!+0!}$	$3!^2+1+0!$	$43+21+0!$
$4\times(32-10)$	$3+2+10$	$4+(3+2)\times10$	$43-2\times1\times0!$	$4!\times3+(2+1)!\times0!$	$3+21+0!$	$32\times(1+0!)$	$32-1\times0!$
$43-2+10$	$43+(21\times0)!$	$43\times2-1\times0!$	$3!+2+10$	$4^3-2-1\times0!$	$32+1+0!$	$4!\times3+2+1\times0!$	$3!+21+0!$
$3!^2+10$	$4!+32+1\times0!$	$2+10$	$4!/3!\times21-0!$	$3\times(2+10)$	$4+3\times21\times0!$	$21+0!$	$4!\times3+2-1\times0!$
$3!/2+10$	$(43-2)\times(1+0!)$	$4!+3+2\times10$	4^3+2-10	$3+2\times10$	$3!\times(2+10)$	$3!^2+1\times0!$	$3\times(21+0!)$
$43\times2+1\times0!$	$3\times2+10$	$(4!+3)\times2-1\times0!$	$32+10$	$-4+3^{2+1+0!}$	$3!+2\times10$	$3\times21\times0!$	$\sqrt{2^{10}}$
4^3-2-10	$32+10$	$43\times2\times1\times0!$	$-3+2\times10$	$3\times21-0!$	$32+1\times0!$	$43\times2-10$	$3!+21\times0!$

The **magic sum** of magic square of order 8 is given by

$$S_{8\times8} := (4!-3!)\times(21+0!)$$

The blocks of order 4 are also **pandiagonal** magic squares with equal magic sums given by

$$S_{4\times4} := -4\times3+210$$

8 Magic Square of Order 9

Example 8.1. *Let's consider a **pandiagonal** magic square of order 9 is given by*

 Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

		369	369	369	369	369	369	369	369	369
	22	71	30	27	64	32	20	69	34	369
369	35	21	67	28	23	72	33	25	65	369
369	66	31	26	68	36	19	70	29	24	369
369	40	8	75	45	1	77	38	6	79	369
369	80	39	4	73	41	9	78	43	2	369
369	3	76	44	5	81	37	7	74	42	369
369	58	53	12	63	46	14	56	51	16	369
369	17	57	49	10	59	54	15	61	47	369
369	48	13	62	50	18	55	52	11	60	369
	369	369	369	369	369	369	369	369	369	369

8.1 Examples

The examples below are based on the Example 8.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 8.2. *Based on **crazy representations** given in Appendix 12.1, the **pandiagonal** magic square of order 9 given in Example 8.1 is given by*

$-1+23$	$1-2+3\times 4!$	$(12+3)\times\sqrt{4}$	$(1+2)^3$	$1\times 2^{3!}$	$12\times 3-4$	$1+23-4$	$1+2\times 34$	$1^2\times 34$
1^2+34	$(1+2)\times(3+4)$	$-1+2\times 34$	$1+23+4$	1×23	$12\times 3!$	$1-2+34$	$1+(-2+3!)!$	$1+2^{3!}$
$1\times 2^{3!}+\sqrt{4}$	$-1-2+34$	$1+23+\sqrt{4}$	$1\times 2\times 34$	*36*	*19*	*70*	*29*	*24*
$12\times 3+4$	1×2^3	$1+2+3\times 4!$	$-1+23\times\sqrt{4}$	1	$-1+2\times(34+5)$	$12\times 3+\sqrt{4}$	$(1+2)!$	$-1\times 2+3^4$
$1-2+3^4$	$12+3+4!$	$12/3$	$1^2+3\times 4!$	$-1+2\times(-3+4!)$	$12-3$	$-1-2+3^4$	$1+2\times(-3+4!)$	1×2
$1+2$	$12\times 3!+4$	$(-1+23)\times\sqrt{4}$	$1\times 2+3$	$1^2\times 3^4$	$1+2+34$	$1+2\times 3$	$12\times 3!+\sqrt{4}$	$12+3!+4!$
$1\times 2\times(34-5)$	$-1+2\times(3+4!)$	12	$-1+2^{3!}$	$12+34$	$1\times 2\times(3+4)$	$12\times 3+4\times 5$	$(1+2)^3+4!$	$12/3\times 4$
$12+3+\sqrt{4}$	$-1+2\times(34-5)$	$1+2\times 3!\times 4$	$\sqrt{12\times 3}+4$	$-1+2^{3!}-4$	$1\times 2\times(3+4!)$	$12+3$	$1+2^{3!}-4$	$1\times 23+4!$
$(1+23)\times\sqrt{4}$	$1+2\times 3!$	$1\times 2^{3!}-\sqrt{4}$	$(1+(-2+3!)!)\times\sqrt{4}$	$12+3!$	$1+2\times(3+4!)$	$(1+2\times 3!)\times 4$	$-1+2\times 3!$	$(12+3)\times 4$

*The **magic sum** of magic square of order 9 is given by*

$$\boldsymbol{S_{9\times 9}} := 123\times\sqrt{4+5}$$

*The blocks of order 3 are **semi-magic** squares (sum of only rows and columns) with equal **semi-magic** sums.*

$$\boldsymbol{Sm_{3\times 3}} := 123$$

Example 8.3. *Based on **crazy representations** given in Appendix 12.2, the **pandiagonal** magic square of order 9 given in Example 8.1 is given by*

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

$43-21$	$4!\times 3-2+1$	$-\sqrt{4}+32\times 1$	$3!+21$	$43+21$	32×1	$4\times(3\times 2-1)$	$4!\times 3-2-1$	$\sqrt{4}+32\times 1$
$3!^2-1$	21	$4+3\times 21$	$4+3+21$	$(3!-2)!-1$	$4\times(-3+21)$	$32+1$	$(3!-2)!+1$	4^3+2-1
$4^3+2\times 1$	$32-1$	$\sqrt{4}+3+21$	$5+4^3-2+1$	$3!^2\times 1$	$4-3!+21$	$4!\times 3-2\times 1$	$\sqrt{4^3}+21$	$3+21$
$43-2-1$	3^2-1	$4!\times 3+2+1$	$43+2\times 1$	1	$5-4\times(3-21)$	$\sqrt{4}+3!^2\times 1$	$(2+1)!$	$5+4!\times 3+2\times 1$
$5\times 4\times(3+2-1)$	$4+3!^2-1$	$3+2-1$	$4!\times 3+2-1$	$43-2\times 1$	$3^2\times 1$	$4!\times 3+(2+1)!$	4^3-21	2×1
$2+1$	$(-5+43)\times 2\times 1$	$43+2-1$	$3\times 2-1$	$(4!+3)\times(2+1)$	$3!^2+1$	$3\times 2+1$	$4!\times 3+2\times 1$	$43-2+1$
$4^3-(2+1)!$	$(4!+3)\times 2-1$	$3!\times 2\times 1$	3×21	$43+2+1$	$(4+3)\times 2\times 1$	$4!+32\times 1$	$4!\times 3-21$	$4\times(3+2-1)$
$\sqrt{4}-3!+21$	$4!+32+1$	$(4+3)^2\times 1$	3^2+1	$-4+3\times 21$	$\sqrt{4}\times(3!+21)$	$-3!+21$	4^3-2-1	$4\times 3!\times 2-1$
$(4+3)^2-1$	$3!\times 2+1$	$4^3-2\times 1$	$(4+3)^2+1$	$-3+21$	$4!+32-1$	$4\times(3!\times 2+1)$	$3!\times 2-1$	$4\times(-3!+21)$

*The **magic sums** of magic square of order 9 is given by*

$$S_{9\times 9} := (5!-4)\times 3+21$$

*The blocks of order 3 are **semi-magic** squares (sum of only rows and columns) with equal **semi-magic** sums.*

$$Sm_{3\times 3} := 4!\times 3!-21$$

Example 8.4. *Based on **crazy representations** given in Appendix 12.3, the **pandiagonal** magic square of order 9 given in Example 8.1 is given by*

$21+0!$	$\sqrt{(3\times 2+1)!+0!}$	$32-1-0!$	$3!+21\times 0!$	$32\times(1+0!)$	$\sqrt{2^{10}}$	2×10	$4!\times 3-2-1\times 0!$	$32+1+0!$
$3!^2-1\times 0!$	$21\times 0!$	$4+3\times 21\times 0!$	$3!+21+0!$	$3+2\times 10$	$3!\times(2+10)$	$32+1\times 0!$	$3+21+0!$	$43+21+0!$
$3\times(21+0!)$	$32-1\times 0!$	$3!+2\times 10$	$4+3\times 21+0!$	$3\times(2+10)$	3^2+10	$4+3\times(21+0!)$	$-3+\sqrt{2^{10}}$	$(2+1+0!)!$
$(3!-2)\times 10$	$-2+10$	$4!\times 3+2+1\times 0!$	$43+2\times 1\times 0!$	$0!$	$-4+3^{2+1+0!}$	$3!^2+1+0!$	$(2+1)!\times 0!$	$4!\times 3+(2+1)!+0!$
$(3!+2)\times 10$	$(4+3)^2-10$	$2+1+0!$	$4!\times 3+2-1\times 0!$	$43-2\times 1\times 0!$	$3^2\times 1\times 0!$	$4!\times 3+(2+1)!\times 0!$	$43+21\times 0$	$1+0!$
$2+1\times 0!$	$43\times 2-10$	$43+(21\times 0)!$	$(2+1)!-0!$	$3^{2\times(1+0!)}$	$3!^2+1\times 0!$	$(2+1)!+0!$	$(4!/3)^2+10$	$32+10$
$4!+32+1+0!$	$(4!+3)\times 2-1\times 0!$	$2+10$	$3\times 21\times 0!$	$3!^2+10$	$3!-2+10$	4^3+2-10	$43-2+10$	$3\times 2+10$
$-3+2\times 10$	$4!+32+1\times 0!$	$(4+3)^2\times 1\times 0!$	10	$(4+3)^2+10$	$4+(3+2)\times 10$	$3+2+10$	$4^3-2-1\times 0!$	$4!+3+2\times 10$
$3!\times(-2+10)$	$3!/2+10$	$3\times 21-0!$	$(3+2)\times 10$	$3!+2+10$	$43+2+10$	4^3-2-10	$3-2+10$	$3\times 2\times 10$

*The **magic sums** of magic square of order 9 is given by*

$$S_{9\times 9} := (-\sqrt{4}+3!!)/2+10$$

*The blocks of order 3 are **semi-magic** squares (sum of only rows and columns) with equal **semi-magic** sums.*

$$Sm_{3\times 3} := 3+((2+1)!-0!)!$$

8.2 Exercises

Exercise 8.1. *Using the **crazy representations** given in Appendix 12.1, write the magic square of order 9 given below in terms of numbers:*

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

$1^2 \times 34$	$(-1+23) \times 4$	$1+2 \times (-3+4!)$	$12+3+4!$	$1^2 \times 3^4$	$-1+23 \times \sqrt{4}$	$12 \times 3-4$	$-1+23 \times 4-5$	$1 \times 23+4!$
$(1+23) \times \sqrt{4}$	$1-2+34$	$12 \times (3+4)$	$-1+2 \times (-3+4!)$	1^2+34	$1+2^{3!}+4!$	$12+34$	$1+2+34$	1^2+3^4
$1 \times 2+3^4$	$(-1+23) \times \sqrt{4}$	$12 \times 3+\sqrt{4}$	$1+2 \times (-3+45)$	$1+2 \times 3! \times 4$	$-1-2+34$	$(1+2)!+3^4$	$12+3!+4!$	12×3
$1 \times 2 \times (3+4!)$	$12+3!$	$12+3^4$	$-1+2^{3!}-4$	$-1+2 \times 3!$	$-1+(-2+3!) \times 4!$	$(1+2 \times 3!) \times 4$	$12/3 \times 4$	$1+(-2+3!) \times 4!$
$12+3^4+5$	$-1+2 \times (3+4!)$	$1 \times 2 \times (3+4)$	$-1+23 \times 4$	$1+2 \times (3+4!)$	$1 \times 23-4$	$(1+23) \times 4$	$-1+2 \times (34-5)$	12
$1+2 \times 3!$	$-1 \times 2+3 \times \sqrt{4^5}$	$1 \times 2 \times (34-5)$	$12+3$	$1+2+3 \times \sqrt{4^5}$	$(1+2)^3+4!$	$12+3+\sqrt{4}$	$1 \times 23 \times 4$	$12 \times 3+4 \times 5$
$12 \times 3!+\sqrt{4}$	$1 \times 2 \times 34$	1×23	$-1 \times 2+3^4$	$1+2^{3!}-4$	$1+(-2+3!)!$	$12 \times 3!$	$1 \times 2^{3!}+\sqrt{4}$	$1 \times 2+3+4!$
$1+23+4$	$1^2+3 \times 4!$	$1 \times 2^{3!}$	$(1+2) \times (3+4)$	$1+2+3 \times 4!$	$1+2 \times 34$	$1+23+\sqrt{4}$	$-1+2 \times (34+5)$	$1 \times 2^{3!}-\sqrt{4}$
$-1+2^{3!}$	$1+23$	$-1-2+3^4$	$1+2^{3!}$	$1 \times 2+3+4!$	$1-2+3 \times 4!$	$-1+2 \times 34$	$-1+23$	$12 \times 3!+4$

*The **magic sums** of magic square of order 9 is given by*

$$S_{9\times 9} := (123-4!) \times 5$$

*The blocks of order 3 are **semi-magic** squares (sum of only rows and columns) with equal **semi-magic** sums.*

$$Sm_{3\times 3} := (1-2+34) \times 5$$

Exercise 8.2. *Using the **crazy representations** given in Appendix 12.2, write the magic square of order 9 given below in terms of numbers:*

$\sqrt{4}+32 \times 1$	$5^{\sqrt{4}}+3 \times 21$	4^3-21	$4+3!^2-1$	$(4!+3) \times (2+1)$	$43+2 \times 1$	32×1	$43 \times 2 \times 1$	$4 \times 3! \times 2-1$
$(4+3)^2-1$	$32+1$	$4!/3! \times 21$	$43-2 \times 1$	$3!^2-1$	$54+3!^2-1$	$43+2+1$	$3!^2+1$	$-5+43 \times 2+1$
$5 \times 4+3 \times 21$	$43+2-1$	$\sqrt{4}+3!^2 \times 1$	$43 \times 2-1$	$(4+3)^2 \times 1$	$32-1$	$43 \times 2+1$	$43-2+1$	$3!^2 \times 1$
$\sqrt{4} \times (3!+21)$	$-3+21$	$4! \times 3+21$	$-4+3 \times 21$	$3! \times 2-1$	$4 \times (3!-2)!-1$	$4 \times (3! \times 2+1)$	$4 \times (3+2-1)$	$4 \times (3!-2)!+1$
$5+4! \times 3+21$	$(4!+3) \times 2-1$	$(4+3) \times 2 \times 1$	$5+43 \times 2 \times 1$	$4!+32-1$	$4-3!+21$	$4 \times (3+21)$	$4!+32+1$	$3! \times 2 \times 1$
$3! \times 2+1$	$5 \times (4!-3-2)-1$	$4^3-(2+1)!$	$-3!+21$	$5 \times 4 \times (3+2)-1$	$4! \times 3-21$	$\sqrt{4}-3!+21$	$4 \times ((3!-2)!-1)$	$4!+32 \times 1$
$4! \times 3+2 \times 1$	$5+4^3-2+1$	$(3!-2)!-1$	$5+4! \times 3+2 \times 1$	4^3-2-1	$(3!-2)!+1$	$4 \times (-3+21)$	$4^3+2 \times 1$	$3!+21$
$4+3+21$	$4! \times 3+2-1$	$43+21$	21	$4! \times 3+2+1$	$4! \times 3-2-1$	$\sqrt{4}+3+21$	$5-4 \times (3-21)$	$4^3-2 \times 1$
3×21	$3+21$	$4! \times 3+(2+1)!$	4^3+2-1	$\sqrt{4^3}+21$	$4! \times 3-2+1$	$4+3 \times 21$	$43-21$	$(-5+43) \times 2 \times 1$

*The **magic sums** of magic square of order 9 is given by*

$$S_{9\times 9} := (5!+4) \times (3!-2)-1$$

*The blocks of order 3 are **semi-magic** squares (sum of only rows and columns) with equal **semi-magic** sums.*

$$Sm_{3\times 3} := 4! \times 3!+21$$

Exercise 8.3. *Using the **crazy representations** given in Appendix 12.3, write the magic square of order 9 given below in terms of numbers:*

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

$32+1+0!$	$4\times(32-10)$	$43+21\times 0$	$(4+3)^2-10$	$3^{2\times(1+0!)}$	$43+2\times 1\times 0!$	$\sqrt{2^{10}}$	$43\times 2\times 1\times 0!$	$4!+3+2\times 10$
$3!\times(-2+10)$	$32+1\times 0!$	$(4+3)\times(2+10)$	$43-2\times 1\times 0!$	$3!^2-1\times 0!$	$(4!+3!)\times(2+1)-0!$	$3!^2+10$	$3!^2+1\times 0!$	$(43-2)\times(1+0!)$
$4!/3!\times 21-0!$	$43+(21\times 0)!$	$3!^2+1+0!$	$43\times 2-1\times 0!$	$(4+3)^2\times 1\times 0!$	$32-1\times 0!$	$43\times 2+1\times 0!$	$32+10$	$3\times(2+10)$
$4+(3+2)\times 10$	$3!+2+10$	$4!\times 3+21\times 0!$	$(4+3)^2+10$	$3-2+10$	$4\times(3+21)-0!$	4^3-2-10	$3\times 2+10$	$4\times(3+21)+0!$
$(4+3)^2\times(1+0!)$	$(4!+3)\times 2-1\times 0!$	$3!-2+10$	$(4!+3!)\times(2+1)+0!$	$43+2+10$	3^2+10	$3\times\sqrt{2^{10}}$	$4!+32+1\times 0!$	$2+10$
$3!/2+10$	$4+3^2\times 10$	$4!+32+1+0!$	$3+2+10$	$(4+3!)^2-1\times 0!$	$43-2+10$	$-3+2\times 10$	$4\times(3+2\times 10)$	4^3+2-10
$(4!/3)^2+10$	$4+3\times 21+0!$	$3+2\times 10$	$4!\times 3+(2+1)!+0!$	$4^3-2-1\times 0!$	$3+21+0!$	$3!\times(2+10)$	$3\times(21+0!)$	$3!+21\times 0!$
$3!+21+0!$	$4!\times 3+2-1\times 0!$	$32\times(1+0!)$	$21\times 0!$	$4!\times 3+2+1\times 0!$	$4!\times 3-2-1\times 0!$	$3!+2\times 10$	$-4+3^{2+1+0!}$	$3\times 21-0!$
$3\times 21\times 0!$	$(2+1+0!)!$	$4!\times 3+(2+1)!\times 0!$	$43+21+0!$	$-3+\sqrt{2^{10}}$	$\sqrt{(3\times 2+1)!+0!}$	$4+3\times 21\times 0!$	$21+0!$	$43\times 2-10$

*The **magic sums** of magic square of order 9 is given by*

$$S_{9\times 9}:=(5!-4!+3)\times((2+1)!-0!)$$

*The blocks of order 3 are **semi-magic** squares (sum of only rows and columns) with equal **semi-magic** sums.*

$$Sm_{3\times 3}:=4!\times 3!+21\times 0!$$

9 Magic Squares of Order 10

Example 9.1. *Let's consider a magic square of order 10 is given by*

										505
1	80	65	97	39	22	48	86	53	14	505
98	12	9	66	90	74	55	33	41	27	505
47	81	23	79	16	35	94	60	62	8	505
70	57	88	34	2	91	29	15	76	43	505
84	99	52	11	45	68	73	7	30	36	505
13	38	44	10	77	56	82	21	95	69	505
75	46	40	83	28	19	67	92	4	51	505
59	24	96	42	61	3	20	78	37	85	505
26	5	17	58	93	50	31	64	89	72	505
32	63	71	25	54	87	6	49	18	100	505
505	505	505	505	505	505	505	505	505	505	505

9.1 Examples

The examples below are based on the Example 9.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 9.2. *Based on **crazy representations** given in Appendix 12.1, the magic square of order 10 given in Example 9.1 is given by*

1	$1-2+3^4$	$1+2^{3!}$	$1+(-2+3!)\times 4!$	$12+3+4!$	$-1+23$	$(1+23)\times\sqrt{4}$	$-1+23\times 4-5$	$-1+2\times(3+4!)$	$1\times 2\times(3+4)$
$12+3^4+5$	12	$12-3$	$1\times 2^{3!}+\sqrt{4}$	$(1+2)\times(3!+4!)$	$12\times 3!+\sqrt{4}$	$1+2\times(3+4!)$	$1-2+34$	$-1+2\times(-3+4!)$	$(1+2)^3$
$1\times 23+4!$	$1^2\times 3^4$	1×23	$-1\times 2+3^4$	$12/3\times 4$	1^2+34	$-1\times 2+3\times\sqrt{4^5}$	$(12+3)\times 4$	$1\times 2^{3!}-\sqrt{4}$	1×2^3
$12\times 3!-\sqrt{4}$	$-1+2\times(34-5)$	$(-1+23)\times 4$	$1^2\times 34$	1×2	$-1+23\times 4$	$1\times 2+3+4!$	$12+3$	*76*	$1+2\times(-3+4!)$
$12\times(3+4)$	$1+2+3\times\sqrt{4^5}$	$(1+2\times 3!)\times 4$	$-1+2\times 3!$	$-1+23\times\sqrt{4}$	$1\times 2\times 34$	$1^2+3\times 4!$	$1+2\times 3$	$(12+3)\times\sqrt{4}$	12×3
$1+2\times 3!$	$12\times 3+\sqrt{4}$	$(-1+23)\times\sqrt{4}$	$\sqrt{12\times 3}+4$	$-1+2\times(34+5)$	$12\times 3+4\times 5$	1^2+3^4	$(1+2)\times(3+4)$	$-1+(-2+3!)\times 4!$	$1+2\times 34$
$1+2+3\times 4!$	$12+34$	$12\times 3+4$	$1\times 2+3^4$	$1+23+4$	$1\times 23-4$	$-1+2\times 34$	$1\times 23\times 4$	$12/3$	$(1+2)^3+4!$
$-1+2^{3!}-4$	$1+23$	$(1+23)\times 4$	$12+3!+4!$	$1+2^{3!}-4$	$1+2$	$1+23-4$	$-1-2+3^4$	$1+2+34$	$1+2\times(-3+45)$
$1+23+\sqrt{4}$	$1\times 2+3$	$12+3+\sqrt{4}$	$1\times 2\times(34-5)$	$12+3^4$	$(1+(-2+3!)!)\times\sqrt{4}$	$-1-2+34$	$1\times 2^{3!}$	$1+2^{3!}+4!$	$12\times 3!$
$12\times 3-4$	$-1+2^{3!}$	$1-2+3\times 4!$	*25*	*54*	*87*	$(1+2)!$	$1+(-2+3!)!$	$12+3!$	$(1+(-2+3!)!)\times 4$

In this case the **magic sum** of magic square of order 10 is given by

$$\boldsymbol{S_{10\times 10}} := (-1+2\times 3)^4-5!$$

Example 9.3. *Based on* ***crazy representations*** *given in Appendix 12.2, the magic square of order 10 given in Example 9.1 is given by*

1	$5\times 4\times(3+2-1)$	4^3+2-1	$4\times(3!-2)!+1$	$4+3!^2-1$	$43-21$	$(4+3)^2-1$	$43\times 2\times 1$	$(4!+3)\times 2-1$	$(4+3)\times 2\times 1$
$5+4!\times 3+21$	$3!\times 2\times 1$	$3^2\times 1$	$4^3+2\times 1$	$(4!+3!)\times(2+1)$	$4!\times 3+2\times 1$	$4!+32-1$	$32+1$	$43-2\times 1$	$3!+21$
$4\times 3!\times 2-1$	$(4!+3)\times(2+1)$	$(3!-2)!-1$	$5+4!\times 3+2\times 1$	$4\times(3+2-1)$	$3!^2-1$	$5\times(4!-3-2)-1$	$4\times(-3!+21)$	$4^3-2\times 1$	3^2-1
$4!\times 3-2\times 1$	$4!+32+1$	$5^{\sqrt{4}}+3\times 21$	$\sqrt{4}+32\times 1$	2×1	$5+43\times 2\times 1$	$\sqrt{4^3}+21$	$-3!+21$	$(-5+43)\times 2\times 1$	4^3-21
$4!/3!\times 21$	$5\times 4\times(3+2)-1$	$4\times(3!\times 2+1)$	$3!\times 2-1$	$43+2\times 1$	$5+4^3-2+1$	$4!\times 3+2-1$	$3\times 2+1$	$-\sqrt{4}+32\times 1$	$3!^2\times 1$
$3!\times 2+1$	$\sqrt{4}+3!^2\times 1$	$43+2-1$	3^2+1	$5-4\times(3-21)$	$4!+32\times 1$	$-5+43\times 2+1$	21	$4\times(3!-2)!-1$	$4!\times 3-2-1$
$4!\times 3+2+1$	$43+2+1$	$43-2-1$	$5\times 4+3\times 21$	$4+3+21$	$4-3!+21$	$4+3\times 21$	$4\times((3!-2)!-1)$	$3+2-1$	$4!\times 3-21$
$-4+3\times 21$	$3+21$	$4\times(3+21)$	$43-2+1$	4^3-2-1	$2+1$	$4\times(3\times 2-1)$	$4!\times 3+(2+1)!$	$3!^2+1$	$43\times 2-1$
$\sqrt{4}+3+21$	$3\times 2-1$	$(\sqrt{4}-3!)+21$	$4^3-(2+1)!$	$4!\times 3+21$	$(4+3)^2+1$	$32-1$	$43+21$	$54+3!^2-1$	$4\times(-3+21)$
32×1	3×21	$4!\times 3-2+1$	$(3!-2)!+1$	$\sqrt{4}\times(3!+21)$	$43\times 2+1$	$(2+1)!$	$(4+3)^2\times 1$	$-3+21$	$(4+3!)^2\times 1$

In this case the **magic sum** of magic square of order 10 is given by

$$\boldsymbol{S_{10\times 10}} := 5^4-(3+2)!\times 1$$

Example 9.4. *Based on* ***crazy representations*** *given in Appendix 12.3, the magic square of order 10 given in Example 9.1 is given by*

$0!$	$(3!+2)\times 10$	$43+21+0!$	$4\times(3+21)+0!$	$(4+3)^2-10$	$21+0!$	$3!\times(-2+10)$	$43\times 2\times 1\times 0!$	$(4!+3)\times 2-1\times 0!$	$3!-2+10$
$(4+3)^2\times(1+0!)$	$2+10$	$3^2\times 1\times 0!$	$3\times(21+0!)$	$3^2\times 10$	$(4!/3)^2+10$	$43+2+10$	$32+1\times 0!$	$43-2\times 1\times 0!$	$3!+21\times 0!$
$4!+3+2\times 10$	$3^{2\times(1+0!)}$	$3+2\times 10$	$4!\times 3+(2+1)!+0!$	$3\times 2+10$	$3!^2-1\times 0!$	$4+3^2\times 10$	$3\times 2\times 10$	$3\times 21-0!$	$-2+10$
$4+3\times(21+0!)$	$4!+32+1\times 0!$	$4\times(32-10)$	$32+1+0!$	$1+0!$	$(4!+3!)\times(2+1)+0!$	$-3+\sqrt{2^{10}}$	$3+2+10$	$43\times 2-10$	$43+21\times 0$
$(4+3)\times(2+10)$	$(4+3!)^2-1\times 0!$	4^3-2-10	$3-2+10$	$43+2\times 1\times 0!$	$4+3\times 21+0!$	$4!\times 3+2-1\times 0!$	$(2+1)!+0!$	$32-1-0!$	$3\times(2+10)$
$3!/2+10$	$3!^2+1+0!$	$43+(21\times 0)!$	10	$-4+3^{2+1+0!}$	4^3+2-10	$(43-2)\times(1+0!)$	$21\times 0!$	$4\times(3+21)-0!$	$4!\times 3-2-1\times 0!$
$4!\times 3+2+1\times 0!$	$3!^2+10$	$(3!-2)\times 10$	$4!/3!\times 21-0!$	$3!+21+0!$	3^2+10	$4+3\times 21\times 0!$	$4\times(3+2\times 10)$	$2+1+0!$	$43-2+10$
$(4+3)^2+10$	$(2+1+0!)!$	$3\times\sqrt{2^{10}}$	$32+10$	$4^3-2-1\times 0!$	$2+1\times 0!$	2×10	$4!\times 3+(2+1)!\times 0!$	$3!^2+1\times 0!$	$43\times 2-1\times 0!$
$3!+2\times 10$	$(2+1)!-0!$	$-3+2\times 10$	$4!+32+1+0!$	$4!\times 3+21\times 0!$	$(3+2)\times 10$	$32-1\times 0!$	$32\times(1+0!)$	$(4!+3!)\times(2+1)-0!$	$3!\times(2+10)$
$\sqrt{2^{10}}$	$3\times 21\times 0!$	$\sqrt{(3\times 2+1)!+0!}$	$3+21+0!$	$4+(3+2)\times 10$	$43\times 2+1\times 0!$	$(2+1)!\times 0!$	$(4+3)^2\times 1\times 0!$	$3!+2+10$	$(4+3\times 2)\times 10$

In this case the **magic sum** of magic square of order 10 is given by

$$\boldsymbol{S_{10\times 10}} := (4!/3!)! \times 21 + 0!$$

10 Block-Bordered Magic Squares

Below are two different ways of writing **block-bordered** magic square of order 10 based on magic squares of order 8 given in Examples 7.1.

Example 10.1. *Let's consider a **block-bordered** magic square of order 10 with inner part as **pandiagonal** magic squares of order 8 is given by*

91	86	16	84	18	14	4	98	2	92
13	47	58	19	78	39	66	27	70	88
89	22	75	50	55	30	67	42	63	12
11	82	23	54	43	74	31	62	35	90
96	51	46	79	26	59	38	71	34	5
1	48	57	20	77	40	65	28	69	100
93	21	76	49	56	29	68	41	64	8
7	81	24	53	44	73	32	61	36	94
95	52	45	80	25	60	37	72	33	6
9	15	85	17	83	87	97	3	99	10

In this case, the 4 blocks of order 4 are **pandiagonal** magic squares of order 4 with magic sum $S_{4\times 4} := 202$. The magic square of order 8 is with magic sums $S_{8\times 8} := 404$. The magic sum of order 10 is $S_{10\times 10} := 505$.

10.1 Examples

The examples below are based on the Example 2.1. These are written in three different ways. One in increasing order of crazy representations starting with 1. The other two are in decreasing orders ending in 1 and 0.

Example 10.2. *Based on **crazy representations** given in Appendix 12.1, the **block-bordered** magic square of order 10 given in Example 9.1 with inner part as **pandiagonal** magic square of order 8 with blocks of order 4 is given by*

$-1+23\times 4$	$-1+23\times 4-5$	$12/3\times 4$	$12\times(3+4)$	$12+3!$	$1\times 2\times(3+4)$	$12/3$	$12+3^4+5$	1×2	$1\times 23\times 4$
$1+2\times 3!$	$1\times 23+4!$	$1\times 2\times(34-5)$	$1\times 23-4$	$-1-2+3^4$	$12+3+4!$	$1\times 2^{3!}+\sqrt{4}$	$(1+2)^3$	$12\times 3!-\sqrt{4}$	$(-1+23)\times 4$
$1+2^{3!}+4!$	$-1+23$	$1+2+3\times 4!$	$(1+(-2+3!)!)\times\sqrt{4}$	$1+2\times(3+4!)$	$(12+3)\times\sqrt{4}$	$-1+2\times 34$	$12+3!+4!$	$-1+2^{3!}$	12
$-1+2\times 3!$	1^2+3^4	1×23	$1\times 2\times(3+4!)$	$1+2\times(-3+4!)$	$12\times 3!+\sqrt{4}$	$-1-2+34$	$1\times 2^{3!}-\sqrt{4}$	1^2+34	$(1+2)\times(3!+4!)$
$(1+23)\times 4$	$(1+2)^3+4!$	$12+34$	$-1\times 2+3^4$	$1+23+\sqrt{4}$	$-1+2^{3!}-4$	$12\times 3+\sqrt{4}$	$1-2+3\times 4!$	$1^2\times 34$	$1\times 2+3$
1	$(1+23)\times\sqrt{4}$	$-1+2\times(34-5)$	$1+23-4$	$-1+2\times(34+5)$	$12\times 3+4$	$1+2^{3!}$	$1+23+4$	$1+2\times 34$	$(1+(-2+3!)!)\times 4$
$12+3^4$	$(1+2)\times(3+4)$	$12\times 3!+4$	$1+2\times 3!\times 4$	$12\times 3+4\times 5$	$1\times 2+3+4!$	$1\times 2\times 34$	$-1+2\times(-3+4!)$	$1\times 2^{3!}$	1×2^3
$1+2\times 3$	$1^2\times 3^4$	$1+23$	$-1+2\times(3+4!)$	$(-1+23)\times\sqrt{4}$	$1^2+3\times 4!$	$12\times 3-4$	$1+2^{3!}-4$	12×3	$-1\times 2+3\times\sqrt{4^5}$
$-1+(-2+3!)\times 4!$	$(1+2\times 3!)\times 4$	$-1+23\times\sqrt{4}$	$1-2+3^4$	$1+(-2+3!)!$	$(12+3)\times 4$	$1+2+34$	$12\times 3!$	$1-2+34$	$(1+2)!$
$12-3$	$12+3$	$1+2\times(-3+45)$	$12+3+\sqrt{4}$	$1\times 2+3^4$	$(1+2)!+3^4$	$1+(-2+3!)\times 4!$	$1+2$	$1+2+3\times\sqrt{4^5}$	$\sqrt{12\times 3}+4$

In this case the 4 blocks of order 4 are **pandiagonal** magic squares of order 4. Below are magic sums:

$$\mathbf{S_{4\times4}} = -1+2+3^4+5!$$

$$\mathbf{S_{8\times8}} = 1-2+3^4\times5$$

$$\mathbf{S_{10\times10}} = (-1+2\times3)^4-5!$$

Example 10.3. *Based on **crazy representations** given in Appendix 12.2, the **block-bordered** magic square of order 10 given in Example 9.1 with inner part as **pandiagonal** magic square of order 8 with blocks of order 4 is given by*

$5+43\times2\times1$	$43\times2\times1$	$4\times(3+2-1)$	$4!/3!\times21$	$-3+21$	$(4+3)\times2\times1$	$3+2-1$	$5+4!\times3+21$	2×1	$4\times((3!-2)!-1)$
$3!\times2+1$	$4\times3!\times2-1$	$4^3-(2+1)!$	$4-3!+21$	$4!\times3+(2+1)!$	$4+3!^2-1$	$4^3+2\times1$	$3!+21$	$4!\times3-2\times1$	$5^{\sqrt{4}}+3\times21$
$54+3!^2-1$	$43-21$	$4!\times3+2+1$	$(4+3)^2+1$	$4!+32-1$	$-\sqrt{4}+32\times1$	$4+3\times21$	$43-2+1$	3×21	$3!\times2\times1$
$3!\times2-1$	$-5+43\times2+1$	$(3!-2)!-1$	$\sqrt{4}\times(3!+21)$	*43*	*74*	*31*	*62*	$3!^2-1$	$(4!+3!)\times(2+1)$
$4\times(3+21)$	$4!\times3-21$	$43+2+1$	$5+4!\times3+2\times1$	$\sqrt{4}+3+21$	$-4+3\times21$	$\sqrt{4}+3!^2\times1$	$4!\times3-2+1$	$\sqrt{4}+32\times1$	$3\times2-1$
1	$(4+3)^2-1$	$4!+32+1$	$4\times(3\times2-1)$	$5-4\times(3-21)$	$43-2-1$	4^3+2-1	$4+3+21$	$4!\times3-2-1$	$(4+3!)^2\times1$
$4!\times3+21$	21	$(-5+43)\times2\times1$	$(4+3)^2\times1$	$4!+32\times1$	$\sqrt{4^3}+21$	$5+4^3-2+1$	$43-2\times1$	$43+21$	3^2-1
$3\times2+1$	$(4!+3)\times(2+1)$	$3+21$	$(4!+3)\times2-1$	$43+2-1$	$4!\times3+2-1$	32×1	4^3-2-1	$3!^2\times1$	$5\times(4!-3-2)-1$
$4\times(3!-2)!-1$	$4\times(3!\times2+1)$	$43+2\times1$	$5\times4\times(3+2-1)$	$(3!-2)!+1$	$4\times(-3!+21)$	$3!^2+1$	$4\times(-3+21)$	$32+1$	$(2+1)!$
$3^2\times1$	$-3!+21$	$43\times2-1$	$(\sqrt{4}-3!)+21$	$5\times4+3\times21$	$43\times2+1$	$4\times(3!-2)!+1$	$2+1$	$5\times4\times(3+2)-1$	3^2+1

In this case the 4 blocks of order 4 are **pandiagonal** magic squares of order 4. Below are magic sums:

$$\mathbf{S_{4\times4}} = -6+5!\times\sqrt{4}-32\times1$$

$$\mathbf{S_{8\times8}} = 6!+5!/4!-321$$

$$\mathbf{S_{10\times10}} = 5^4-(3+2)!\times1$$

Example 10.4. *Based on **crazy representations** given in Appendix 12.3, the **block-bordered** magic square of order 10 given in Example 9.1 with inner part as **pandiagonal** magic square of order 8 with blocks of order 4 is given by*

$(4!+3!)\times(2+1)+0!$	$43\times2\times1\times0!$	$3\times2+10$	$(4+3)\times(2+10)$	$3!+2+10$	$3!-2+10$	$2+1+0!$	$(4+3)^2\times(1+0!)$	$1+0!$	$4\times(3+2\times10)$
$3!/2+10$	$4!+3+2\times10$	$4!+32+1+0!$	3^2+10	$4!\times3+(2+1)!\times0!$	$(4+3)^2-10$	$3\times(21+0!)$	$3!+21\times0!$	$4+3\times(21+0!)$	$4\times(32-10)$
$(4!+3!)\times(2+1)-0!$	$21+0!$	$4!\times3+2+1\times0!$	$(3+2)\times10$	$43+2+10$	$32-1-0!$	$4+3\times21\times0!$	$32+10$	$3\times21\times0!$	$2+10$
$3-2+10$	$(43-2)\times(1+0!)$	$3+2\times10$	$4+(3+2)\times10$	$43+21\times0$	$(4!/3)^2+10$	$32-1\times0!$	$3\times21-0!$	$3!^2-1\times0!$	$3^2\times10$
$3\times\sqrt{2^{10}}$	$43-2+10$	$3!^2+10$	$4!\times3+(2+1)!+0!$	$3!+2\times10$	$(4+3)^2+10$	$3!^2+1+0!$	$\sqrt{(3\times2+1)!+0!}$	$32+1+0!$	$(2+1)!-0!$
$0!$	$3!\times(-2+10)$	$4!+32+1\times0!$	2×10	$-4+3^{2+1+0!}$	$(3!-2)\times10$	$43+21+0!$	$3!+21+0!$	$4!\times3-2-1\times0!$	$(4+3\times2)\times10$
$4!\times3+21\times0!$	$21\times0!$	$43\times2-10$	$(4+3)^2\times1\times0!$	4^3+2-10	$-3+\sqrt{2^{10}}$	$4+3\times21+0!$	$43-2\times1\times0!$	$32\times(1+0!)$	$-2+10$
$(2+1)!+0!$	$3^{2\times(1+0!)}$	$(2+1+0!)!$	$(4!+3)\times2-1\times0!$	$43+(21\times0)!$	$4!\times3+2-1\times0!$	$\sqrt{2^{10}}$	$4^3-2-1\times0!$	$3\times(2+10)$	$4+3^2\times10$
$4\times(3+21)-0!$	4^3-2-10	$43+2\times1\times0!$	$(3!+2)\times10$	$3+21+0!$	$3\times2\times10$	$3!^2+1\times0!$	$3!\times(2+10)$	$32+1\times0!$	$(2+1)!\times0!$
$3^2\times1\times0!$	$3+2+10$	$43\times2-1\times0!$	$-3+2\times10$	$4!/3!\times21-0!$	$43\times2+1\times0!$	$4\times(3+21)+0!$	$2+1\times0!$	$(4+3!)^2-1\times0!$	*10*

In this case the 4 blocks of order 4 are **pandiagonal** magic squares of order 4. Below are magic sums:

$$\mathbf{S_{4\times4}} = -4!/3+210$$

$$\mathbf{S_{8\times8}} = 54+3!!/2-10$$

$$\mathbf{S_{10\times10}} = (4!/3!)!\times21+0!$$

11 Author's Contribution to Magic Squares and Recreation of Numbers

For author's contribution to **magic squares** and **recreation of numbers** please see the links below:

- **Inder J. Taneja**, Magic Squares, *https://inderjtaneja.com/2019/06/27/publications-magic-squares/*
- **Inder J. Taneja**, Recreation of Numbers, *https://inderjtaneja.com/2019/06/27/publications-recreation-of-numbers/*

References

- **Crazy Representations**

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- **Block-Wise and Block-Bordered Magic Squares**

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- **Creative Magic Squares**

[15] Inder J. Taneja, Creative Magic Squares: Single Digit Representations, **Zenodo**, March 25, 2021, pp. 1-165, *http://doi.org/10.5281/zenodo.4637121*.

[16] Inder J. Taneja, Creative Magic Squares: Single Letter Representations, **Zenodo**, March 25, 2021, pp. 1-41, *http://doi.org/10.5281/zenodo.4637125*.

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12 Appendix: Crazy Representations

Within the magic squares we have used total 1 to 100 numbers for the magic squares of orders 3 to 10. The magic sums vary according to each magic square. Any way the maximum number used is 505. Below are representations of numbers from 1 to 1000 in terms **crazy representations**. These representations are of three types. One in increasing order of digits starting from 1. The second in decreasing order of digits ending in 1. The third is also in decreasing orders ending in 0. In each case the minimum possible digits are used. More details can be seen in author's work [6].

12.1 Crazy Representations: Increasing Order Beginning With 1

$\mathbf{1} := 1$
$\mathbf{2} := 1 \times 2$
$\mathbf{3} := 1 + 2$
$\mathbf{4} := 12/3$
$\mathbf{5} := 1 \times 2 + 3$
$\mathbf{6} := (1 + 2)!$
$\mathbf{7} := 1 + 2 \times 3$
$\mathbf{8} := 1 \times 2^3$
$\mathbf{9} := 12 - 3$
$\mathbf{10} := \sqrt{12 \times 3} + 4$
$\mathbf{11} := -1 + 2 \times 3!$
$\mathbf{12} := 12$
$\mathbf{13} := 1 + 2 \times 3!$
$\mathbf{14} := 1 \times 2 \times (3 + 4)$
$\mathbf{15} := 12 + 3$
$\mathbf{16} := 12/3 \times 4$
$\mathbf{17} := 12 + 3 + \sqrt{4}$
$\mathbf{18} := 12 + 3!$
$\mathbf{19} := 1 \times 23 - 4$
$\mathbf{20} := 1 + 23 - 4$
$\mathbf{21} := (1 + 2) \times (3 + 4)$
$\mathbf{22} := -1 + 23$
$\mathbf{23} := 1 \times 23$
$\mathbf{24} := 1 + 23$
$\mathbf{25} := 1 + (-2 + 3!)!$
$\mathbf{26} := 1 + 23 + \sqrt{4}$
$\mathbf{27} := (1 + 2)^3$

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

$\mathbf{28} := 1+23+4$

$\mathbf{29} := 1\times 2+3+4!$

$\mathbf{30} := (12+3)\times\sqrt{4}$

$\mathbf{31} := -1-2+34$

$\mathbf{32} := 12\times 3-4$

$\mathbf{33} := 1-2+34$

$\mathbf{34} := 1^2\times 34$

$\mathbf{35} := 1^2+34$

$\mathbf{36} := 12\times 3$

$\mathbf{37} := 1+2+34$

$\mathbf{38} := 12\times 3+\sqrt{4}$

$\mathbf{39} := 12+3+4!$

$\mathbf{40} := 12\times 3+4$

$\mathbf{41} := -1+2\times(-3+4!)$

$\mathbf{42} := 12+3!+4!$

$\mathbf{43} := 1+2\times(-3+4!)$

$\mathbf{44} := (-1+23)\times\sqrt{4}$

$\mathbf{45} := -1+23\times\sqrt{4}$

$\mathbf{46} := 12+34$

$\mathbf{47} := 1\times 23+4!$

$\mathbf{48} := (1+23)\times\sqrt{4}$

$\mathbf{49} := 1+2\times 3!\times 4$

$\mathbf{50} := (1+(-2+3!)!)\times\sqrt{4}$

$\mathbf{51} := (1+2)^3+4!$

$\mathbf{52} := (1+2\times 3!)\times 4$

$\mathbf{53} := -1+2\times(3+4!)$

$\mathbf{54} := 1\times 2\times(3+4!)$

$\mathbf{55} := 1+2\times(3+4!)$

$\mathbf{56} := 12\times 3+4\times 5$

$\mathbf{57} := -1+2\times(34-5)$

$\mathbf{58} := 1\times 2\times(34-5)$

$\mathbf{59} := -1+2^{3!}-4$

$\mathbf{60} := (12+3)\times 4$

$\mathbf{61} := 1+2^{3!}-4$

$\mathbf{62} := 1\times 2^{3!}-\sqrt{4}$

$\mathbf{63} := -1+2^{3!}$

$\mathbf{64} := 1\times 2^{3!}$

$\mathbf{65} := 1+2^{3!}$

$\mathbf{66} := 1\times 2^{3!}+\sqrt{4}$

$\mathbf{67} := -1+2\times 34$

$\mathbf{68} := 1\times 2\times 34$

$\mathbf{69} := 1+2\times 34$

$\mathbf{70} := 12\times 3!-\sqrt{4}$

$\mathbf{71} := 1-2+3\times 4!$

$\mathbf{72} := 12\times 3!$

$\mathbf{73} := 1^2+3\times 4!$

$\mathbf{74} := 12\times 3!+\sqrt{4}$

$\mathbf{75} := 1+2+3\times 4!$

$\mathbf{76} := 12\times 3!+4$

$\mathbf{77} := -1+2\times(34+5)$

$\mathbf{78} := -1-2+3^4$

$\mathbf{79} := -1\times 2+3^4$

$\mathbf{80} := 1-2+3^4$

$\mathbf{81} := 1^2\times 3^4$

$\mathbf{82} := 1^2+3^4$

$\mathbf{83} := 1\times 2+3^4$

$\mathbf{84} := 12\times(3+4)$

$\mathbf{85} := 1+2\times(-3+45)$

$\mathbf{86} := -1+23\times 4-5$

$\mathbf{87} := (1+2)!+3^4$

$\mathbf{88} := (-1+23)\times 4$

$\mathbf{89} := 1+2^{3!}+4!$

$\mathbf{90} := (1+2)\times(3!+4!)$

$\mathbf{91} := -1+23\times 4$

$\mathbf{92} := 1\times 23\times 4$

$\mathbf{93} := 12+3^4$

$\mathbf{94} := -1\times 2+3\times\sqrt{4^5}$

$\mathbf{95} := -1+(-2+3!)\times 4!$

$\mathbf{96} := (1+23)\times 4$

$\mathbf{97} := 1+(-2+3!)\times 4!$

$\mathbf{98} := 12+3^4+5$

$\mathbf{99} := 1+2+3\times\sqrt{4^5}$

$\mathbf{100} := (1+(-2+3!)!)\times 4$

$\mathbf{101} := (1+23)\times 4+5$

$\mathbf{102} := (1+2)\times 34$

$\mathbf{103} := 123-4\times 5$

$\mathbf{104} := 123-4!+5$

$\mathbf{105} := -12-3+4!\times 5$

$\mathbf{106} := 1^2+(-3+4!)\times 5$

$\mathbf{107} := (1+2)\times 34+5$

$\mathbf{108} := (1+2)^3\times 4$

$\mathbf{109} := 1\times 2^{3!}+45$

$\mathbf{110} := (-12+34)\times 5$

$\mathbf{111} := -12\times 3/4+5!$

$\mathbf{112} := -12/3-4+5!$

$\mathbf{113} := -1+234-5!$

$\mathbf{114} := -(1+2)!+(3+\sqrt{4})!$

$\mathbf{115} := -1+(2+3)!-4$

$\mathbf{116} := 1\times(2+3)!-4$

$\mathbf{117} := 1+(2+3)!-4$

$\mathbf{118} := 1\times(2+3)!-\sqrt{4}$

$\mathbf{119} := -1+(2+3)!$

$\mathbf{120} := (1\times 2+3)!$

$\mathbf{121} := 1+(2+3)!$

$\mathbf{122} := 1\times 2+(3+\sqrt{4})!$

$\mathbf{123} := 123$

$\mathbf{124} := 1\times(2+3)!+4$

$\mathbf{125} := 1+(2+3)!+4$

$\mathbf{126} := (1+2)!\times(-3+4!)$

$\mathbf{127} := 123+4$

$\mathbf{128} := 1\times 2^{3+4}$

$\mathbf{129} := 1+2^{3+4}$

$\mathbf{130} := (1+2^{3!})\times\sqrt{4}$

$\mathbf{131} := 12+3-4+5!$

$\mathbf{132} := 12+(3+\sqrt{4})!$

$133 := -1 \times 2 + 3 \times 45$
$134 := 1 - 2 + 3 \times 45$
$135 := 1^2 \times 3 \times 45$
$136 := 1^2 + 3 \times 45$
$137 := 1 \times 2 + 3 \times 45$
$138 := -(1+2)! + 3! \times 4!$
$139 := 12 \times 3 \times 4 - 5$
$140 := (1 + 23 + 4) \times 5$
$141 := -1 - 2 + 3! \times 4!$
$142 := -1 \times 2 + 3! \times 4!$
$143 := -1 + 2 \times 3 \times 4!$
$144 := 12 \times 3 \times 4$
$145 := 1 + 2 \times 3 \times 4!$
$146 := 1 \times 2 + 3! \times 4!$
$147 := 123 + (4)!$
$148 := 1 + 23 + 4 + 5!$
$149 := 12 \times 3 \times 4 + 5$
$150 := (1+2)! + 3! \times 4!$
$151 := -1 - 2 + 34 + 5!$
$152 := 123 + 4! + 5$
$153 := (1+2) \times (3! + 45)$
$154 := 1^2 \times (34 + 5!)$
$155 := 1^2 + 34 + 5!$
$156 := 12 + 3! \times 4!$
$157 := 1 \times 2 \times 3^4 - 5$
$158 := -12 + 34 \times 5$
$159 := -1 - (2 - 34) \times 5$
$160 := (12 \times 3 - 4) \times 5$
$161 := -1 + 2 \times 3^4$
$162 := 1 \times 2 \times 3^4$
$163 := 1 + 2 \times 3^4$
$164 := -1 + (2+3)! + 45$
$165 := (1 - 2 + 34) \times 5$
$166 := 12 + 34 + 5!$
$167 := 1 \times 2 \times 3^4 + 5$
$168 := (1 + 2 \times 3) \times 4!$
$169 := (1 + 2 \times 3!)^{\sqrt{4}}$
$170 := 1^2 \times 34 \times 5$
$171 := 1^2 + 34 \times 5$
$172 := 1 \times 2 + 34 \times 5$
$173 := 1 + 2 + 34 \times 5$
$174 := -(1+2)! + 3!!/4$
$175 := (1^2 + 34) \times 5$
$176 := 1 \times 2 + 3! \times (4! + 5)$
$177 := (-12 + 3!!)/4$
$178 := -1 \times 2 + 3!!/4$
$179 := 1 - 2 + 3!!/4$
$180 := (\sqrt{12 \times 3})!/4$
$181 := 1 + (2 \times 3)!/4$
$182 := 1 \times 2 + 3!!/4$
$183 := (12 + 3!!)/4$
$184 := 1 - 2 + 3!!/4 + 5$
$185 := (1 + 2 + 34) \times 5$
$186 := (1+2)! + 3!!/4$
$187 := -1 + 2 \times 34 + 5!$
$188 := 1 \times 2 \times 34 + 5!$
$189 := 1 + 2 \times 34 + 5!$
$190 := -1 \times 2 + 3 \times 4! + 5!$
$191 := -1 + 2^3 \times 4!$
$192 := 1 \times 2^3 \times 4!$
$193 := 1 + 2^3 \times 4!$
$194 := 1 \times 2 + 3 \times 4! + 5!$
$195 := (12 + 3 + 4!) \times 5$
$196 := (12 \times 3! + 4) + 5!$
$197 := (1+2)!^3 - 4! + 5$
$198 := -1 - 2 + 3^4 + 5!$
$199 := -1 \times 2 + 3^4 + 5!$
$200 := (12 \times 3 + 4) \times 5$
$201 := 1^2 \times (3^4 + 5!)$
$202 := -1 + 2 + 3^4 + 5!$
$203 := (-1 + 2 + 3!) \times (4! + 5)$
$204 := (1+2)! \times 34$
$205 := (1 + 2^{3!} - 4!) \times 5$
$206 := -1 + 23 \times (4+5)$
$207 := 1 \times 23 \times (4+5)$
$208 := 1 + 23 \times (4+5)$
$209 := (1+2)! \times 34 + 5$
$210 := 1 \times 2 \times (-3 + 4!) \times 5$
$211 := -1 + 23 \times 4 + 5!$
$212 := (1+2)!^3 - 4$
$213 := 12 + 3^4 + 5!$
$214 := (1+2)!^3 - \sqrt{4}$
$215 := (1 + 2 \times (-3 + 4!)) \times 5$
$216 := (1+2)!^3$
$217 := (1+2)!^3 - 4 + 5$
$218 := (1+2)!^3 + \sqrt{4}$
$219 := 123 - 4! + 5!$
$220 := (1+2)!^3 + 4$
$221 := 12 \times (-3! + 4!) + 5$
$222 := (1+2) \times 34 + 5!$
$223 := (1+2)!^3 + \sqrt{4} + 5$
$224 := -1 + (2+3) \times 45$
$225 := (12+3)^{\sqrt{4}}$
$226 := 1 + (2+3) \times 45$
$227 := -1 + 2 \times 3! \times (4! - 5)$
$228 := (-1 + 234 - 5)$
$229 := 1 \times 234 - 5$
$230 := (12 + 34) \times 5$
$231 := (1+2)!!/3 - 4 - 5$
$232 := 1 \times 2^3 \times (4! + 5)$
$233 := -1 + 234$
$234 := 1 \times 234$
$235 := 1 + 234$
$236 := (1+2)!!/3 - 4$
$237 := 1 + (2+3)! - 4 + 5!$

$238 := (1+2)!!/3 - \sqrt{4}$
$239 := -1 + (2+3)! \times \sqrt{4}$
$240 := (1+2)!!/3$
$241 := 1 + (2+3)! \times \sqrt{4}$
$242 := (1 + (2+3)!) \times \sqrt{4}$
$243 := (1+2) \times 3^4$
$244 := (1+2)!!/3 + 4$
$245 := (1+2)!^3 + 4! + 5$
$246 := 123 \times \sqrt{4}$
$247 := 123 + 4 + 5!$
$248 := (1+2) \times 3^4 + 5$
$249 := (1+2)!!/3 + 4 + 5$
$250 := -1 + (-2 + 3!)^4 - 5$
$251 := (12/3)^4 - 5$
$252 := 12 \times (-3 + 4!)$
$253 := -1 + 2 \times (3 + 4 + 5!)$
$254 := 1 \times 2 \times (3 + 4 + 5!)$
$255 := -1 + (2 - 3!)^4$
$256 := (12/3)^4$
$257 := 1 + (2 - 3!)^4$
$258 := -12 + 3! \times 45$
$259 := -1 + 2 \times (3! + 4 + 5!)$
$260 := (1 + 2^{3!}) \times 4$
$261 := (12/3)^4 + 5$
$262 := -1 + 23 + \sqrt{4} \times 5!$
$263 := -1 + 2 \times (3 \times 4 + 5!)$
$264 := \sqrt{1 + (2+3)!} \times 4!$
$265 := (-1 + 2 \times (3 + 4!)) \times 5$
$266 := 1 \times 2 + 3! \times 4! + 5!$
$267 := 123 + 4! + 5!$
$268 := -1 \times 2 + 3! \times 45$
$269 := 1 - 2 + 3! \times 45$
$270 := 1 \times 2 \times 3 \times 45$
$271 := 1 + 2 \times 3 \times 45$
$272 := 1 \times 2 + 3! \times 45$

$273 := 1 + 2 + 3! \times 45$
$274 := -1 + 2 + 3 + 45 \times 6$
$275 := (1 + 2 \times (3 + 4!)) \times 5$
$276 := 12 \times (3 + 4 \times 5)$
$277 := -1 + 2 \times (3! \times 4! - 5)$
$278 := 1 \times 2 \times (3! \times 4! - 5)$
$279 := (1+2) \times (-3 - 4! + 5!)$
$280 := (12 - 3 - 4) \times 56$
$281 := -1 + 2 \times (-3 + 4! + 5!)$
$282 := 12 + 3! \times 45$
$283 := 12 \times 3! \times 4 - 5$
$284 := 1 + 2 \times 3! \times 4! - 5$
$285 := (12 + 3) \times (4! - 5)$
$286 := -1 \times 2 + 3 \times (-4! + 5!)$
$287 := -1 + 2 \times 3! \times 4!$
$288 := 12 \times 3! \times 4$
$289 := 1 + 2 \times 3! \times 4!$
$290 := 1 \times 2 + 3 \times (-4! + 5!)$
$291 := 1 + 2 + 3 \times (-4! + 5!)$
$292 := -1 + 2 \times 3! \times 4! + 5$
$293 := 12 \times 3! \times 4 - 5$
$294 := (1+2)! - 3 \times (4! - 5!)$
$295 := (-1 + 2^{3!} - 4) \times 5$
$296 := 12 \times 3! + 4 \times 56$
$297 := (1+2) \times (3 - 4! + 5!)$
$298 := -1 \times 2 + 3!!/4 + 5!$
$299 := 1 - 2 + 3!!/4 + 5!$
$300 := (12 + 3) \times 4 \times 5$
$301 := -1 + 2 + 3!!/4 + 5!$
$302 := 1 \times 2 + 3!!/4 + 5!$
$303 := (12 + 3!!)/4 + 5!$
$304 := 1 \times 2^{3!} + \sqrt{4} \times 5!$
$305 := (1 + 2^{3!} - 4) \times 5$
$306 := (1+2)! \times (3! + 45)$
$307 := -1 + 2 \times (34 + 5!)$

$308 := 1 \times 2 \times (34 + 5!)$
$309 := 1 + 2 \times (34 + 5!)$
$310 := (1 \times 2^{3!} - \sqrt{4}) \times 5$
$311 := -1 + 2^3 \times 4! + 5!$
$312 := (1 + 2 \times 3!) \times 4!$
$313 := 1 + 2^3 \times 4! + 5!$
$314 := 1 \times 2 + 3! \times (-4 + 56)$
$315 := (1 + 2 \times 3) \times 45$
$316 := (1+2)! - 3!! + 4^5 + 6$
$317 := (1 + 2 \times 3!) \times 4! + 5$
$318 := (1 \times 2^3 + 45) \times 6$
$319 := (-1 + 2 \times 3!) \times (4! + 5)$
$320 := 1 \times 2^{3 \times \sqrt{4}} \times 5$
$321 := 1 + 2^{3 \times \sqrt{4}} \times 5$
$322 := 1 \times 23 \times (4 \times 5 - 6)$
$323 := 1 - 2 + 3! \times (4 + 5) \times 6$
$324 := 12 \times (3 + 4!)$
$325 := (-1 + 2^{3!} + \sqrt{4}) \times 5$
$326 := 1 \times 2 + 3! \times (4 + 5) \times 6$
$327 := -12 + 345 - 6$
$328 := 1 \times 2 \times (34 \times 5 - 6)$
$329 := 12 \times (3 + 4!) + 5$
$330 := (1+2) \times (-3! - 4 + 5!)$
$331 := 1 + (2^{3!} + \sqrt{4}) \times 5$
$332 := (1+2)!^3 - 4 + 5!$
$333 := -12 + 345$
$334 := (1+2)!^3 - \sqrt{4} + 5!$
$335 := (-1 + 2 \times 34) \times 5$
$336 := -12 + 3 \times (-4 + 5!)$
$337 := -1 \times 2 + 345 - 6$
$338 := (1+2)!^3 + \sqrt{4} + 5!$
$339 := -(1+2)! + 345$
$340 := 1 \times 2 \times 34 \times 5$
$341 := 1 + 2 \times 34 \times 5$
$342 := -1 - 2 + 345$

$\mathbf{343} := -1 \times 2 + 345$

$\mathbf{344} := 1 - 2 + 345$

$\mathbf{345} := 1^2 \times 345$

$\mathbf{346} := 1^2 + 345$

$\mathbf{347} := 1 \times 2 + 345$

$\mathbf{348} := -12 + 3!!/\sqrt{4}$

$\mathbf{349} := -1 + (-2 + 3 \times 4!) \times 5$

$\mathbf{350} := 1 \times 2 + 3 \times (-4 + 5!)$

$\mathbf{351} := (1 + 2)! + 345$

$\mathbf{352} := (-1 + 2 \times 3!) \times \sqrt{4^5}$

$\mathbf{353} := -1 + 234 + 5!$

$\mathbf{354} := (-12 + 3!!)/\sqrt{4}$

$\mathbf{355} := 1 + 234 + 5!$

$\mathbf{356} := 1 + 2 \times 3!!/4 - 5$

$\mathbf{357} := -1 - 2 + 3!!/\sqrt{4}$

$\mathbf{358} := -1 \times 2 + 3!!/\sqrt{4}$

$\mathbf{359} := -1 + 2 \times 3!!/4$

$\mathbf{360} := (12 + 3) \times 4!$

$\mathbf{361} := 1 + (2 \times 3)!/\sqrt{4}$

$\mathbf{362} := 1 + (2 + 3!!)/\sqrt{4}$

$\mathbf{363} := 1 + 2 + 3!!/\sqrt{4}$

$\mathbf{364} := (1 + (2 + 3)!) \times 4 - 5!$

$\mathbf{365} := (12 + 3) \times 4! + 5$

$\mathbf{366} := (12 + 3!!)/\sqrt{4}$

$\mathbf{367} := 1 \times 2 + 3!!/\sqrt{4} + 5$

$\mathbf{368} := 1 + 2 + 3!!/\sqrt{4} + 5$

$\mathbf{369} := 123 \times \sqrt{4 + 5}$

$\mathbf{370} := (1 \times 2 + 3 \times 4!) \times 5$

$\mathbf{371} := 1 - 2 + 3 \times (4 + 5!)$

$\mathbf{372} := 12 + 3!!/\sqrt{4}$

$\mathbf{373} := -1 + 2 + 3 \times (4 + 5!)$

$\mathbf{374} := 1 \times 2 + 3 \times (4 + 5!)$

$\mathbf{375} := 1 + 2 + 3 \times (4 + 5!)$

$\mathbf{376} := (12/3)^4 + 5!$

$\mathbf{377} := 1 + 2^{3!} \times 4 + 5!$

$\mathbf{378} := (1 + 2) \times (3! + 4! \times 5)$

$\mathbf{379} := -1 - 2 \times 34 \times 5 + 6!$

$\mathbf{380} := (12 \times 3! + 4) \times 5$

$\mathbf{381} := (1 + 2) \times (3 + 4 + 5!)$

$\mathbf{382} := 1 \times 2 \times (3!!/4 + 5 + 6)$

$\mathbf{383} := -1 + 2 \times (3 \times 4! + 5!)$

$\mathbf{384} := 12 \times (3! - 4)^5$

$\mathbf{385} := 1 + 2 \times (3 \times 4! + 5!)$

$\mathbf{386} := 12 + 34 \times (5 + 6)$

$\mathbf{387} := (1 + 2) \times (\sqrt{3^4} + 5!)$

$\mathbf{388} := -1 + (-2 + 3^4) \times 5 - 6$

$\mathbf{389} := -1 + 2 \times (3 \times 4! + 5!) + 6$

$\mathbf{390} := (-1 - 2 + 3^4) \times 5$

$\mathbf{391} := -1 + 2^{\sqrt{3^4}} - 5!$

$\mathbf{392} := 1 \times 2^{\sqrt{3^4}} - 5!$

$\mathbf{393} := -12 + 3^4 \times 5$

$\mathbf{394} := -1 + (-2 + 3^4) \times 5$

$\mathbf{395} := 1 \times (-2 + 3^4) \times 5$

$\mathbf{396} := 1 + (-2 + 3^4) \times 5$

$\mathbf{397} := 12 \times 34 - 5 - 6$

$\mathbf{398} := 1 - 2 + 3^4 \times 5 - 6$

$\mathbf{399} := -(1 + 2)! + 3^4 \times 5$

$\mathbf{400} := (1 - 2 + 3^4) \times 5$

$\mathbf{401} := -1 + 2 \times (3^4 + 5!)$

$\mathbf{402} := -1 - 2 + 3^4 \times 5$

$\mathbf{403} := 12 \times 34 - 5$

$\mathbf{404} := 1 - 2 + 3^4 \times 5$

$\mathbf{405} := (12 - 3) \times 45$

$\mathbf{406} := 1^2 + 3^4 \times 5$

$\mathbf{407} := (1 \times (2 + ((3^4) \times 5)))$

$\mathbf{408} := (12 \times 34)$

$\mathbf{409} := 1 + 2 \times 3! \times 4! + 5!$

$\mathbf{410} := (1^2 + 3^4) \times 5$

$\mathbf{411} := (1 + 2)! + 3^4 \times 5$

$\mathbf{412} := -1 \times 2 \times (34 + 5!) + 6!$

$\mathbf{413} := 12 \times 34 + 5$

$\mathbf{414} := -1 + (2 + 3^4) \times 5$

$\mathbf{415} := (1 \times 2 + 3^4) \times 5$

$\mathbf{416} := 1 + (2 + 3^4) \times 5$

$\mathbf{417} := 12 + 3^4 \times 5$

$\mathbf{418} := (-1 + 23) \times (4! - 5)$

$\mathbf{419} := 12 \times 34 + 5 + 6$

$\mathbf{420} := 12 \times (3 + 4) \times 5$

$\mathbf{421} := 12^3/4 - 5 - 6$

$\mathbf{422} := 1 \times 2 \times (-3! \times 4! - 5) + 6!$

$\mathbf{423} := (1 + 2) \times (-3 + 4! + 5!)$

$\mathbf{424} := -1 \times 2 + 3 \times (4! + 5!) - 6$

$\mathbf{425} := -1 + 23 \times 4! - 5! - 6$

$\mathbf{426} := -(1 + 2)! + 3 \times (4! + 5!)$

$\mathbf{427} := (1 + 2) \times 3! \times 4! - 5$

$\mathbf{428} := 12 \times 34 + 5!/6$

$\mathbf{429} := -1 - 2 + 3 \times (4! + 5!)$

$\mathbf{430} := -1 \times 2 + 3 \times (4! + 5!)$

$\mathbf{431} := -1 + 23 \times 4! - 5!$

$\mathbf{432} := (12 + 3!) \times 4!$

$\mathbf{433} := -1 + 2 + 3 \times (4! + 5!)$

$\mathbf{434} := 1 \times 2 + 3 \times (4! + 5!)$

$\mathbf{435} := (12 + 3) \times (4! + 5)$

$\mathbf{436} := -1 + 23 \times (4! - 5)$

$\mathbf{437} := (1 + 2) \times 3! \times 4! + 5$

$\mathbf{438} := 1 + 23 \times (4! - 5)$

$\mathbf{439} := -1 + (2^{3!} + 4!) \times 5$

$\mathbf{440} := (-1 + 23) \times 4 \times 5$

$\mathbf{441} := (1 + 2) \times (3 + 4! + 5!)$

$\mathbf{442} := -1 \times 2 \times (3! \times 4! - 5) + 6!$

$\mathbf{443} := 12^3/4 + 5 + 6$

$\mathbf{444} := 12 + 3 \times (4! + 5!)$

$\mathbf{445} := (1 + 2^{3!} + 4!) \times 5$

$\mathbf{446} := (-1 + 23) \times 4 \times 5 + 6$

$447 := (1+2) \times (3! \times 4! + 5)$
$448 := 1 \times 2^{3!} \times (\sqrt{4} + 5)$
$449 := 1 + 2^{3!} \times (\sqrt{4} + 5)$
$450 := (1+2) \times (3! + 4!) \times 5$
$451 := -1 \times 2 - 3 + 456$
$452 := 1 - 2 - 3 + 456$
$453 := -(1+2)^3 + 4 \times 5!$
$454 := 1^2 - 3 + 456$
$455 := (-1 + 23 \times 4) \times 5$
$456 := (1+23) \times (4! - 5)$
$457 := -1 \times 23 + 4 \times 5!$
$458 := 1 - 23 + 4 \times 5!$
$459 := -1 + 23 \times 4 \times 5$
$460 := 1 \times 23 \times 4 \times 5$
$461 := 1 + 23 \times 4 \times 5$
$462 := (1+2) \times (34 + 5!)$
$463 := -1 + (-2 + 3!) \times (-4 + 5!)$
$464 := 12/3 \times (-4 + 5!)$
$465 := (12 + 3^4) \times 5$
$466 := (1+2)! \times 3^4 - 5!/6$
$467 := -1 - 2 \times 3! + 4 \times 5!$
$468 := 12 \times (34 + 5)$
$469 := 1 - 2 \times 3! + 4 \times 5!$
$470 := 1 \times 2 - 3! + 4 \times 5! - 6$
$471 := -(1+2) - 3! + 4 \times 5!$
$472 := -1 \times 2 - 3! + 4 \times 5!$
$473 := 1 - 2^3 + 4 \times 5!$
$474 := -12 + 3! + 4 \times 5!$
$475 := 1 \times (2+3)! \times 4 - 5$
$476 := (-1 + (2+3)!) \times 4$
$477 := (1-2) \times 3 + 4 \times 5!$
$478 := -1 + 2 - 3 + 4 \times 5!$
$479 := -1 + (2+3)! \times 4$
$480 := 1 \times (2+3)! \times 4$
$481 := 1 + (2+3)! \times 4$
$482 := 1 - 2 + 3 + 4 \times 5!$
$483 := (-1+2) \times (3 + 4 \times 5!)$
$484 := (-1+23)^{\sqrt{4}}$
$485 := 1 \times (2+3)! \times 4 + 5$
$486 := (1+2)! \times 3^4$
$487 := 123 \times 4 - 5$
$488 := 1 \times 2^3 + 4 \times 5!$
$489 := 12 - 3 + 4 \times 5!$
$490 := -(12 + 34) \times 5 + 6!$
$491 := (1+2)! \times 3^4 + 5$
$492 := 123 \times 4$
$493 := 1 + 2 \times 3! + 4 \times 5!$
$494 := 1 \times 2 \times (3 + 4 - 5!) + 6!$
$495 := (123 - 4!) \times 5$
$496 := 12/3 \times (4 + 5!)$
$497 := 123 \times 4 + 5$
$498 := 12 + 3! + 4 \times 5!$
$499 := 1 \times (2+3)^4 - 5! - 6$
$500 := (1 + (-2 + 3!)!) \times 4 \times 5$
$501 := 12 + 3 + 4 \times 5! + 6$
$502 := -1 + 23 + 4 \times 5!$
$503 := 1 \times 23 + 4 \times 5!$
$504 := 12 \times (-3 + 45)$
$505 := (-1 + 2 \times 3)^4 - 5!$
$506 := 1 + (2+3)^4 - 5!$
$507 := (1+2)^3 + 4 \times 5!$
$508 := 1 + 2^{\sqrt{34}} - 5$
$509 := 1234 - 5 - 6!$
$510 := (1+2) \times 34 \times 5$
$511 := -1 + 2^{\sqrt{34}}$
$512 := 1 \times 2^{\sqrt{34}}$
$513 := 1 + 2^{\sqrt{34}}$
$514 := -1 \times 2 - (34 - 5!) \times 6$
$515 := (1 + 2^{3!}) \times (4! - 5) - 6!$
$516 := 12 \times 3 + 4 \times 5!$
$517 := 1 \times 2^{\sqrt{34}} + 5$
$518 := 1 + 2^{\sqrt{34}} + 5$
$519 := (1+2)!! - 3^4 - 5!$
$520 := (-1 \times 2 + 3!) \times (4 + 5! + 6)$
$521 := 1 - 2 + 3 \times (4! + 5) \times 6$
$522 := (1+2) \times 3! \times (4! + 5)$
$523 := (-1 + 23) \times 4! + 5$
$524 := 1 \times 23^{\sqrt{4}} - 5$
$525 := (1+2) \times (3!!/4 - 5)$
$526 := -1 + 23 + 4 \times (5! + 6)$
$527 := -1 + 2 \times (3! \times 4! + 5!)$
$528 := -1 + 23^{\sqrt{4}}$
$529 := 1 \times 23^{\sqrt{4}}$
$530 := 1 + 23^{\sqrt{4}}$
$531 := -1 + 23 \times 4! - 5!/6$
$532 := 1 \times 23 \times 4! - 5!/6$
$533 := (-1 + 23) \times 4! + 5$
$534 := 1 \times 23^{\sqrt{4}} + 5$
$535 := (1+2) \times 3!!/4 - 5$
$536 := -1 \times 2^{3!} - 4! \times 5 + 6!$
$537 := (1+2) \times (3!!/4 + 5 - 6)$
$538 := -1 \times 2 - (3! - 4!) \times 5 \times 6$
$539 := -1 + 2 \times 3! \times 45$
$540 := (1+2) \times 3!!/4$
$541 := 1 + 2 \times 3! \times 45$
$542 := 1 + 23 \times 4! - 5 - 6$
$543 := -1 + 2^{3!} + 4 \times 5!$
$544 := 1 \times 2^{3!} + 4 \times 5!$
$545 := (1+2) \times 3!!/4 + 5$
$546 := -1 + 23 \times 4! - 5$
$547 := 1 \times 23 \times 4! - 5$
$548 := 1 + 23 \times 4! - 5$
$549 := -1 + (2+3) \times (-4 + 5! - 6)$
$550 := (1+2)!! - 34 \times 5$
$551 := -1 + 23 \times 4!$

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$552 := 1 \times 23 \times 4!$

$553 := 1 + 23 \times 4!$

$554 := 1 - 23 - 4! - 5! + 6!$

$555 := (1+2) \times (3!!/4 + 5)$

$556 := -1 + 23 \times 4! + 5$

$557 := 1 \times 23 \times 4! + 5$

$558 := 1 + 23 \times 4! + 5$

$559 := 1 - 2 \times 3^4 + 5! \times 6$

$560 := -12 \times 3 - 4 - 5! + 6!$

$561 := 1^2 + (3! + 4) \times 56$

$562 := 12 - 34 \times 5 + 6!$

$563 := 1 + 2 + (3! + 4) \times 56$

$564 := -12 + 3!! - 4! - 5!$

$565 := 1 - 2 - 34 - 5! + 6!$

$566 := (1+2)!! - 34 - 5!$

$567 := (-1 + 2^{3!}) \times (4 + 5)$

$568 := -12 \times 3 + 4 - 5! + 6!$

$569 := (1 - 2 \times 3)^4 - 56$

$570 := -(1+2)! - 3! \times (4! - 5!)$

$571 := (1 + 23) \times 4! - 5$

$572 := 1 + (-2 + 3!)! \times 4! - 5$

$573 := (1+2)!! - 3 - 4! - 5!$

$574 := -1 \times 2 + 3!! - 4! - 5!$

$575 := -1 + (-2 + 3!)! \times 4!$

$576 := (1 + 23)^{\sqrt{4}}$

$577 := 1 + (-2 + 3!)! \times 4!$

$578 := 1 \times 2 + 3! \times (-4! + 5!)$

$579 := -1 + (2+3) \times (-4 + 5!)$

$580 := (1 - 2 \times 3) \times (4 - 5!)$

$581 := 1 + (2+3) \times (-4 + 5!)$

$582 := (1+2)! + 3!! - 4! - 5!$

$583 := 1 + (2 \times 3)! \times 4/5 + 6$

$584 := -12 + 3!! - 4 - 5!$

$585 := (1 + 2 \times 3!) \times 45$

$586 := -12 + 3!! - \sqrt{4} - 5!$

$587 := 1 \times 2 - 3 \times 45 + 6!$

$588 := (1+2)!! - 3 \times 4 - 5!$

$589 := -1 + (2+3) \times (-\sqrt{4} + 5!)$

$590 := (1+2)!! - 3! - 4 - 5!$

$591 := 1 + (2+3) \times (-\sqrt{4} + 5!)$

$592 := -12 + 3!! + 4 - 5!$

$593 := -1 - 2 + 3!! - 4 - 5!$

$594 := (1+2)!! - 3! - 4! \times 5$

$595 := (123 - 4) \times 5$

$596 := 1 \times (2 \times 3)! - 4 - 5!$

$597 := 1 + (2 \times 3)! - 4 - 5!$

$598 := 1 \times 2 + 3!! - 4 - 5!$

$599 := 1 - 2 + 3!! - 4! \times 5$

$600 := (1+2)!! - (3 + \sqrt{4})!$

$601 := (1+2)!! - 3 + 4 - 5!$

$602 := -1 \times 2 + 3!! + 4 - 5!$

$603 := 123 + 4 \times 5!$

$604 := 1 \times (2 \times 3)! + 4 - 5!$

$605 := (123 - \sqrt{4}) \times 5$

$606 := (1+2)! \times 3^4 + 5!$

$607 := 1 + 2 + 3!! + 4 - 5!$

$608 := 12 + 3!! - 4 - 5!$

$609 := (1+2)^{3!} - 4! \times 5$

$610 := (1+2)!! + 3! + 4 - 5!$

$611 := 1 + (2 + (3 + \sqrt{4})!) \times 5$

$612 := 12 \times (3! + 45)$

$613 := (1+2)^{3!} + 4 - 5!$

$614 := 12 + 3!! + \sqrt{4} - 5!$

$615 := (-1 + (2+3)! + 4) \times 5$

$616 := 12 + 3!! + 4 - 5!$

$617 := -1 - 2 \times 3 + 4! - 5! + 6!$

$618 := (1+2)!! - 3! + 4! - 5!$

$619 := -1 + (2+3)^4 - 5$

$620 := 1 \times (2+3)^4 - 5$

$621 := 1 + (2+3)^4 - 5$

$622 := -1 \times 2 + 3!! + 4! - 5!$

$623 := 1 - 2 + 3!! + 4! - 5!$

$624 := -1 + (2+3)^4$

$625 := 1 \times (2+3)^4$

$626 := 1 + (2+3)^4$

$627 := 1 + 2 + 3!! + 4! - 5!$

$628 := 1 + 23 + 4 - 5! + 6!$

$629 := -1 + (2+3)^4 + 5$

$630 := (1 - 2 \times 3)^4 + 5$

$631 := 1 + (2+3)^4 + 5$

$632 := 1 \times 2^{\sqrt{3^4}} + 5!$

$633 := (1+2)!! - 3 \times (4! + 5)$

$634 := (1+2)!! + 34 - 5!$

$635 := (123 + 4) \times 5$

$636 := 12 + 3!! + 4! - 5!$

$637 := 1 + 2 + 34 - 5! + 6!$

$638 := (-1 + 23) \times (4! + 5)$

$639 := (1+2)!! - 3^4$

$640 := 1 \times 2^{3+4} \times 5$

$641 := 1 + 2^{3+4} \times 5$

$642 := -123 + 45 + 6!$

$643 := (1+2)^3 \times 4! - 5$

$644 := (1+2)!! - 3^4 + 5$

$645 := (1 + 2^{3+4}) \times 5$

$646 := 12 - 3^4 - 5 + 6!$

$647 := -1 \times 2^{3!} - 4 - 5 + 6!$

$648 := (1+2)^3 \times 4!$

$649 := 1 \times 23^{\sqrt{4}} + 5!$

$650 := (1 + 2^{3!}) \times \sqrt{4} \times 5$

$651 := -1 - 23 - 45 + 6!$

$652 := -1 \times 23 - 45 + 6!$

$653 := (1+2)^3 \times 4! + 5$

$654 := (1 \times 2^{3!} + 45) \times 6$

$655 := -1 - 2^{3!} + (-\sqrt{4} + 5)!!$

$656 := -1 \times 2^{3!} + (\sqrt{4 + 5})!!$

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$656 := 1 + (2+3)^4 + 5 \times 6$
$657 := 1 - 2^{3!} + (\sqrt{4+5})!!$
$658 := 1 - 2 \times 34 + 5 + 6!$
$659 := -1 + (2 \times 3)! - 4 - 56$
$660 := (-12 + 3! \times 4!) \times 5$
$661 := 1 - 2^{3!} + 4 + 5! \times 6$
$662 := (1+2) \times (3 - 4!) + 5 + 6!$
$663 := -12 + 3!! - 45$
$664 := -(1+2)^3 - 4! - 5 + 6!$
$665 := -1 - 2 + 3!! + 4 - 56$
$666 := -1 + 23 \times (4! + 5)$
$667 := 1 \times 23 \times (4! + 5)$
$668 := 1 + 23 \times (4! + 5)$
$669 := (1+2)!! - 3! - 45$
$670 := (1+2)!! - (3! + 4) \times 5$
$671 := -1 + 23 \times 4! + 5!$
$672 := 1 \times 23 \times 4! + 5!$
$673 := 1 + 23 \times 4! + 5!$
$674 := -1 + (2 \times 3)! - 45$
$675 := (12 + 3) \times 45$
$676 := 1 + (2 \times 3)! - 45$
$677 := 1 \times 2 + 3!! - 45$
$678 := 1 + 2 + 3!! - 45$
$679 := -12 + 3!! - 4! - 5$
$680 := (1+2)!! - (3! + \sqrt{4}) \times 5$
$681 := (1+2)!! - 34 - 5$
$682 := -(1+2)! + 3!! - \sqrt{4^5}$
$683 := 1 \times 2 - 34 - 5 + 6!$
$684 := -12 + 3!! - 4!$
$685 := (1+2)!! - 3! - 4! - 5$
$686 := (1+2)!! - 34$
$687 := 12 + 3!! - 45$
$688 := (1+2)!! - 3 - 4! - 5$
$689 := -1 + 2 \times 345$
$690 := (1+2)!! - 3! - 4!$

$691 := 1 + 2 \times 345$
$692 := -1 + 2 + 3!! - 4! - 5$
$693 := (1+2)!! - 3 - 4!$
$694 := -1 \times 2 + 3!! - 4!$
$695 := 1 - 2 + 3!! - 4!$
$696 := (\sqrt{12 \times 3})! - 4!$
$697 := 1 + (2 \times 3)! - 4!$
$698 := 1 \times 2 + 3!! - 4!$
$699 := 1 + 2 + 3!! - 4!$
$700 := 1 \times (2 \times 3)! - 4 \times 5$
$701 := 1 + (2 \times 3)! - 4 \times 5$
$702 := (1+2)!! + 3! - 4!$
$703 := 12 + 3!! - 4! - 5$
$704 := -12 + 3!! - 4$
$705 := (1+2)^{3!} - 4!$
$706 := -12 + 3!! - \sqrt{4}$
$707 := 1 \times 2 + 3!! - 4 - 5 - 6$
$708 := -12 + 3!!$
$709 := -12 + 3!! - 4 + 5$
$710 := -12 + 3!! + \sqrt{4}$
$711 := (1+2)!! - \sqrt{3^4}$
$712 := -12 + 3!! + 4$
$713 := (1+2)!! - 3 - 4$
$714 := (1+2)!! - 3!$
$715 := -1 + (2 \times 3)! - 4$
$716 := (\sqrt{12 \times 3})! - 4$
$717 := (1+2)!! - 3$
$718 := -1 \times 2 + 3!!$
$719 := -1 + (2 \times 3)!$
$720 := (1+2)!!$
$721 := 1 + (2 \times 3)!$
$722 := 1 \times 2 + 3!!$
$723 := (1+2)!! + 3$
$724 := (\sqrt{12 \times 3})! + 4$
$725 := (1+2)^{3!} - 4$

$726 := (1+2)!! + 3!$
$727 := (1+2)^{3!} - \sqrt{4}$
$728 := 12 + 3!! - 4$
$729 := (1+2)^{3!}$
$730 := 12 + 3!! - \sqrt{4}$
$731 := (1+2)^{3!} + \sqrt{4}$
$732 := 12 + 3!!$
$733 := (1+2)^{3!} + 4$
$734 := 12 + 3!! + \sqrt{4}$
$735 := (1+2)^{3!} + (-4 + 5) \times 6$
$736 := 12 + 3!! + 4$
$737 := (1+2)!! - 3 + 4 \times 5$
$738 := (1+2)!! - 3! + 4!$
$739 := 1 - 2 + 3!! + 4 \times 5$
$740 := 1 \times (2 \times 3)! + 4 \times 5$
$741 := (1+2)!! - 3 + 4!$
$742 := -1 \times 2 + 3!! + 4!$
$743 := -1 + (2 \times 3)! + 4!$
$744 := (\sqrt{12 \times 3})! + 4!$
$745 := 1 + (2 \times 3)! + 4!$
$746 := 1 \times 2 + 3!! + 4!$
$747 := (1+2)!! + 3 + 4!$
$748 := 1 - 2 + 3!! + 4! + 5$
$749 := 1 \times (2 \times 3)! + 4! + 5$
$750 := (1+2)! + 3!! + 4!$
$751 := 1 \times 2 + 3!! + 4! + 5$
$752 := 1 + 2 + 3!! + 4! + 5$
$753 := (1+2)^{3!} + 4!$
$754 := (1+2)!! + 34$
$755 := (1+2)! + 3!! + 4! + 5$
$756 := 12 + 3!! + 4!$
$757 := 12 \times 3 - 4 + 5 + 6!$
$758 := (1+2)^{3!} + 4! + 5$
$759 := (1+2)!! + 34 + 5$
$760 := (1+2)!! + (3! + \sqrt{4}) \times 5$

$\mathbf{761} := 12+3!!+4!+5$

$\mathbf{762} := -1-2+3!!+45$

$\mathbf{763} := -1\times 2+3!!+45$

$\mathbf{764} := -1+(2\times 3)!+45$

$\mathbf{765} := (1+2+3)!+45$

$\mathbf{766} := -1+2+3!!+45$

$\mathbf{767} := 1\times 2+3!!+45$

$\mathbf{768} := 1+2+3!!+45$

$\mathbf{769} := 1+2^3\times(-4!+5!)$

$\mathbf{770} := (1+2)!!+(3!+4)\times 5$

$\mathbf{771} := (1+2)!+3!!+45$

$\mathbf{772} := -1+2^3+45+6!$

$\mathbf{773} := 1+(2\times 3)!-4+56$

$\mathbf{774} := (1+2)!!+3!\times(4+5)$

$\mathbf{775} := 1+(2\times 3)!+(4+5)\times 6$

$\mathbf{776} := 1+2^{3!}-4-5+6!$

$\mathbf{777} := 12+3!!+45$

$\mathbf{778} := -1\times 2+3!!+4+56$

$\mathbf{779} := -1+(2\times 3)!+4+56$

$\mathbf{780} := (12+3!\times 4!)\times 5$

$\mathbf{781} := 1^2+3!!+4+56$

$\mathbf{782} := 1\times 2+(3!+4+5!)\times 6$

$\mathbf{783} := (1+2)^3\times(4!+5)$

$\mathbf{784} := 1\times 2^{3!}+(\sqrt{4+5})!!$

$\mathbf{785} := 1+2^{3!}+(-\sqrt{4}+5)!!$

$\mathbf{786} := 12+3!!+4!+5\times 6$

$\mathbf{787} := (1+2)!!+3\times 4!-5$

$\mathbf{788} := 1\times 23+45+6!$

$\mathbf{789} := 1+23+45+6!$

$\mathbf{790} := -1\times 2+3\times 4!\times(5+6)$

$\mathbf{791} := 1+2\times(3+4)\times 5+6!$

$\mathbf{792} := (1+2)!!+3\times 4!$

$\mathbf{793} := 1\times 2\times 34+5+6!$

$\mathbf{794} := -12+3^4+5+6!$

$\mathbf{795} := 1+2+3\times 4!+5!\times 6$

$\mathbf{796} := (1+2)!!+3^4-5$

$\mathbf{797} := (1+2)!!+3\times 4!+5$

$\mathbf{798} := 123-45+6!$

$\mathbf{799} := 1+(-2+3\times 45)\times 6$

$\mathbf{800} := (1+2)!!+3!!/(4+5)$

$\mathbf{801} := (1+2)!!+3^4$

$\mathbf{802} := 1\times 2+3!!+4\times 5!/6$

$\mathbf{803} := -1-2-34+5!+6!$

$\mathbf{804} := 12\times(3\times 4!-5)$

$\mathbf{805} := (-1+2\times 3^4)\times 5$

$\mathbf{806} := (1+2)!!-34+5!$

$\mathbf{807} := (1+2)!!+3\times(4!+5)$

$\mathbf{808} := 1+23\times 4-5+6!$

$\mathbf{809} := -1+2\times 3^4\times 5$

$\mathbf{810} := (12+3!)\times 45$

$\mathbf{811} := 1+2\times 3^4\times 5$

$\mathbf{812} := (1-2^3)\times(4-5!)$

$\mathbf{813} := -1-2+3!!-4!+5!$

$\mathbf{814} := -1\times 2+3!!-4!+5!$

$\mathbf{815} := (1+2\times 3^4)\times 5$

$\mathbf{816} := 1\times(2\times 3)!-4!+5!$

$\mathbf{817} := 1+(2\times 3)!-4!+5!$

$\mathbf{818} := 1\times 2+3!!-4!+5!$

$\mathbf{819} := (1+2)!!+3-4!+5!$

$\mathbf{820} := -1-23+4+5!+6!$

$\mathbf{821} := -1\times 23+4+5!+6!$

$\mathbf{822} := (1+2)!+3!!-4!+5!$

$\mathbf{823} := 123-4\times 5+6!$

$\mathbf{824} := -12+3!!-4+5!$

$\mathbf{825} := (1+2)^{3!}-4!+5!$

$\mathbf{826} := -12+3!!-\sqrt{4}+5!$

$\mathbf{827} := -12+3-4+5!+6!$

$\mathbf{828} := (1+2)!!-3\times 4+5!$

$\mathbf{829} := -1+(2\times 3)!-4+5!-6$

$\mathbf{830} := (1+2)!!-3!-4+5!$

$\mathbf{831} := (1+2)!!-\sqrt{3^4}+5!$

$\mathbf{832} := -12+3!!+4+5!$

$\mathbf{833} := (1+2)!!-3-4+5!$

$\mathbf{834} := (1+2)!!-3!+4!\times 5$

$\mathbf{835} := -1+(2\times 3)!-4+5!$

$\mathbf{836} := 1\times(2\times 3)!-4+5!$

$\mathbf{837} := 1+(2\times 3)!-4+5!$

$\mathbf{838} := -1\times 2+(3+4)\times 5!$

$\mathbf{839} := 1-2+3!!+4!\times 5$

$\mathbf{840} := (1+2)!!+(3+\sqrt{4})!$

$\mathbf{841} := 1^2+(3+4)\times 5!$

$\mathbf{842} := 1\times 2+(3+4)\times 5!$

$\mathbf{843} := 1+2+(3+4)\times 5!$

$\mathbf{844} := (1+2+3)!+4+5!$

$\mathbf{845} := (1+2)^{3!}-4+5!$

$\mathbf{846} := (1+2)!+(3+4)\times 5!$

$\mathbf{847} := (1+2)!!+3+4+5!$

$\mathbf{848} := 12+3!!-4+5!$

$\mathbf{849} := (1+2)^{3!}+4!\times 5$

$\mathbf{850} := (1+2)!+3!!+4+5!$

$\mathbf{851} := (1+2)^{3!}+\sqrt{4}+5!$

$\mathbf{852} := 12\times 3^4-5!$

$\mathbf{853} := (1+2)^{3!}+4+5!$

$\mathbf{854} := (-1+2+3!)\times(\sqrt{4}+5!)$

$\mathbf{855} := (1+2)!!+(3+4!)\times 5$

$\mathbf{856} := 12+3!!+4+5!$

$\mathbf{857} := 1\times 2+3\times 45+6!$

$\mathbf{858} := (1+2)!!-3!+4!+5!$

$\mathbf{859} := 12\times 3\times 4!-5$

$\mathbf{860} := 1\times 2+3!!+4!+5!-6$

$\mathbf{861} := 123\times(\sqrt{4}+5)$

$\mathbf{862} := -1\times 2+3!!+4!+5!$

$\mathbf{863} := -1+2\times 3\times(4!+5!)$

$\mathbf{864} := 12\times 3\times 4!$

$\mathbf{865} := 1+2\times 3\times(4!+5!)$

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$866 := 1 \times 2 + 3!! + 4! + 5!$

$867 := (1+2)!! + 3 + 4! + 5!$

$868 := (-1+2^3) \times (4+5!)$

$869 := (12 \times 3) \times 4! + 5$

$870 := (1+2)! + 3! \times (4! + 5!)$

$871 := -1 - 2 + 34 + 5! + 6!$

$872 := 123 + 4! + 5 + 6!$

$873 := (1+2)^{3!} + 4! + 5!$

$874 := (1+2)!! + 34 + 5!$

$875 := 12 \times 3 \times 4! + 5 + 6$

$876 := 12 + 3!! + 4! + 5!$

$877 := 1 + 2 + 34 + 5! + 6!$

$878 := -12 + 34 \times 5 + 6!$

$879 := -12 + 3^4 \times (5+6)$

$880 := (1 - 2 + 3^4) \times (5+6)$

$881 := 1 + (-2+34) \times 5 + 6!$

$882 := (1+2)! \times (3 + 4! + 5!)$

$883 := -12 + 3!!/4 - 5 + 6!$

$884 := 12 \times 3 \times 4! + 5!/6$

$885 := (-12 + 3!!)/4 \times 5$

$886 := -1 + 23 + 4! + 5! + 6!$

$887 := -1 - 2 + 34 \times 5 + 6!$

$888 := -12 + 3!!/4 \times 5$

$889 := -1 + (-2 + 3!!/4) \times 5$

$890 := (-1 \times 2 + 3!!/4) \times 5$

$891 := 1 + (-2 + 3!!/4) \times 5$

$892 := 1 \times 2 \times (3^4 + 5) + 6!$

$893 := 1 - 2 + 3!! + (4! + 5) \times 6$

$894 := (1+2)!! + 3! \times (4! + 5)$

$895 := (1 - 2 + 3!!/4) \times 5$

$896 := 12/3 \times 4 \times 56$

$897 := -1 - 2 + 3!!/4 \times 5$

$898 := -1 \times 2 + 3!!/4 \times 5$

$899 := -1 + (2 \times 3)!/4 \times 5$

$900 := (1+2)!! + 3!!/4$

$901 := 1 + (2 \times 3)!/4 \times 5$

$902 := 1 \times 2 + 3!!/4 \times 5$

$903 := 1 + 2 + 3!!/4 \times 5$

$904 := -1 + (2 \times 3)!/4 + 5 + 6!$

$905 := (-1 + 2 + 3!!/4) \times 5$

$906 := (1+2)! + 3!!/4 \times 5$

$907 := -123 + 4^5 + 6$

$908 := 1 \times 2^{3!} + 4 + 5! + 6!$

$909 := -1 + (2 + 3!!/4) \times 5$

$910 := (1 \times 2 + 3!!/4) \times 5$

$911 := 1 + (2 + 3!!/4) \times 5$

$912 := 12 \times (3^4 - 5)$

$913 := 1 \times (2 + 3^4) \times (5+6)$

$914 := 1 \times 2 + 3 \times 4! + 5! + 6!$

$915 := (1 + 2 + 3!!/4) \times 5$

$916 := 12 \times 3! + 4 + 5! + 6!$

$917 := -1 + 2 \times (3 + 456)$

$918 := 1 \times 2 \times (3 + 456)$

$919 := (1+2)! \times 34 - 5 + 6!$

$920 := (-1 + 23 + 4!) \times 5!/6$

$921 := (1+2)!! + 3^4 + 5!$

$922 := -1 + 2 + 3^4 + 5! + 6!$

$923 := 1 \times 2 + 3^4 + 5! + 6!$

$924 := (1+2)! \times (34 + 5!)$

$925 := 1 + 2 \times (3! - 4! + 5!) + 6!$

$926 := -1 + 23 \times (4+5) + 6!$

$927 := -1 + 2^3 \times (-4 + 5!)$

$928 := 1 \times 2^3 \times (-4 + 5!)$

$929 := 1 + 2^3 \times (-4 + 5!)$

$930 := ((1+2)! + 3!!/4) \times 5$

$931 := (12 - 3) \times 4! - 5 + 6!$

$932 := 1 \times 23 \times 4 + 5! + 6!$

$933 := 1 + 23 \times 4 + 5! + 6!$

$934 := 1 \times (2 + 3!) \times (-4 + 5!) + 6$

$935 := (1 + 2 \times (-3 + 4!)) \times 5 + 6!$

$936 := (1+2)!! + 3!^{\sqrt{4+5}}$

$937 := (1+2)!^3 - 4 + 5 + 6!$

$938 := -(1+2)! + 3!! + 4 \times 56$

$939 := 123 - 4! + 5! + 6!$

$940 := (1 + (-2 + 3!)!) \times 4 + 5! + 6!$

$941 := -1 - 2 + 3!! + 4 \times 56$

$942 := (1+2) \times 34 + 5! + 6!$

$943 := -1 + (2 + 3!) \times (-\sqrt{4} + 5!)$

$944 := 1 \times 2^3 \times (-\sqrt{4} + 5!)$

$945 := 1 + (2 + 3!) \times (-\sqrt{4} + 5!)$

$946 := -1 \times 2 \times (3 + 4 - 5!) + 6!$

$947 := -1 + 2 \times (-3! + 4 \times 5!)$

$948 := -1 \times 2 \times (3! - 4 \times 5!)$

$949 := 1 + 2 \times (-3! + 4 \times 5!)$

$950 := 1 + 234 - 5 + 6!$

$951 := -1 + 2 \times (3!! - 4 + 5!) - 6!$

$952 := (-1 - 2 \times 3 + 4!) \times 56$

$953 := -1 + 2 \times (-3 + 4 \times 5!)$

$954 := 1 \times 2 \times (-3 + 4 \times 5!)$

$955 := 1 + 2 \times (-3 + 4 \times 5!)$

$956 := (1+2)!! + 3!!/4 + 56$

$957 := -1 - 2 + 3!! + \sqrt{4} \times 5!$

$958 := -1 \times 2 + 3!! + \sqrt{4} \times 5!$

$959 := -1 + 2^3 \times 4! \times 5$

$960 := (1+2)!!/3 \times 4$

$961 := 1 + 2^3 \times 4! \times 5$

$962 := 1 \times 2 + (3! + \sqrt{4}) \times 5!$

$963 := 1 + 2 + (3! + \sqrt{4}) \times 5!$

$964 := 1 \times 2 \times (3! - 4 + 5!) + 6!$

$965 := -1 + 2 \times (3 + 4 \times 5!)$

$966 := 1 \times 2 \times (3 + 4 \times 5!)$

$967 := 12 \times 3^4 - 5$

$968 := (-1 + 23) \times 4 \times (5+6)$

$969 := (1+2)^{3!} + \sqrt{4} \times 5!$

$970 := -1 + 2^{3!} \times 4 - 5 + 6!$

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971 $:= -1+2\times(3!+4\times5!)$

972 $:= 12\times3^4$

973 $:= 1+2\times(3!+4\times5!)$

974 $:= 1\times2\times(3+4+5!)+6!$

975 $:= -1+2^3\times(\sqrt{4}+5!)$

976 $:= \sqrt{1\times2^{3!}}\times(\sqrt{4}+5!)$

977 $:= 12\times3^4+5$

978 $:= 12\times3\times4!+5!-6$

979 $:= (-1+2\times3!)\times4!-5+6!$

980 $:= (1+2\times3!)\times4\times5+6!$

981 $:= -1-2+3!\times4!+5!+6!$

982 $:= -1\times2+3!!+4!\times(5+6)$

983 $:= -1+(2\times3\times4!+5!)+6!$

984 $:= 12\times3\times4!+5!$

985 $:= -1+2+3!\times4!+5!+6!$

986 $:= 1\times2+3!!+4!\times(5+6)$

987 $:= (1+2)!!-3+45\times6$

988 $:= -1\times2+3!\times45+6!$

989 $:= 12^3-4!+5-6!$

990 $:= (-1+23)\times45$

991 $:= -1+2^3\times(4+5!)$

992 $:= 1\times2^3\times(4+5!)$

993 $:= 1+2^3\times(4+5!)$

994 $:= -12\times3+4^5+6$

995 $:= -1\times23+4^5-6$

996 $:= (12+34+5!)\times6$

997 $:= 1+2\times(-3!+4!+5!)+6!$

998 $:= (1\times2+3!)\times(4+5!)+6$

999 $:= 12^3-4-5-6!$

1000 $:= -1\times2+(3+4)!/5-6$

12.2 Crazy Representations: Decreasing Order Ending in 1

1 $:= 1$

2 $:= 2\times1$

3 $:= 2+1$

4 $:= 3+2-1$

5 $:= 3\times2-1$

6 $:= (2+1)!$

7 $:= 3\times2+1$

8 $:= 3^2-1$

9 $:= 3^2\times1$

10 $:= 3^2+1$

11 $:= 3!\times2-1$

12 $:= 3!\times2\times1$

13 $:= 3!\times2+1$

14 $:= (4+3)\times2\times1$

15 $:= -3!+21$

16 $:= 4\times(3+2-1)$

17 $:= (\sqrt{4}-3!)+21$

18 $:= -3+21$

19 $:= 4-3!+21$

20 $:= 4\times(3\times2-1)$

21 $:= 21$

22 $:= 43-21$

23 $:= (3!-2)!-1$

24 $:= 3+21$

25 $:= (3!-2)!+1$

26 $:= \sqrt{4}+3+21$

27 $:= 3!+21$

28 $:= 4+3+21$

29 $:= \sqrt{4^3}+21$

30 $:= -\sqrt{4}+32\times1$

31 $:= 32-1$

32 $:= 32\times1$

33 $:= 32+1$

34 $:= \sqrt{4}+32\times1$

35 $:= 3!^2-1$

36 $:= 3!^2\times1$

37 $:= 3!^2+1$

38 $:= \sqrt{4}+3!^2\times1$

39 $:= 4+3!^2-1$

40 $:= 43-2-1$

41 $:= 43-2\times1$

42 $:= 43-2+1$

43 $:= 4^3-21$

44 $:= 43+2-1$

45 $:= 43+2\times1$

46 $:= 43+2+1$

47 $:= 4\times3!\times2-1$

48 $:= (4+3)^2-1$

49 $:= (4+3)^2\times1$

50 $:= (4+3)^2+1$

51 $:= 4!\times3-21$

52 $:= 4\times(3!\times2+1)$

53 $:= (4!+3)\times2-1$

54 $:= \sqrt{4}\times(3!+21)$

55 $:= 4!+32-1$

56 $:= 4!+32\times1$

57 $:= 4!+32+1$

58 $:= 4^3-(2+1)!$

59 $:= -4+3\times21$

60 $:= 4\times(-3!+21)$

61 $:= 4^3-2-1$

62 $:= 4^3-2\times1$

63 $:= 3\times21$

64 $:= 43+21$

65 $:= 4^3+2-1$

66 $:= 4^3+2\times1$

$\mathbf{67} := 4+3\times 21$
$\mathbf{68} := 5+4^3-2+1$
$\mathbf{69} := 4!\times 3-2-1$
$\mathbf{70} := 4!\times 3-2\times 1$
$\mathbf{71} := 4!\times 3-2+1$
$\mathbf{72} := 4\times(-3+21)$
$\mathbf{73} := 4!\times 3+2-1$
$\mathbf{74} := 4!\times 3+2\times 1$
$\mathbf{75} := 4!\times 3+2+1$
$\mathbf{76} := (-5+43)\times 2\times 1$
$\mathbf{77} := 5-4\times(3-21)$
$\mathbf{78} := 4!\times 3+(2+1)!$
$\mathbf{79} := 5+4!\times 3+2\times 1$
$\mathbf{80} := 5\times 4\times(3+2-1)$
$\mathbf{81} := (4!+3)\times(2+1)$
$\mathbf{82} := -5+43\times 2+1$
$\mathbf{83} := 5\times 4+3\times 21$
$\mathbf{84} := 4!/3!\times 21$
$\mathbf{85} := 43\times 2-1$
$\mathbf{86} := 43\times 2\times 1$
$\mathbf{87} := 43\times 2+1$
$\mathbf{88} := 5^{\sqrt{4}}+3\times 21$
$\mathbf{89} := 54+3!^2-1$
$\mathbf{90} := (4!+3!)\times(2+1)$
$\mathbf{91} := 5+43\times 2\times 1$
$\mathbf{92} := 4\times((3!-2)!-1)$
$\mathbf{93} := 4!\times 3+21$
$\mathbf{94} := 5\times(4!-3-2)-1$
$\mathbf{95} := 4\times(3!-2)!-1$
$\mathbf{96} := 4\times(3+21)$
$\mathbf{97} := 4\times(3!-2)!+1$
$\mathbf{98} := 5+4!\times 3+21$
$\mathbf{99} := 5\times 4\times(3+2)-1$
$\mathbf{100} := (4+3!)^2\times 1$
$\mathbf{101} := (4+3!)^2+1$

$\mathbf{102} := -4!+3!\times 21$
$\mathbf{103} := (54-3)\times 2+1$
$\mathbf{104} := 5!+\sqrt{4}+3-21$
$\mathbf{105} := (\sqrt{4}+3)\times 21$
$\mathbf{106} := 5!+4+3-21$
$\mathbf{107} := 5!+4!/3-21$
$\mathbf{108} := 4\times(3!+21)$
$\mathbf{109} := 5!+4+3!-21$
$\mathbf{110} := 5\times(43-21)$
$\mathbf{111} := 5!-4-3-2\times 1$
$\mathbf{112} := 5!-4-3-2+1$
$\mathbf{113} := (54+3)\times 2-1$
$\mathbf{114} := (\sqrt{4}+3)!-(2+1)!$
$\mathbf{115} := -4+(3+2)!-1$
$\mathbf{116} := -4+(3+2)!\times 1$
$\mathbf{117} := (\sqrt{4}+3)!-2-1$
$\mathbf{118} := (\sqrt{4}+3)!-2\times 1$
$\mathbf{119} := (3+2)!-1$
$\mathbf{120} := (3\times 2-1)!$
$\mathbf{121} := (3+2)!+1$
$\mathbf{122} := -4+3!\times 21$
$\mathbf{123} := 4!\times 3!-21$
$\mathbf{124} := 4\times(32-1)$
$\mathbf{125} := (\sqrt{4}+3)^{2+1}$
$\mathbf{126} := 3!\times 21$
$\mathbf{127} := 4\times 32-1$
$\mathbf{128} := 4\times 32\times 1$
$\mathbf{129} := 43\times(2+1)$
$\mathbf{130} := 4+3!\times 21$
$\mathbf{131} := 5+\sqrt{4}\times 3\times 21$
$\mathbf{132} := 4\times(32+1)$
$\mathbf{133} := 5+4\times 32\times 1$
$\mathbf{134} := 5+4\times 32+1$
$\mathbf{135} := 5+4+3!\times 21$
$\mathbf{136} := 5!-\sqrt{4}-3+21$

$\mathbf{137} := 5+4\times(32+1)$
$\mathbf{138} := 4!\times 3!-(2+1)!$
$\mathbf{139} := 5\times(-4+32)-1$
$\mathbf{140} := 4\times(3!^2-1)$
$\mathbf{141} := (\sqrt{4}+3)!+21$
$\mathbf{142} := 4!\times 3!-2\times 1$
$\mathbf{143} := (4\times 3)^2-1$
$\mathbf{144} := (4\times 3)^2\times 1$
$\mathbf{145} := (4\times 3)^2+1$
$\mathbf{146} := 4!\times 3!+2\times 1$
$\mathbf{147} := (4+3)\times 21$
$\mathbf{148} := 4\times(3!^2+1)$
$\mathbf{149} := 5+(4\times 3)^2\times 1$
$\mathbf{150} := 4!+3!\times 21$
$\mathbf{151} := 5\times 4!+32-1$
$\mathbf{152} := 5+(4+3)\times 21$
$\mathbf{153} := (54-3)\times(2+1)$
$\mathbf{154} := (5!-43)\times 2\times 1$
$\mathbf{155} := 5\times(4+3^{2+1})$
$\mathbf{156} := 5!+4+32\times 1$
$\mathbf{157} := 5!+4+32+1$
$\mathbf{158} := (5!\times 4-3!)/(2+1)$
$\mathbf{159} := 54\times 3-2-1$
$\mathbf{160} := 54\times 3-2\times 1$
$\mathbf{161} := 54\times 3-2+1$
$\mathbf{162} := (4!+3)\times(2+1)!$
$\mathbf{163} := 54\times 3+2-1$
$\mathbf{164} := 54\times 3+2\times 1$
$\mathbf{165} := 4!\times 3!+21$
$\mathbf{166} := 5!+43+2+1$
$\mathbf{167} := 5!+4\times 3!\times 2-1$
$\mathbf{168} := \sqrt{4^3}\times 21$
$\mathbf{169} := 5\times(\sqrt{4}+32)-1$
$\mathbf{170} := 5\times(\sqrt{4}+32\times 1)$
$\mathbf{171} := (54+3)\times(2+1)$

$\mathbf{172} := 5! + 4 \times (3! \times 2 + 1)$
$\mathbf{173} := 54 + (3+2)! - 1$
$\mathbf{174} := 54 + (3+2)! \times 1$
$\mathbf{175} := 5 \times (4 + 32 - 1)$
$\mathbf{176} := 5! + 4! + 32 \times 1$
$\mathbf{177} := (-5 + 4^3) \times (2+1)$
$\mathbf{178} := (5! - \sqrt{4}) \times 3/2 + 1$
$\mathbf{179} := 5 \times (4 + 32) - 1$
$\mathbf{180} := (4! + 3!) \times (2+1)!$
$\mathbf{181} := 543/(2+1)$
$\mathbf{182} := 5! + 4^3 - 2 \times 1$
$\mathbf{183} := 54 \times 3 + 21$
$\mathbf{184} := 5! + 43 + 21$
$\mathbf{185} := 5 \times (4 + 32 + 1)$
$\mathbf{186} := (\sqrt{5+4})! \times (32 - 1)$
$\mathbf{187} := 5! + 4 + 3 \times 21$
$\mathbf{188} := -5 + 4! \times (3! + 2) + 1$
$\mathbf{189} := 54/3! \times 21$
$\mathbf{190} := 5! + 4! \times 3 - 2 \times 1$
$\mathbf{191} := 4! \times (3! + 2) - 1$
$\mathbf{192} := 4^3 \times (2+1)$
$\mathbf{193} := 4! \times (3! + 2) + 1$
$\mathbf{194} := 5 \times 43 - 21$
$\mathbf{195} := 5! + 4! \times 3 + 2 + 1$
$\mathbf{196} := -5 \times 4 + 3!^{2+1}$
$\mathbf{197} := -5! - 4 + 321$
$\mathbf{198} := (\sqrt{5+4})! \times (32 + 1)$
$\mathbf{199} := -5! - \sqrt{4} + 321$
$\mathbf{200} := 5 \times (43 - 2 - 1)$
$\mathbf{201} := -5 \times 4! + 321$
$\mathbf{202} := -6 + 5! \times \sqrt{4} - 32 \times 1$
$\mathbf{203} := -5! + \sqrt{4} + 321$
$\mathbf{204} := 5 \times (43 - 2) - 1$
$\mathbf{205} := 5 \times (43 - 2) \times 1$
$\mathbf{206} := 5 \times (43 - 2) + 1$

$\mathbf{207} := 5! + 43 \times 2 + 1$
$\mathbf{208} := 5! \times \sqrt{4} - 32 \times 1$
$\mathbf{209} := 5 \times 43 - (2+1)!$
$\mathbf{210} := (4 + 3!) \times 21$
$\mathbf{211} := -5 + 4! \times 3 \times (2+1)$
$\mathbf{212} := -4 + 3!^{2+1}$
$\mathbf{213} := 5 \times 43 - 2 \times 1$
$\mathbf{214} := -\sqrt{4} + 3!^{2+1}$
$\mathbf{215} := 4! \times 3^2 - 1$
$\mathbf{216} := 3!^{2+1}$
$\mathbf{217} := 4! \times 3^2 + 1$
$\mathbf{218} := \sqrt{4} + 3!^{2+1}$
$\mathbf{219} := 5! \times (-4 + 3!) - 21$
$\mathbf{220} := 4 + 3!^{2+1}$
$\mathbf{221} := 5 \times 43 + (2+1)!$
$\mathbf{222} := 5! \times \sqrt{4} + 3 - 21$
$\mathbf{223} := (5 + \sqrt{4}) \times 32 - 1$
$\mathbf{224} := 5 \times (43 + 2) - 1$
$\mathbf{225} := 5 \times (43 + 2) \times 1$
$\mathbf{226} := 5 \times (43 + 2) + 1$
$\mathbf{227} := (5! - \sqrt{4} \times 3) \times 2 - 1$
$\mathbf{228} := (-5 + 43) \times (2+1)!$
$\mathbf{229} := (5! - \sqrt{4} \times 3) \times 2 + 1$
$\mathbf{230} := 5 \times (43 + 2 + 1)$
$\mathbf{231} := (5! - 43) \times (2+1)$
$\mathbf{232} := (-4! + 3!!)/(2+1)$
$\mathbf{233} := 5! \times \sqrt{4} - 3 \times 2 - 1$
$\mathbf{234} := 5! \times \sqrt{4} - 3 \times 2 \times 1$
$\mathbf{235} := 5! \times \sqrt{4} - 3 \times 2 + 1$
$\mathbf{236} := -4 + 3!!/(2+1)$
$\mathbf{237} := (5! - 4 + 3) \times 2 - 1$
$\mathbf{238} := \sqrt{4} \times ((3+2)! - 1)$
$\mathbf{239} := \sqrt{4} \times (3+2)! - 1$
$\mathbf{240} := 3!!/(2+1)$
$\mathbf{241} := \sqrt{4} \times (3+2)! + 1$

$\mathbf{242} := \sqrt{4} \times ((3+2)! + 1)$
$\mathbf{243} := (5! + 4 - 3) \times 2 + 1$
$\mathbf{244} := 4 + 3!!/(2+1)$
$\mathbf{245} := 5! \times \sqrt{4} + 3 \times 2 - 1$
$\mathbf{246} := 5 \times 4! + 3! \times 21$
$\mathbf{247} := -5 + 4 \times 3 \times 21$
$\mathbf{248} := (4! + 3!!)/(2+1)$
$\mathbf{249} := 5! + 43 \times (2+1)$
$\mathbf{250} := 5 \times ((4+3)^2 + 1)$
$\mathbf{251} := -5 + 4^{3+2-1}$
$\mathbf{252} := 4 \times 3 \times 21$
$\mathbf{253} := -5 + 43 \times (2+1)!$
$\mathbf{254} := (5! + 4 + 3) \times 2 \times 1$
$\mathbf{255} := 4^{3!-2} - 1$
$\mathbf{256} := 4^{3+2-1}$
$\mathbf{257} := 4^{3!-2} + 1$
$\mathbf{258} := 43 \times (2+1)!$
$\mathbf{259} := (5! + 4 + 3!) \times 2 - 1$
$\mathbf{260} := 5 \times 4 \times (3! \times 2 + 1)$
$\mathbf{261} := (5 + 4!) \times 3 \times (2+1)$
$\mathbf{262} := (5 + 4!) \times 3^2 + 1$
$\mathbf{263} := 5! + 4! + (3+2)! - 1$
$\mathbf{264} := 4! \times (3! \times 2 - 1)$
$\mathbf{265} := 5! + (4 \times 3)^2 + 1$
$\mathbf{266} := 5^4 - 3!!/2 + 1$
$\mathbf{267} := -54 + 321$
$\mathbf{268} := 5! + 4 \times (3!^2 + 1)$
$\mathbf{269} := 54 \times (3+2) - 1$
$\mathbf{270} := 54 \times (3 + 2 \times 1)$
$\mathbf{271} := 54 \times (3+2) + 1$
$\mathbf{272} := (5! - 4! + 3!!)/(2+1)$
$\mathbf{273} := 5! \times \sqrt{4} + (32 + 1)$
$\mathbf{274} := 6! - 5 - (4! - 3)^2 \times 1$
$\mathbf{275} := 5 \times (4! + 32 - 1)$
$\mathbf{276} := 5! \times \sqrt{4} + 3!^2 \times 1$

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$\mathbf{277} := (-5+4!\times 3!)\times 2-1$

$\mathbf{278} := (-5+4!\times 3!)\times 2\times 1$

$\mathbf{279} := (5+4)\times (32-1)$

$\mathbf{280} := 5\times (4!+32)\times 1$

$\mathbf{281} := 5\times (4!+32)+1$

$\mathbf{282} := 5!+(4!+3)\times (2+1)!$

$\mathbf{283} := -5+4!\times (3!+(2+1)!)$

$\mathbf{284} := -5+4!\times 3!\times 2+1$

$\mathbf{285} := 5\times (4!+32+1)$

$\mathbf{286} := (5!-4!)\times 3-2\times 1$

$\mathbf{287} := 4!\times 3!\times 2-1$

$\mathbf{288} := 4!\times 3!\times 2\times 1$

$\mathbf{289} := 4!\times 3!\times 2+1$

$\mathbf{290} := (5+4\times 3)^2+1$

$\mathbf{291} := -5!/4+321$

$\mathbf{292} := -5-4!+321$

$\mathbf{293} := (5!+4!+3)\times 2-1$

$\mathbf{294} := (5!+4!+3)\times 2\times 1$

$\mathbf{295} := 5\times (-4+3\times 21)$

$\mathbf{296} := -\sqrt{5^4}+321$

$\mathbf{297} := -4!+321$

$\mathbf{298} := (5+4!\times 3!)\times 2\times 1$

$\mathbf{299} := 5\times 4^3-21$

$\mathbf{300} := 5\times (4+3!)\times (2+1)!$

$\mathbf{301} := -5\times 4+321$

$\mathbf{302} := 5-4!+321$

$\mathbf{303} := 54\times 3!-21$

$\mathbf{304} := 5^4-321$

$\mathbf{305} := 5\times (4^3-2-1)$

$\mathbf{306} := (54-3)\times (2+1)!$

$\mathbf{307} := -54+3!!/2+1$

$\mathbf{308} := (6+5)\times 4\times (3\times 2+1)$

$\mathbf{309} := 5\times (4^3-2)-1$

$\mathbf{310} := 5\times \sqrt{4}\times (32-1)$

$\mathbf{311} := 5\times (4^3-2)+1$

$\mathbf{312} := -5-4+321$

$\mathbf{313} := -5!+432+1$

$\mathbf{314} := -5-\sqrt{4}+321$

$\mathbf{315} := (5+4+3!)\times 21$

$\mathbf{316} := -\sqrt{\sqrt{5^4}}+321$

$\mathbf{317} := -4+321$

$\mathbf{318} := -5+\sqrt{4}+321$

$\mathbf{319} := -\sqrt{4}+321$

$\mathbf{320} := 5\times (43+21)$

$\mathbf{321} := 321$

$\mathbf{322} := 5-4+321$

$\mathbf{323} := \sqrt{4}+321$

$\mathbf{324} := (4!-3!)^2\times 1$

$\mathbf{325} := 4+321$

$\mathbf{326} := (5!+43)\times 2\times 1$

$\mathbf{327} := (5!-4)\times 3-21$

$\mathbf{328} := (5+\sqrt{4})+321$

$\mathbf{329} := 5\times (4^3+2)-1$

$\mathbf{330} := 5+4+321$

$\mathbf{331} := 5\times \sqrt{4}+321$

$\mathbf{332} := 5!-4+3!^{2+1}$

$\mathbf{333} := (5+4)\times (3!^2+1)$

$\mathbf{334} := 5!-\sqrt{4}+3!^{2+1}$

$\mathbf{335} := -4!+3!!/2-1$

$\mathbf{336} := -4!+3!!/2\times 1$

$\mathbf{337} := -4!+3!!/2+1$

$\mathbf{338} := -5+(4+3)^{2+1}$

$\mathbf{339} := -5\times 4+3!!/2-1$

$\mathbf{340} := -5+4!+321$

$\mathbf{341} := 5\times 4+321$

$\mathbf{342} := (54+3)\times (2+1)!$

$\mathbf{343} := (4+3)^{2+1}$

$\mathbf{344} := (5+\sqrt{4})^3+2-1$

$\mathbf{345} := 4!+321$

$\mathbf{346} := \sqrt{5^4}+321$

$\mathbf{347} := (-4!+3!!)/2-1$

$\mathbf{348} := (-4!+3!!)/2\times 1$

$\mathbf{349} := (-4!+3!!)/2+1$

$\mathbf{350} := 5+4!+321$

$\mathbf{351} := 5!/4+321$

$\mathbf{352} := -5+(-4+3!!)/2-1$

$\mathbf{353} := -5+(-4+3!!)/2\times 1$

$\mathbf{354} := -5+(-4+3!!)/2+1$

$\mathbf{355} := -4+3!!/2-1$

$\mathbf{356} := -4+3!!/2\times 1$

$\mathbf{357} := (-4+3!!)/2-1$

$\mathbf{358} := (-4+3!!)/2\times 1$

$\mathbf{359} := 3!!/2-1$

$\mathbf{360} := 3!!/2\times 1$

$\mathbf{361} := 3!!/2+1$

$\mathbf{362} := (4+3!!)/2\times 1$

$\mathbf{363} := 4+3!!/2-1$

$\mathbf{364} := 4+3!!/2\times 1$

$\mathbf{365} := 4+3!!/2+1$

$\mathbf{366} := 5+\sqrt{4}+3!!/2-1$

$\mathbf{367} := 5+\sqrt{4}+3!!/2\times 1$

$\mathbf{368} := 5+\sqrt{4}+3!!/2+1$

$\mathbf{369} := (5!-4)\times 3+21$

$\mathbf{370} := 5+4+3!!/2+1$

$\mathbf{371} := (4!+3!!)/2-1$

$\mathbf{372} := (4!+3!!)/2\times 1$

$\mathbf{373} := (4!+3!!)/2+1$

$\mathbf{374} := (5!+4)\times 3+2\times 1$

$\mathbf{375} := 54+321$

$\mathbf{376} := 5!+4^{3!-2}\times 1$

$\mathbf{377} := 5!+4^{3!-2}+1$

$\mathbf{378} := (4!-3!)\times 21$

$\mathbf{379} := -5+4!+3!!/2\times 1$

$\mathbf{380} := -5+4!+3!!/2+1$

$\mathbf{381} := (5!+4+3)\times (2+1)$

382 $:= 65-4+321$

383 $:= 4!+3!!/2-1$

384 $:= 4^3\times(2+1)!$

385 $:= 4!+3!!/2+1$

386 $:= 5^{\sqrt{4}}+3!!/2+1$

387 $:= (5!+\sqrt{4})\times 3+21$

388 $:= 5+4!+3!!/2-1$

389 $:= 5+4!+3!!/2\times 1$

390 $:= 5+4!+3!!/2+1$

391 $:= (5!/\sqrt{4}+3!!)/2+1$

392 $:= -5!+\sqrt{4^{3\times(2+1)}}$

393 $:= (5!+4)\times 3+21$

394 $:= -6\times 54+3!!-2\times 1$

395 $:= 6+5+4^3\times(2+1)!$

396 $:= -54\times 3!+(2+1)!!$

397 $:= 6!/(5\times 4)+3!!/2+1$

398 $:= 6!-5+4-321$

399 $:= (-5+4\times 3!)\times 21$

400 $:= (5\times 4)^{3-2+1}$

401 $:= (5\times 4!/3!)^2+1$

402 $:= (-5+4!\times 3)\times(2+1)!$

403 $:= 6\times 5!+4-321$

404 $:= 6!+5!/4!-321$

405 $:= 5\times(4!+3)\times(2+1)$

406 $:= 6!-(5^4+3)/2\times 1$

407 $:= 5!+4!\times 3!\times 2-1$

408 $:= 5!+4!\times(3!+(2+1)!)$

409 $:= 5!+4!\times 3!\times 2+1$

410 $:= 65+4!+321$

411 $:= (5!+4!)\times 3-21$

412 $:= (65+4)\times 3!-2\times 1$

413 $:= 54+3!!/2-1$

414 $:= 54+3!!/2\times 1$

415 $:= 54+3!!/2+1$

416 $:= 6!-5^4+321$

417 $:= 5!\times 4-3\times 21$

418 $:= (5!-\sqrt{4}+3!!)/2-1$

419 $:= 5!\times(4+3)/2-1$

420 $:= 5\times(-\sqrt{4}+3!)\times 21$

421 $:= 5!/\sqrt{4}+3!!/2+1$

422 $:= (5!+4+3!!)/2\times 1$

423 $:= (5!+4!-3)\times(2+1)$

424 $:= (-6+5!)\times 4-32\times 1$

425 $:= 5\times(43\times 2-1)$

426 $:= -5+432-1$

427 $:= -5+432\times 1$

428 $:= -5+432+1$

429 $:= 5\times 43\times 2-1$

430 $:= 5\times 43\times 2\times 1$

431 $:= 432-1$

432 $:= 432\times 1$

433 $:= 432+1$

434 $:= (5!+4!)\times 3+2\times 1$

435 $:= 5\times(43\times 2+1)$

436 $:= 5+432-1$

437 $:= 5+432\times 1$

438 $:= 5+432+1$

439 $:= 5!-\sqrt{4}+321$

440 $:= (4!-3)^2-1$

441 $:= (4!-3)\times 21$

442 $:= (4!-3)^2+1$

443 $:= 5!+\sqrt{4}+321$

444 $:= 5!+(4!-3!)^2\times 1$

445 $:= 5!+4+321$

446 $:= 5+(4!-3)\times 21$

447 $:= 5!\times 4-32-1$

448 $:= 5!\times 4-32\times 1$

449 $:= 5!\times 4-32+1$

450 $:= (5!+4!+3!)\times(2+1)$

451 $:= -5+4!\times\sqrt{3!!/2+1}$

452 $:= (6+5)\times 43-21$

453 $:= 5!\times 4-3^{2+1}$

454 $:= -6\times 5+4\times((3+2)!+1)$

455 $:= -5!+(4\times 3!)^2-1$

456 $:= 4!\times\sqrt{3!!/2+1}$

457 $:= 5!\times 4-(3!-2)!+1$

458 $:= 65\times(4+3)+2+1$

459 $:= -5!\times\sqrt{4}+3!!-21$

460 $:= 5\times 4\times((3!-2)!-1)$

461 $:= 5!\times 4-\sqrt{3!!/2+1}$

462 $:= 5!\times 4+3-21$

463 $:= 5!+(4+3)^{2+1}$

464 $:= (5!-4)\times(3+2-1)$

465 $:= 5!+4!+321$

466 $:= (-6+5!)\times 4+3^2+1$

467 $:= 5!\times 4-3!\times 2-1$

468 $:= 5!\times 4-3!\times 2\times 1$

469 $:= 5!\times 4-3!\times 2+1$

470 $:= 5!\times 4-3^2-1$

471 $:= 5!\times 4-3!-2-1$

472 $:= 5!\times 4-3^2+1$

473 $:= 5!\times 4-3\times 2-1$

474 $:= 5!\times 4-3-2-1$

475 $:= 5!\times 4-3-2\times 1$

476 $:= 4\times((3+2)!-1)$

477 $:= 5!\times 4-3!+2+1$

478 $:= 5!\times 4-3+2-1$

479 $:= 4\times(3+2)!-1$

480 $:= 4\times(3+2)!\times 1$

481 $:= 4\times(3+2)!+1$

482 $:= -5!\times\sqrt{4}+3!!+2\times 1$

483 $:= (5\times 4+3)\times 21$

484 $:= 4\times((3+2)!+1)$

485 $:= 54\times 3^2-1$

486 $:= 54\times 3^2\times 1$

487 $:= 54 \times 3^2 + 1$

488 $:= 5! \times 4 + 3^2 - 1$

489 $:= 5 + 4 \times ((3+2)! + 1)$

490 $:= 5! \times 4 + (3^2 + 1)$

491 $:= 5! \times 4 + 3! \times 2 - 1$

492 $:= 5! \times 4 + 3! \times 2 \times 1$

493 $:= 5! \times 4 + 3! \times 2 + 1$

494 $:= (6+5) \times 43 + 21$

495 $:= (5! + 4) \times (3! - 2) - 1$

496 $:= (5! + 4) \times (3 + 2 - 1)$

497 $:= (5! + 4) \times (3! - 2) + 1$

498 $:= 5! \times 4 - 3 + 21$

499 $:= 5^4 - 3! \times 21$

500 $:= 5 \times (4 + 3!)^2 \times 1$

501 $:= 5! \times (-\sqrt{4} + 3!) + 21$

502 $:= -65 + (4! + 3) \times 21$

503 $:= 5! \times 4 + (3! - 2)! - 1$

504 $:= 4 \times 3! \times 21$

505 $:= 5^4 - (3+2)! \times 1$

506 $:= 5^4 - (3+2)! + 1$

507 $:= 5! \times 4 + 3^{(2+1)}$

508 $:= -5 + \sqrt{4^{3^2}} + 1$

509 $:= 5 + 4 \times 3! \times 21$

510 $:= 5 \times (-4! + 3! \times 21)$

511 $:= \sqrt{4^{3^2}} - 1$

512 $:= \sqrt{4^{3^2}} \times 1$

513 $:= \sqrt{4^{3^2}} + 1$

514 $:= (65 \times 4 - 3) \times 2 \times 1$

515 $:= 5! \times 4 + 3!^2 - 1$

516 $:= 5! \times 4 + 3!^2 \times 1$

517 $:= 5! \times 4 + 3!^2 + 1$

518 $:= 5 + \sqrt{4^{3^2}} + 1$

519 $:= 6 \times (-5!/4) + 3!! - 21$

520 $:= 65 \times \sqrt{43 + 21}$

521 $:= 6! + 5! + \sqrt{4} - 321$

522 $:= 543 - 21$

523 $:= 65 \times \sqrt{4^3} + 2 + 1$

524 $:= 6 \times (5 + 4!) \times 3 + 2 \times 1$

525 $:= 5 \times (\sqrt{4} + 3) \times 21$

526 $:= 65 \times \sqrt{4^3} + (2+1)!$

527 $:= (5! + 4! \times 3!) \times 2 - 1$

528 $:= (5 \times 4 + 3)^2 - 1$

529 $:= (5 \times 4 + 3)^2 \times 1$

530 $:= (5 \times 4 + 3)^2 + 1$

531 $:= (6! + 5!)/4 + 321$

532 $:= 6! + 5 - 4! \times (3! + 2) - 1$

533 $:= (65 + 4!) \times 3 \times 2 - 1$

534 $:= -6 + 543 - 2 - 1$

535 $:= -6 + 543 - 2 \times 1$

536 $:= -5! - 4^3 + (2+1)!!$

537 $:= 543 - (2+1)!$

538 $:= -6 + 543 + 2 - 1$

539 $:= 5!/\sqrt{4} \times 3^2 - 1$

540 $:= 543 - 2 - 1$

541 $:= 543 - 2 \times 1$

542 $:= 543 - 2 + 1$

543 $:= 543 \times (2 - 1)$

544 $:= 543 + 2 - 1$

545 $:= 543 + 2 \times 1$

546 $:= 543 + 2 + 1$

547 $:= -5 + 4! \times ((3! - 2)! - 1)$

548 $:= 6 + 543 - 2 + 1$

549 $:= 543 + (2+1)!$

550 $:= 6 + 543 + 2 - 1$

551 $:= 5! + 432 - 1$

552 $:= 4! \times ((3! - 2)! - 1)$

553 $:= 5! + 432 + 1$

554 $:= 6! - 5! - 43 - 2 - 1$

555 $:= (5! - 4!) \times 3! - 21$

556 $:= -6 + 5^4 - 3 \times 21$

557 $:= -5! - 43 + (2+1)!!$

558 $:= (5! - 4! - 3) \times (2+1)!$

559 $:= 6 + 5! + 432 + 1$

560 $:= 5! + (4! - 3)^2 - 1$

561 $:= 5! + (4! - 3) \times 21$

562 $:= 5^4 - 3 \times 21$

563 $:= 6! - 5! \times 4/3 + 2 + 1$

564 $:= 543 + 21$

565 $:= -6 - 5 + (4 \times 3!)^2 \times 1$

566 $:= 6! - 5! - \sqrt{4} - 32 \times 1$

567 $:= (4! + 3) \times 21$

568 $:= 6! - 5 - (4+3) \times 21$

569 $:= 6! - 5 \times 4! - 32 + 1$

570 $:= (-5^4 + 3!!) \times (2+1)!$

571 $:= -5 + 4! \times (3 + 2 - 1)!$

572 $:= 5 + (4! + 3) \times 21$

573 $:= -5! - 4! + 3!! - 2 - 1$

574 $:= -5! - 4! + 3!! - 2 \times 1$

575 $:= (4 \times 3!)^2 - 1$

576 $:= 4! \times (3 + 21)$

577 $:= (4 \times 3!)^2 + 1$

578 $:= -5! - 4! + 3!! + 2 \times 1$

579 $:= 5 \times (-4 + (3+2)!) - 1$

580 $:= (5! - 4) \times (3 \times 2 - 1)$

581 $:= 5 \times (-4 + (3+2)!) + 1$

582 $:= (5! - 4!) \times 3! + (2+1)!$

583 $:= -5! + 4 + 3!! - 21$

584 $:= 6!/5 + (4! - 3)^2 - 1$

585 $:= 5 \times (-4 + (3+2)! + 1)$

586 $:= -6 + 5^4 - 32 - 1$

587 $:= 6! - 5! - 4 - 3^2 \times 1$

588 $:= (\sqrt{5^4} + 3) \times 21$

589 $:= 5^4 - 3!^2 \times 1$

590 $:= 5^4 - 3!^2 + 1$

591 $:= (5! - \sqrt{4}) \times (3+2) + 1$

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$\mathbf{592} := 5^4 - 32 - 1$

$\mathbf{593} := 5^4 - 32 \times 1$

$\mathbf{594} := 5^4 - 32 + 1$

$\mathbf{595} := -5! - 4 + 3!! - 2 + 1$

$\mathbf{596} := -5! + \sqrt{4} + 3!! - (2+1)!$

$\mathbf{597} := 5 \times (\sqrt{4} + 3)! - 2 - 1$

$\mathbf{598} := 5^4 - 3! - 21$

$\mathbf{599} := 5 \times 4! \times (3+2) - 1$

$\mathbf{600} := 4! \times ((3!-2)! + 1)$

$\mathbf{601} := 5^4 - 3 - 21$

$\mathbf{602} := -5! + (\sqrt{4} \times 3)! + 2 \times 1$

$\mathbf{603} := 5 \times (\sqrt{4} + 3)! + 2 + 1$

$\mathbf{604} := -5! + 4 + (3 \times 2)! \times 1$

$\mathbf{605} := 5 \times ((\sqrt{4} + 3)! + 2 - 1)$

$\mathbf{606} := -5! + 4 + 3!! + 2 \times 1$

$\mathbf{607} := 5^4 + 3 - 21$

$\mathbf{608} := -5! + \sqrt{4} + 3!! + (2+1)!$

$\mathbf{609} := 5 \times ((\sqrt{4} + 3)! + 2) - 1$

$\mathbf{610} := 5^4 + 3! - 21$

$\mathbf{611} := 5 \times ((\sqrt{4} + 3)! + 2) + 1$

$\mathbf{612} := -5! + 4 \times 3 + (2+1)!!$

$\mathbf{613} := 5^4 - 3! - (2+1)!$

$\mathbf{614} := 5^4 - 3! \times 2 + 1$

$\mathbf{615} := 5^4 - 3^2 - 1$

$\mathbf{616} := 5^4 - 3^2 \times 1$

$\mathbf{617} := 5^4 - 3^2 + 1$

$\mathbf{618} := 5^4 - 3 \times 2 - 1$

$\mathbf{619} := 5^4 - 3 - 2 - 1$

$\mathbf{620} := 5 \times 4 \times (32 - 1)$

$\mathbf{621} := 5^4 - 3 - 2 + 1$

$\mathbf{622} := 5^4 - 3 \times (2 - 1)$

$\mathbf{623} := 5^4 - 3 + 2 - 1$

$\mathbf{624} := 5^4 - 3/(2+1)$

$\mathbf{625} := 5^4 \times 3/(2+1)$

$\mathbf{626} := 5^4 + 3/(2+1)$

$\mathbf{627} := 5^4 + 3 - 2 + 1$

$\mathbf{628} := 5^4 + 3 \times (2 - 1)$

$\mathbf{629} := 5^4 + 3 + 2 - 1$

$\mathbf{630} := (4! + 3!) \times 21$

$\mathbf{631} := 5^4 + 3 + 2 + 1$

$\mathbf{632} := 5! + \sqrt{4^{3 \times (2+1)}}$

$\mathbf{633} := 5^4 + 3! + 2 \times 1$

$\mathbf{634} := 5^4 + 3^2 \times 1$

$\mathbf{635} := 5 \times (4 \times 32 - 1)$

$\mathbf{636} := 5^4 + 3! \times 2 - 1$

$\mathbf{637} := -5 + \sqrt{4} \times 321$

$\mathbf{638} := 5^4 + 3! \times 2 + 1$

$\mathbf{639} := 5 \times 4 \times 32 - 1$

$\mathbf{640} := 5 \times 4 \times 32 \times 1$

$\mathbf{641} := 5 \times 4 \times 32 + 1$

$\mathbf{642} := \sqrt{4} \times 321$

$\mathbf{643} := 654 - 3! \times 2 + 1$

$\mathbf{644} := 5^4 + \sqrt{3!!/2 + 1}$

$\mathbf{645} := 5 \times 43 \times (2+1)$

$\mathbf{646} := 5^{4!/3!} + 21$

$\mathbf{647} := 5 + \sqrt{4} \times 321$

$\mathbf{648} := 4! \times (3! + 21)$

$\mathbf{649} := 5^4 + 3 + 21$

$\mathbf{650} := 5 \times (4 + 3! \times 21)$

$\mathbf{651} := -5 - 4^3 + (2+1)!!$

$\mathbf{652} := 5^4 + 3! + 21$

$\mathbf{653} := 5 - 4! \times 3 + (2+1)!!$

$\mathbf{654} := -5!/\sqrt{4} + 3!! - (2+1)!$

$\mathbf{655} := 654 + 3 - 2 \times 1$

$\mathbf{656} := -4^3 + (2+1)!!$

$\mathbf{657} := 5^4 + 32 \times 1$

$\mathbf{658} := 5^4 + 32 + 1$

$\mathbf{659} := -5!/\sqrt{4} + 3!! - 2 + 1$

$\mathbf{660} := 5 \times 4 \times (32 + 1)$

$\mathbf{661} := 5^4 + 3!^2 \times 1$

$\mathbf{662} := 5^4 + 3!^2 + 1$

$\mathbf{663} := -54 + 3!! - 2 - 1$

$\mathbf{664} := -54 + 3!! - 2 \times 1$

$\mathbf{665} := -54 + 3!! - 2 + 1$

$\mathbf{666} := -54 + (3 \times 2)! \times 1$

$\mathbf{667} := -54 + (3 \times 2)! + 1$

$\mathbf{668} := -54 + 3!! + 2 \times 1$

$\mathbf{669} := -54 + 3!! + 2 + 1$

$\mathbf{670} := -5 - 4! + 3!! - 21$

$\mathbf{671} := 6! - 54 + 3 \times 2 - 1$

$\mathbf{672} := -5 - 43 + (2+1)!!$

$\mathbf{673} := 6! - 5! + 4! \times 3 + 2 - 1$

$\mathbf{674} := -5^{\sqrt{4}} + 3!! - 21$

$\mathbf{675} := -4! + 3!! - 21$

$\mathbf{676} := (5 + 4! - 3)^2 \times 1$

$\mathbf{677} := -43 + (2+1)!!$

$\mathbf{678} := -(5 + \sqrt{4}) \times 3! + (2+1)!!$

$\mathbf{679} := -5 \times 4 + 3!! - 21$

$\mathbf{680} := 5 - 4! + 3!! - 21$

$\mathbf{681} := -5!/\sqrt{4} + 3!! + 21$

$\mathbf{682} := 5 - 43 + (2+1)!!$

$\mathbf{683} := (-5 + 4!) \times 3!^2 - 1$

$\mathbf{684} := (-5 + 4!) \times 3!^2 \times 1$

$\mathbf{685} := -5 - 4! - 3! + (2+1)!!$

$\mathbf{686} := (5 + \sqrt{4})^3 \times 2 \times 1$

$\mathbf{687} := 5! + (4! + 3) \times 21$

$\mathbf{688} := 5^4 + 3 \times 21$

$\mathbf{689} := -5!/4 + 3!! - 2 + 1$

$\mathbf{690} := -4! + 3!! - (2+1)!$

$\mathbf{691} := -5 - 4! + (3 + 2 + 1)!$

$\mathbf{692} := -5 - 4! + (3 \times 2)! + 1$

$\mathbf{693} := -4! + 3!! - 2 - 1$

$\mathbf{694} := -4! + 3!! - 2 \times 1$

$\mathbf{695} := -4 + 3!! - 21$

$\mathbf{696} := -4! + (3 \times 2)! \times 1$

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Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

697 $:= -4! + (3 \times 2)! + 1$
698 $:= -4! + 3!! + 2 \times 1$
699 $:= 3!! - 21$
700 $:= 5 \times 4 \times (3!^2 - 1)$
701 $:= \sqrt{4} + 3!! - 21$
702 $:= -4! + 3!! + (2+1)!$
703 $:= 4 + 3!! - 21$
704 $:= 5 + (\sqrt{4} \times 3)! - 21$
705 $:= -4! + 3^{(2+1)!}$
706 $:= -\sqrt{5! + 4!} + 3!! - 2 \times 1$
707 $:= -5 \times \sqrt{4} + 3!! - 2 - 1$
708 $:= -4 \times 3 + (2+1)!!$
709 $:= -5 - 4 + 3!! - 2 \times 1$
710 $:= -4 - 3! + (2+1)!!$
711 $:= (5! + \sqrt{4}) \times 3! - 21$
712 $:= -\sqrt{4^3} + (2+1)!!$
713 $:= -4 + 3!! - 2 - 1$
714 $:= 3!! - (2+1)!$
715 $:= -4 + (3 \times 2)! - 1$
716 $:= -4 + (3 \times 2 \times 1)!$
717 $:= 3!! - 2 - 1$
718 $:= 3!! - 2 \times 1$
719 $:= (3 \times 2)! - 1$
720 $:= (2+1)!!$
721 $:= (3 \times 2)! + 1$
722 $:= 3!! + 2 \times 1$
723 $:= 3!! + 2 + 1$
724 $:= 4 + (3 \times 2 \times 1)!$
725 $:= 4 + (3 \times 2)! + 1$
726 $:= 3!! + (2+1)!$
727 $:= 4 + 3 + (2+1)!!$
728 $:= (4! + 3)^2 - 1$
729 $:= 3^{(2+1)!}$
730 $:= (4! + 3)^2 + 1$
731 $:= \sqrt{4} + 3^{(2+1)!}$

732 $:= 4 \times 3 + (2+1)!!$
733 $:= 4 + 3^{(2+1)!}$
734 $:= 5 \times 4 - 3! + (2+1)!!$
735 $:= 5 \times (4+3) \times 21$
736 $:= 5 \times \sqrt{4} + 3!! + (2+1)!$
737 $:= -4 + 3!! + 21$
738 $:= 4! - 3! + (2+1)!!$
739 $:= -\sqrt{4} + 3!! + 21$
740 $:= 5 \times 4 \times (3!^2 + 1)$
741 $:= 3!! + 21$
742 $:= 4! + 3!! - 2 \times 1$
743 $:= 4! + (3 \times 2)! - 1$
744 $:= 4! \times (32 - 1)$
745 $:= 4 + 3!! + 21$
746 $:= 4! + 3!! + 2 \times 1$
747 $:= 4! + 3 + (2+1)!!$
748 $:= -5 + 4! + 3^{(2+1)!}$
749 $:= 5 + 4! \times (32 - 1)$
750 $:= 4! + 3! + (2+1)!!$
751 $:= 5!/4 + (3 \times 2)! + 1$
752 $:= 5 + 4! + 3 + (2+1)!!$
753 $:= 4! + 3^{(2+1)!}$
754 $:= \sqrt{5^4} + 3^{(2+1)!}$
755 $:= 5 + 4! + 3!! + (2+1)!$
756 $:= (5 - \sqrt{4})! \times 3! \times 21$
757 $:= (5 - \sqrt{4})!! + 3!^2 + 1$
758 $:= 5 + 4! + 3^{(2+1)!}$
759 $:= 5!/\sqrt{4} + 3!! - 21$
760 $:= -5 + 4! + 3!! + 21$
761 $:= 5 \times 4 + 3!! + 21$
762 $:= -5 + 4! \times 32 - 1$
763 $:= 43 + (2+1)!!$
764 $:= -5 + 4! \times 32 + 1$
765 $:= 4! + 3!! + 21$
766 $:= \sqrt{5^4} + 3!! + 21$

767 $:= 4! \times 32 - 1$
768 $:= 4! \times 32 \times 1$
769 $:= 4! \times 32 + 1$
770 $:= 5 + 4! + 3!! + 21$
771 $:= 54 + 3!! - 2 - 1$
772 $:= 5 + 4! \times 32 - 1$
773 $:= 5 + 4! \times 32 \times 1$
774 $:= 54 + (3 \times 2)! \times 1$
775 $:= 5^{\sqrt{4}} \times (32 - 1)$
776 $:= 54 + 3!! + 2 \times 1$
777 $:= 54 + 3!! + 2 + 1$
778 $:= 5!/\sqrt{4} + 3!! - 2 \times 1$
779 $:= 5!/\sqrt{4} + (3 \times 2)! - 1$
780 $:= (5! + 4 + 3!) \times (2+1)!$
781 $:= 5!/\sqrt{4} + (3 \times 2)! + 1$
782 $:= 5!/\sqrt{4} + 3!! + 2 \times 1$
783 $:= 54 + 3^{(2+1)!}$
784 $:= 4^3 + (2+1)!!$
785 $:= (\sqrt{5^4} + 3)^2 + 1$
786 $:= 5!/\sqrt{4} + 3!! + (2+1)!$
787 $:= -5 + 4! \times 3 + (2+1)!!$
788 $:= 65 + 4! + 3!! - 21$
789 $:= 5 + 4^3 + (2+1)!!$
790 $:= 65 + 4 + 3!! + 2 - 1$
791 $:= 6! + 5! - 43 - (2+1)!$
792 $:= 4! \times (32 + 1)$
793 $:= (65 - 4) \times (3! \times 2 + 1)$
794 $:= 6! + 5! - 43 - 2 - 1$
795 $:= 54 + 3!! + 21$
796 $:= 6! + 5 + 4! \times 3!/2 - 1$
797 $:= 5! - 43 + (2+1)!!$
798 $:= (-5 + 43) \times 21$
799 $:= \sqrt{5^4} \times 32 - 1$
800 $:= 5^{\sqrt{4}} \times 32 \times 1$
801 $:= 5! \times 4 + 321$

$\mathbf{802} := 6! + 5! - \sqrt{4} - 3!^2 \times 1$

$\mathbf{803} := 6! + 5 \times 4 + 3 \times 21$

$\mathbf{804} := 6 - (5 - 43) \times 21$

$\mathbf{805} := 6! + 54 + 32 - 1$

$\mathbf{806} := 6! + 54 + 32 \times 1$

$\mathbf{807} := (5 + 4!) \times 3 + (2 + 1)!!$

$\mathbf{808} := -6 + 5! - 4! + 3!! - 2 \times 1$

$\mathbf{809} := 6! + 54 + 3!^2 - 1$

$\mathbf{810} := 54 \times (-3! + 21)$

$\mathbf{811} := 6! - 5 + 4 \times (3 + 21)$

$\mathbf{812} := (5! - 4) \times (3! + 2 - 1)$

$\mathbf{813} := 5! - 4! + 3!! - 2 - 1$

$\mathbf{814} := 5! - 4! + 3!! - 2 \times 1$

$\mathbf{815} := 5! - 4! + 3!! - 2 + 1$

$\mathbf{816} := 5! - 4! + (3 + 2 + 1)!$

$\mathbf{817} := 5! - 4! + 3!! + 2 - 1$

$\mathbf{818} := 5! - 4! + 3!! + 2 \times 1$

$\mathbf{819} := 5! + (\sqrt{4} \times 3)! - 21$

$\mathbf{820} := 6! + 5 \times 4 \times (3 + 2 \times 1)$

$\mathbf{821} := 5! + \sqrt{4} + 3!! - 21$

$\mathbf{822} := 5! - 4! + 3!! + (2 + 1)!$

$\mathbf{823} := 5! + 4 + 3!! - 21$

$\mathbf{824} := 6! + 5! - 4!/3 \times 2 \times 1$

$\mathbf{825} := 5 \times (4! \times 3! + 21)$

$\mathbf{826} := (5! - \sqrt{4}) \times (3 \times 2 + 1)$

$\mathbf{827} := -6 + 5! - 4 + 3!! - 2 - 1$

$\mathbf{828} := 5! - 4 \times 3 + (2 + 1)!!$

$\mathbf{829} := 6! + 5! + 4 + 3! - 21$

$\mathbf{830} := 5! - 4 - 3! + (2 + 1)!!$

$\mathbf{831} := 6 \times 5 \times (4! + 3) + 21$

$\mathbf{832} := 5! - \sqrt{4} + 3!! - (2 + 1)!$

$\mathbf{833} := 5! - 4 + 3!! - 2 - 1$

$\mathbf{834} := 5! - 4 + 3!! - 2 \times 1$

$\mathbf{835} := 5! - 4 + (3 \times 2)! - 1$

$\mathbf{836} := 5! - 4 + (3 \times 2)! \times 1$

$\mathbf{837} := 5 \times 4! - 3 + (2 + 1)!!$

$\mathbf{838} := 5! - 4 + 3!! + 2 \times 1$

$\mathbf{839} := 5! + (\sqrt{4 + 32})! - 1$

$\mathbf{840} := 4! \times (3!^2 - 1)$

$\mathbf{841} := 5! + (\sqrt{4 + 32})! + 1$

$\mathbf{842} := 5! + (\sqrt{4} \times 3)! + 2 \times 1$

$\mathbf{843} := 5! + 4 + (3 \times 2)! - 1$

$\mathbf{844} := 5! + 4 + (3 \times 2)! \times 1$

$\mathbf{845} := 5! + 4 + (3 \times 2)! + 1$

$\mathbf{846} := (5! + 4! - 3) \times (2 + 1)!$

$\mathbf{847} := 5! + 4 + 3!! + 2 + 1$

$\mathbf{848} := 5! + \sqrt{4} + 3!! + (2 + 1)!$

$\mathbf{849} := 5 \times 4! + 3^{(2+1)!}$

$\mathbf{850} := 5! + (4! + 3)^2 + 1$

$\mathbf{851} := 5! + \sqrt{4} + 3^{(2+1)!}$

$\mathbf{852} := 5! + 4 \times 3 + (2 + 1)!!$

$\mathbf{853} := 5! + 4 + 3^{(2+1)!}$

$\mathbf{854} := (5! + \sqrt{4}) \times (3 \times 2 + 1)$

$\mathbf{855} := 5 \times (4! + 3) + (2 + 1)!!$

$\mathbf{856} := 6! + 5! + 4!/3 \times 2 \times 1$

$\mathbf{857} := 5! - 4 + 3!! + 21$

$\mathbf{858} := (5! + 4!) \times 3! - (2 + 1)!$

$\mathbf{859} := -5 + 4! \times 3!^2 \times 1$

$\mathbf{860} := -5 + 4! \times 3!^2 + 1$

$\mathbf{861} := (5! + 4!) \times 3! - 2 - 1$

$\mathbf{862} := 5! + 4! + 3!! - 2 \times 1$

$\mathbf{863} := 4! \times 3!^2 - 1$

$\mathbf{864} := 4 \times 3!^{2+1}$

$\mathbf{865} := 4! \times 3!^2 + 1$

$\mathbf{866} := 5! + 4! + 3!! + 2 \times 1$

$\mathbf{867} := (5! + 4!) \times 3! + 2 + 1$

$\mathbf{868} := (5! + 4) \times (3 \times 2 + 1)$

$\mathbf{869} := 5 + 4! \times 3!^2 \times 1$

$\mathbf{870} := 5 + 4! \times 3!^2 + 1$

$\mathbf{871} := 6! + 5! + 4 + 3! + 21$

$\mathbf{872} := 6! + 5 + (4 + 3) \times 21$

$\mathbf{873} := 5! + 4! + 3^{(2+1)!}$

$\mathbf{874} := 6! + 5! - \sqrt{4} + 3!^2 \times 1$

$\mathbf{875} := 5^{\sqrt{4}} \times (3!^2 - 1)$

$\mathbf{876} := (6!/5 + \sqrt{4}) \times 3 \times 2 \times 1$

$\mathbf{877} := 6! + 5! + 43 - (2 + 1)!$

$\mathbf{878} := 6! + 5! + \sqrt{4} + 3!^2 \times 1$

$\mathbf{879} := 6 \times \sqrt{5^4} \times 3! - 21$

$\mathbf{880} := 5! \times 4/3 + (2 + 1)!!$

$\mathbf{881} := 6! + 54 \times 3 - 2 + 1$

$\mathbf{882} := (5 + \sqrt{4}) \times 3! \times 21$

$\mathbf{883} := -5 + 4! \times (3!^2 + 1)$

$\mathbf{884} := 6! + 5! + 43 + 2 - 1$

$\mathbf{885} := 5! + 4! + 3!! + 21$

$\mathbf{886} := 6! + 5! + 43 + 2 + 1$

$\mathbf{887} := 5! + 4! \times 32 - 1$

$\mathbf{888} := 4! \times (3!^2 + 1)$

$\mathbf{889} := 5! + 4! \times 32 + 1$

$\mathbf{890} := 6! + (-5 + 4!) \times 3^2 - 1$

$\mathbf{891} := 6! + (5 + 4!) \times 3! - 2 - 1$

$\mathbf{892} := -6 - 5 + 43 \times 21$

$\mathbf{893} := 5 + 4! \times (3!^2 + 1)$

$\mathbf{894} := -5 + (4! + 3!)^2 - 1$

$\mathbf{895} := -5 + (4! + 3!)^2 \times 1$

$\mathbf{896} := -5 + (4! + 3!)^2 + 1$

$\mathbf{897} := 6! + (5 + 4!) \times 3! + 2 + 1$

$\mathbf{898} := -5 + 43 \times 21$

$\mathbf{899} := (4! + 3!)^2 - 1$

$\mathbf{900} := (4! + 3!)^2 \times 1$

$\mathbf{901} := (4! + 3!)^2 + 1$

$\mathbf{902} := -6 + 5 + 43 \times 21$

$\mathbf{903} := 43 \times 21$

$\mathbf{904} := 5 + (4! + 3!)^2 - 1$

$\mathbf{905} := 5 + (4! + 3!)^2 \times 1$

$\mathbf{906} := 5 + (4! + 3!)^2 + 1$

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$907 := 6! + 5! + 4 + 3 \times 21$

$908 := 5 + 43 \times 21$

$909 := 65 \times (4+3) \times 2 - 1$

$910 := 65 \times (4+3) \times 2 \times 1$

$911 := 65 \times (4+3) \times 2 + 1$

$912 := 5! + 4! \times (32+1)$

$913 := (-6+5!) \times \sqrt{4^3} + 2 - 1$

$914 := 6 + 5 + 43 \times 21$

$915 := (-6+5!) \times \sqrt{4^3} + 2 + 1$

$916 := 6! + 5 + 4! \times (3! + 2) - 1$

$917 := 6! - 5! - 4 + 321$

$918 := 6 + 5! + 4! \times (32+1)$

$919 := 6! - 5! - \sqrt{4} + 321$

$920 := (-65 \times 4 + 3!!) \times 2 \times 1$

$921 := -6 + (5+4!) \times 32 - 1$

$922 := -6 + (5+4!) \times 32 \times 1$

$923 := -6 + (5+4!) \times 32 + 1$

$924 := (6 - 5 + 43) \times 21$

$925 := 5^{\sqrt{4}} \times (3!^2 + 1)$

$926 := 6! + 5 \times (43 - 2) + 1$

$927 := (5+4!) \times 32 - 1$

$928 := (5+4!) \times 32 \times 1$

$929 := (5+4!) \times 32 + 1$

$930 := 5!/4 \times (32 - 1)$

$931 := 6! - 5 + 4! \times 3^2 \times 1$

$932 := 6! + 5 \times 43 - 2 - 1$

$933 := 6 \times 5 + 43 \times 21$

$934 := 6! + 5 \times 43 - 2 + 1$

$935 := 5 \times 43 + (2+1)!!$

$936 := (\sqrt{5+4})!! + 3!^{2+1}$

$937 := 6! - 5! - 4! + 3!!/2 + 1$

$938 := 6! + 5 \times 43 + 2 + 1$

$939 := 5! \times 4!/3 - 21$

$940 := -6 + 5^4 + 321$

$941 := 6! + 5 + 4! \times (3! + 2 + 1)$

$942 := (-6 + 5! \times 4 - 3) \times 2 \times 1$

$943 := (5! - \sqrt{4}) \times (3! + 2) - 1$

$944 := (5! - \sqrt{4}) \times (3^2 - 1)$

$945 := (5! - \sqrt{4}) \times (3! + 2) + 1$

$946 := 5^4 + 321$

$947 := (5! \times 4 - 3!) \times 2 - 1$

$948 := (5! \times 4 - 3!) \times 2 \times 1$

$949 := (5! \times 4 - 3!) \times 2 + 1$

$950 := 6! + 5! \times \sqrt{4} - 3^2 - 1$

$951 := 6! + 5! \times \sqrt{4} - 3^2 \times 1$

$952 := 6 + 5^4 + 321$

$953 := (5! \times 4 - 3) \times 2 - 1$

$954 := (5! \times 4 - 3) \times 2 \times 1$

$955 := (5! \times 4 - 3) \times 2 + 1$

$956 := 6! + 5! - 4 + (3 \times 2 - 1)!$

$957 := (5+4!) \times (32+1)$

$958 := 5! \times \sqrt{4} + 3!! - 2 \times 1$

$959 := 5!/4 \times 32 - 1$

$960 := 4 \times 3!!/(2+1)$

$961 := 5!/4 \times 32 + 1$

$962 := 5! \times \sqrt{4^3} + 2 \times 1$

$963 := \sqrt{5+4} \times 321$

$964 := 6! + 5! + 4 \times (32 - 1)$

$965 := (5! \times 4 + 3) \times 2 - 1$

$966 := 5! \times \sqrt{4} + 3!! + (2+1)!$

$967 := (5! \times 4 + 3) \times 2 + 1$

$968 := 65 + 43 \times 21$

$969 := 5! \times \sqrt{4} + 3^{(2+1)!}$

$970 := 6 \times 54 \times 3 - 2 \times 1$

$971 := (5! \times 4 + 3!) \times 2 - 1$

$972 := 54 \times (-3 + 21)$

$973 := (5! \times 4 + 3!) \times 2 + 1$

$974 := 6 \times 54 \times 3 + 2 \times 1$

$975 := (5! + \sqrt{4}) \times (3! + 2) - 1$

$976 := (5! + \sqrt{4}) \times (3! + 2 \times 1)$

$977 := (5! + \sqrt{4}) \times (3! + 2) + 1$

$978 := (5! + 43) \times (2+1)!$

$979 := (65 + 4!) \times (3! \times 2 - 1)$

$980 := 6! + 5 + 4^{3!-2} - 1$

$981 := 5! \times 4!/3 + 21$

$982 := 6! + 5! + 4! \times 3! - 2 \times 1$

$983 := 5! + 4! \times 3!^2 - 1$

$984 := 5! + 4 \times 3!^{2+1}$

$985 := 5! + 4! \times 3!^2 + 1$

$986 := 5^4 + 3!!/2 + 1$

$987 := 6! - 54 + 321$

$988 := 6! + 5! + 4 \times (3!^2 + 1)$

$989 := 6! + 54 \times (3+2) - 1$

$990 := 5!/4 \times (32+1)$

$991 := (5! + 4) \times (3! + 2) - 1$

$992 := (5! + 4) \times (3^2 - 1)$

$993 := (5! + 4) \times (3! + 2) + 1$

$994 := (6!/5 - \sqrt{4}) \times (3 \times 2 + 1)$

$995 := 6! + 5 \times (4! + 32 - 1)$

$996 := 6! + 5! \times \sqrt{4} + 3!^2 \times 1$

$997 := 6! + 5! \times \sqrt{4} + 3!^2 + 1$

$998 := 6! - (5 - 4! \times 3!) \times 2 \times 1$

$999 := 6 \times (5! + 43) + 21$

$1000 := 6! + 5! \times (4+3)/(2+1)$

12.3 Crazy Representations: Decreasing Order Ending in 0

$\mathbf{0} := 0$
$\mathbf{1} := 0!$
$\mathbf{2} := 1 + 0!$
$\mathbf{3} := 2 + 1 \times 0!$
$\mathbf{4} := 2 + 1 + 0!$
$\mathbf{5} := (2 + 1)! - 0!$
$\mathbf{6} := (2 + 1)! \times 0!$
$\mathbf{7} := (2 + 1)! + 0!$
$\mathbf{8} := -2 + 10$
$\mathbf{9} := 3^2 \times 1 \times 0!$
$\mathbf{10} := (3 - 2) \times 10$
$\mathbf{11} := 3 - 2 + 10$
$\mathbf{12} := 2 + 10$
$\mathbf{13} := 3!/2 + 10$
$\mathbf{14} := 3! - 2 + 10$
$\mathbf{15} := 3 + 2 + 10$
$\mathbf{16} := 3 \times 2 + 10$
$\mathbf{17} := -3 + 2 \times 10$
$\mathbf{18} := 3! + 2 + 10$
$\mathbf{19} := 3^2 + 10$
$\mathbf{20} := 2 \times 10$
$\mathbf{21} := 21 \times 0!$
$\mathbf{22} := 21 + 0!$
$\mathbf{23} := 3 + 2 \times 10$
$\mathbf{24} := (2 + 1 + 0!)!$
$\mathbf{25} := 3 + 21 + 0!$
$\mathbf{26} := 3! + 2 \times 10$
$\mathbf{27} := 3! + 21 \times 0!$
$\mathbf{28} := 3! + 21 + 0!$
$\mathbf{29} := -3 + \sqrt{2^{10}}$
$\mathbf{30} := 32 - 1 - 0!$
$\mathbf{31} := 32 - 1 \times 0!$
$\mathbf{32} := \sqrt{2^{10}}$
$\mathbf{33} := 32 + 1 \times 0!$
$\mathbf{34} := 32 + 1 + 0!$
$\mathbf{35} := 3!^2 - 1 \times 0!$
$\mathbf{36} := 3 \times (2 + 10)$
$\mathbf{37} := 3!^2 + 1 \times 0!$
$\mathbf{38} := 3!^2 + 1 + 0!$
$\mathbf{39} := (4 + 3)^2 - 10$
$\mathbf{40} := (3! - 2) \times 10$
$\mathbf{41} := 43 - 2 \times 1 \times 0!$
$\mathbf{42} := 32 + 10$
$\mathbf{43} := 43 + 21 \times 0$
$\mathbf{44} := 43 + (21 \times 0)!$
$\mathbf{45} := 43 + 2 \times 1 \times 0!$
$\mathbf{46} := 3!^2 + 10$
$\mathbf{47} := 4! + 3 + 2 \times 10$
$\mathbf{48} := 3! \times (-2 + 10)$
$\mathbf{49} := (4 + 3)^2 \times 1 \times 0!$
$\mathbf{50} := (3 + 2) \times 10$
$\mathbf{51} := 43 - 2 + 10$
$\mathbf{52} := 4^3 - 2 - 10$
$\mathbf{53} := (4! + 3) \times 2 - 1 \times 0!$
$\mathbf{54} := 4 + (3 + 2) \times 10$
$\mathbf{55} := 43 + 2 + 10$
$\mathbf{56} := 4^3 + 2 - 10$
$\mathbf{57} := 4! + 32 + 1 \times 0!$
$\mathbf{58} := 4! + 32 + 1 + 0!$
$\mathbf{59} := (4 + 3)^2 + 10$
$\mathbf{60} := 3 \times 2 \times 10$
$\mathbf{61} := 4^3 - 2 - 1 \times 0!$
$\mathbf{62} := 3 \times 21 - 0!$
$\mathbf{63} := 3 \times 21 \times 0!$
$\mathbf{64} := 32 \times (1 + 0!)$
$\mathbf{65} := 43 + 21 + 0!$
$\mathbf{66} := 3 \times (21 + 0!)$
$\mathbf{67} := 4 + 3 \times 21 \times 0!$
$\mathbf{68} := 4 + 3 \times 21 + 0!$
$\mathbf{69} := 4! \times 3 - 2 - 1 \times 0!$
$\mathbf{70} := 4 + 3 \times (21 + 0!)$
$\mathbf{71} := \sqrt{(3 \times 2 + 1)! + 0!}$
$\mathbf{72} := 3! \times (2 + 10)$
$\mathbf{73} := 4! \times 3 + 2 - 1 \times 0!$
$\mathbf{74} := (4!/3)^2 + 10$
$\mathbf{75} := 4! \times 3 + 2 + 1 \times 0!$
$\mathbf{76} := 43 \times 2 - 10$
$\mathbf{77} := -4 + 3^{2+1+0!}$
$\mathbf{78} := 4! \times 3 + (2 + 1)! \times 0!$
$\mathbf{79} := 4! \times 3 + (2 + 1)! + 0!$
$\mathbf{80} := (3! + 2) \times 10$
$\mathbf{81} := 3^{2 \times (1+0!)}$
$\mathbf{82} := (43 - 2) \times (1 + 0!)$
$\mathbf{83} := 4!/3! \times 21 - 0!$
$\mathbf{84} := (4 + 3) \times (2 + 10)$
$\mathbf{85} := 43 \times 2 - 1 \times 0!$
$\mathbf{86} := 43 \times 2 \times 1 \times 0!$
$\mathbf{87} := 43 \times 2 + 1 \times 0!$
$\mathbf{88} := 4 \times (32 - 10)$
$\mathbf{89} := (4! + 3!) \times (2 + 1) - 0!$
$\mathbf{90} := 3^2 \times 10$
$\mathbf{91} := (4! + 3!) \times (2 + 1) + 0!$
$\mathbf{92} := 4 \times (3 + 2 \times 10)$
$\mathbf{93} := 4! \times 3 + 21 \times 0!$
$\mathbf{94} := 4 + 3^2 \times 10$
$\mathbf{95} := 4 \times (3 + 21) - 0!$
$\mathbf{96} := 3 \times \sqrt{2^{10}}$
$\mathbf{97} := 4 \times (3 + 21) + 0!$
$\mathbf{98} := (4 + 3)^2 \times (1 + 0!)$
$\mathbf{99} := (4 + 3!)^2 - 1 \times 0!$
$\mathbf{100} := (4 + 3 \times 2) \times 10$
$\mathbf{101} := (4 + 3!)^2 + 1 \times 0!$
$\mathbf{102} := -4! + 3! \times 21 \times 0!$
$\mathbf{103} := -4! + 3! \times 21 + 0!$
$\mathbf{104} := 4 \times (3! + 2 \times 10)$

$\mathbf{105} := (4!-3)\times((2+1)!-0!)$
$\mathbf{106} := -4+(3+2)!-10$
$\mathbf{107} := 4\times(3!+21)-0!$
$\mathbf{108} := 4\times(3!+21)\times 0!$
$\mathbf{109} := 4\times(3!+21)+0!$
$\mathbf{110} := (3+2)!-10$
$\mathbf{111} := -5-4+3!\times 2\times 10$
$\mathbf{112} := 4\times(3!+21+0!)$
$\mathbf{113} := -4-3+((2+1)!-0!)!$
$\mathbf{114} := -3!+((2+1)!-0!)!$
$\mathbf{115} := -4+(3+2)!-1\times 0!$
$\mathbf{116} := -4+(3+2)!-1+0!$
$\mathbf{117} := -3+((2+1)!-0!)!$
$\mathbf{118} := (3+2)!-1-0!$
$\mathbf{119} := (3+2)!-1\times 0!$
$\mathbf{120} := ((2+1)!-0!)!$
$\mathbf{121} := (3+2)!+1\times 0!$
$\mathbf{122} := (3+2)!+1+0!$
$\mathbf{123} := 3+((2+1)!-0!)!$
$\mathbf{124} := 4\times(32-1)\times 0!$
$\mathbf{125} := 3!\times 21-0!$
$\mathbf{126} := 3!\times 21\times 0!$
$\mathbf{127} := 3!\times 21+0!$
$\mathbf{128} := 4\times 32\times 1\times 0!$
$\mathbf{129} := 43\times(2+1)\times 0!$
$\mathbf{130} := (3+2)!+10$
$\mathbf{131} := 4\times(32+1)-0!$
$\mathbf{132} := 3!\times(21+0!)$
$\mathbf{133} := 4\times(32+1)+0!$
$\mathbf{134} := (4\times 3)^2-10$
$\mathbf{135} := (4!+3)\times((2+1)!-0!)$
$\mathbf{136} := 4\times(32+1+0!)$
$\mathbf{137} := 4!\times 3!-(2+1)!-0!$
$\mathbf{138} := 4\times 32+10$
$\mathbf{139} := 4\times(3!^2-1)-0!$

$\mathbf{140} := (4+3)\times 2\times 10$
$\mathbf{141} := 4\times(3!^2-1)+0!$
$\mathbf{142} := (4\times 3)^2-1-0!$
$\mathbf{143} := (4\times 3)^2-1\times 0!$
$\mathbf{144} := 3!!\times 2/10$
$\mathbf{145} := (4\times 3)^2+1\times 0!$
$\mathbf{146} := -4^3+210$
$\mathbf{147} := (4+3)\times 21\times 0!$
$\mathbf{148} := (4+3)\times 21+0!$
$\mathbf{149} := 4!+3!\times 21-0!$
$\mathbf{150} := (4!-3^2)\times 10$
$\mathbf{151} := 4!+3!\times 21+0!$
$\mathbf{152} := 4!\times 3!-2+10$
$\mathbf{154} := 54\times 3+2-10$
$\mathbf{154} := (4\times 3)^2+10$
$\mathbf{155} := 5\times(43-2-10)$
$\mathbf{156} := 4!\times 3!+2+10$
$\mathbf{157} := 5!+4+32+1\times 0!$
$\mathbf{158} := 5!-4+32+10$
$\mathbf{159} := -54+3+210$
$\mathbf{160} := 4\times(3!-2)\times 10$
$\mathbf{161} := (4!+3)\times(2+1)!-0!$
$\mathbf{162} := (4!+3)\times(2+1)!\times 0!$
$\mathbf{163} := 43+((2+1)!-0!)!$
$\mathbf{164} := 4!\times 3!+2\times 10$
$\mathbf{165} := 4!\times 3!+21\times 0!$
$\mathbf{166} := 4!\times 3!+21+0!$
$\mathbf{167} := -43+210$
$\mathbf{168} := 4\times(32+10)$
$\mathbf{169} := 4!/3\times 21+0!$
$\mathbf{170} := 5\times(4+32)-10$
$\mathbf{171} := 5!+43-2+10$
$\mathbf{172} := 43\times(2+1+0!)$
$\mathbf{173} := 5+4\times(32+10)$
$\mathbf{174} := (-4!+3!!)/(2+1+0!)$

$\mathbf{175} := 5\times(43+2-10)$
$\mathbf{176} := 4!/3\times(21+0!)$
$\mathbf{177} := -5!/4-3+210$
$\mathbf{178} := (-4+3!!/2)/(1+0!)$
$\mathbf{179} := (-4+3!!)/(2+1+0!)$
$\mathbf{180} := 3!!/(2\times(1+0!))$
$\mathbf{181} := (4+3!!)/(2+1+0!)$
$\mathbf{182} := 4!\times(3!+2)-10$
$\mathbf{183} := -4!-3+210$
$\mathbf{184} := 4\times(3!^2+10)$
$\mathbf{185} := 5!+4^3+2-1\times 0!$
$\mathbf{186} := -4\times 3!+210$
$\mathbf{187} := 5!+4+3\times 21\times 0!$
$\mathbf{188} := -4+3!\times\sqrt{2^{10}}$
$\mathbf{189} := -4!+3+210$
$\mathbf{190} := 4!\times(3!+2)-1-0!$
$\mathbf{191} := 4!\times(3!+2)-1\times 0!$
$\mathbf{192} := 3!\times\sqrt{2^{10}}$
$\mathbf{193} := 4!\times(3!+2)+1\times 0!$
$\mathbf{194} := 4!\times(3!+2)+1+0!$
$\mathbf{195} := 5\times 43-2\times 10$
$\mathbf{196} := (4\times 3+2)^{1+0!}$
$\mathbf{197} := -5!-4+321\times 0!$
$\mathbf{198} := -4\times 3+210$
$\mathbf{199} := 5\times(43-2-1)-0!$
$\mathbf{200} := 4\times(3+2)\times 10$
$\mathbf{201} := -54/3!+210$
$\mathbf{202} := -4!/3+210$
$\mathbf{203} := -4-3+210$
$\mathbf{204} := -3!+210$
$\mathbf{205} := -\sqrt{4}-3+210$
$\mathbf{206} := 4!\times 3^2-10$
$\mathbf{207} := -3+210$
$\mathbf{208} := 4-3!+210$
$\mathbf{209} := -4+3+210$

$\mathbf{210} := (4-3) \times 210$
$\mathbf{211} := 4-3+210$
$\mathbf{212} := -4+3!+210$
$\mathbf{213} := 3+210$
$\mathbf{214} := 4!/3!+210$
$\mathbf{215} := 3!^{2+1}-0!$
$\mathbf{216} := 3!+210$
$\mathbf{217} := 3!^{2+1}+0!$
$\mathbf{218} := 4!/3+210$
$\mathbf{219} := 4+3!^{2+1}-0!$
$\mathbf{220} := 4+3!+210$
$\mathbf{221} := 4+3!^{2+1}+0!$
$\mathbf{222} := 4 \times 3+210$
$\mathbf{223} := 5 \times 43-2+10$
$\mathbf{224} := (4+3) \times \sqrt{2^{10}}$
$\mathbf{225} := ((4!+3!)/2)^{1+0!}$
$\mathbf{226} := 4! \times 3^2+10$
$\mathbf{227} := 6+5+(4!+3) \times (-2+10)$
$\mathbf{228} := 4!-3!+210$
$\mathbf{227} := 5 \times 4-3+210$
$\mathbf{230} := (4!-3+2) \times 10$
$\mathbf{231} := 4!-3+210$
$\mathbf{232} := (-4!+3!!)/(2+1) \times 0!$
$\mathbf{233} := (-4!+3!!)/(2+1)+0!$
$\mathbf{234} := 4 \times 3!+210$
$\mathbf{235} := -4+3!!/(2+1)-0!$
$\mathbf{236} := -4+3!!/(2+1) \times 0!$
$\mathbf{237} := 4!+3+210$
$\mathbf{238} := \sqrt{4} \times (3+2)!-1-0!$
$\mathbf{239} := 3!!/(2+1)-0!$
$\mathbf{240} := (3!-2)! \times 10$
$\mathbf{241} := 3!!/(2+1)+0!$
$\mathbf{242} := \sqrt{4}+3!!/(2+1) \times 0!$
$\mathbf{243} := 3^{(2+1)!-0!}$
$\mathbf{244} := 4+3!!/(2+1+0)$

$\mathbf{245} := 4+3!!/(2+1)+0!$
$\mathbf{246} := 4^{3!-2}-10$
$\mathbf{247} := (4!+3!!)/(2+1)-0!$
$\mathbf{248} := 4 \times (3 \times 21-0!)$
$\mathbf{249} := (4!+3!!)/(2+1)+0!$
$\mathbf{250} := (4!+3-2) \times 10$
$\mathbf{251} := 4 \times 3 \times 21-0!$
$\mathbf{252} := 4 \times 3 \times 21 \times 0!$
$\mathbf{253} := 43+210$
$\mathbf{254} := 4^{3!-2}-1-0!$
$\mathbf{255} := 4^{3+2-1}-0!$
$\mathbf{256} := 4 \times (3 \times 21+0!)$
$\mathbf{257} := 4^{3+2-1}+0!$
$\mathbf{258} := 43 \times (2+1)! \times 0!$
$\mathbf{259} := 43 \times (2+1)!+0!$
$\mathbf{260} := (4 \times 3!+2) \times 10$
$\mathbf{261} := 54-3+210$
$\mathbf{262} := 5+4^{3!-2}+1+0$
$\mathbf{263} := 4!+3!!/(2+1)-0!$
$\mathbf{264} := 4 \times 3 \times (21+0!)$
$\mathbf{265} := 4!+3!!/(2+1)+0!$
$\mathbf{266} := ((4^{3!-2})+10)$
$\mathbf{267} := 4!+3^{(2+1)!-0!}$
$\mathbf{268} := -54+321+0!$
$\mathbf{269} := 54 \times (3+2)-1+0$
$\mathbf{270} := (4!+3!/2) \times 10$
$\mathbf{271} := 54 \times (3+2)+1+0$
$\mathbf{272} := (5!+4!-3) \times 2-10$
$\mathbf{273} := (5+4!/3) \times 21+0$
$\mathbf{274} := 4^3+210$
$\mathbf{275} := 5 \times (43+2+10)$
$\mathbf{276} := 5! \times 4+3!-210$
$\mathbf{277} := (5!+4!-3!) \times 2+1+0$
$\mathbf{278} := 4! \times 3! \times 2-10$
$\mathbf{279} := 5+4^3+210$

$\mathbf{280} := (-4+32) \times 10$
$\mathbf{281} := (5!+4!-3) \times 2-1+0$
$\mathbf{282} := 4! \times 3+210$
$\mathbf{283} := (5!+4!-3) \times 2+1+0$
$\mathbf{284} := (4! \times 3!-2) \times (1+0!)$
$\mathbf{285} := 5+(-4+32) \times 10$
$\mathbf{286} := 4! \times 3! \times 2-1-0!$
$\mathbf{287} := 4! \times 3! \times 2-1 \times 0!$
$\mathbf{288} := 4 \times (3 \times 2)!/10$
$\mathbf{289} := (4! \times 3! \times 2+1) \times 0!$
$\mathbf{290} := (4!+3+2) \times 10$
$\mathbf{291} := -5-4!+321-0!$
$\mathbf{292} := (4! \times 3!+2) \times (1+0!)$
$\mathbf{293} := -5-4!+321+0!$
$\mathbf{294} := (5!+4!+3) \times 2 \times 1 \times 0!$
$\mathbf{295} := -5+(4!+3 \times 2) \times 10$
$\mathbf{296} := -4!+32 \times 10$
$\mathbf{297} := -4!+321 \times 0!$
$\mathbf{298} := -4!+321+0!$
$\mathbf{299} := 5 \times 4^3-21+0$
$\mathbf{300} := (4!+3 \times 2) \times 10$
$\mathbf{301} := 43 \times ((2+1)!+0!)$
$\mathbf{302} := -\sqrt{4}-3!!+2^{10}$
$\mathbf{303} := 5^4-321-0!$
$\mathbf{304} := -3!!+2^{10}$
$\mathbf{305} := 5^4-32 \times 10$
$\mathbf{306} := \sqrt{4}-3!!+2^{10}$
$\mathbf{307} := -54+(3!!/2+1) \times 0!$
$\mathbf{308} := 4-3!!+2^{10}$
$\mathbf{309} := -5+(4!-3!)^2-10$
$\mathbf{310} := (-5+4+32) \times 10$
$\mathbf{311} := 4! \times (3! \times 2+1)-0!$
$\mathbf{312} := 4! \times (3!/2+10)$
$\mathbf{313} := 4! \times (3! \times 2+1)+0!$
$\mathbf{314} := (4!-3!)^2-10$

315 $:= 5 \times (4! - 3) + 210$

316 $:= -4 + 32 \times 10$

317 $:= -4 + 321 \times 0!$

318 $:= -4 + 321 + 0!$

319 $:= -\sqrt{4} + 321 \times 0!$

320 $:= 32 \times 10$

321 $:= 321 \times 0!$

322 $:= 321 + 0!$

323 $:= (4! - 3!)^2 \times 1 - 0!$

324 $:= 4 + 32 \times 10$

325 $:= 4 + 321 \times 0!$

326 $:= 4 + 321 + 0!$

327 $:= (5! + 43) \times 2 + 1 \times 0!$

328 $:= 4! - 3!! + 2^{10}$

329 $:= 5 + 4 + 32 \times 10$

330 $:= (4! + 3^2) \times 10$

331 $:= 5! + 4 - 3 + 210$

332 $:= 54 \times 3! - 2 + 10$

333 $:= 543 - 210$

334 $:= (4! - 3!)^2 + 10$

335 $:= -4! + (3!! - 2)/(1 + 0!)$

336 $:= 4! \times (3! - 2 + 10)$

337 $:= -4! + 3!!/2 + 1 \times 0!$

338 $:= -4! + 3!!/2 + 1 + 0!$

339 $:= -5 + 43 \times (-2 + 10)$

340 $:= (\sqrt{4} + 32) \times 10$

341 $:= 5 \times 4 + 321 \times 0!$

342 $:= (4 + 3)^{2+1} - 0!$

343 $:= (4 + 3)^{2+1} \times 0!$

344 $:= 43 \times (-2 + 10)$

345 $:= 4! + 321 \times 0!$

346 $:= 4! + 321 + 0!$

347 $:= (-4! + 3!!)/2 \times 1 - 0!$

348 $:= (-4 + 3!!)/2 - 10$

349 $:= (-4! + 3!! + 2)/(1 + 0!)$

350 $:= 3!!/2 - 10$

351 $:= (\sqrt{4} + 3!!)/2 - 10$

352 $:= (4 + 3!!)/2 - 10$

353 $:= 5 + (-4! + 3!!)/2 + 1 - 0!$

354 $:= 4! \times 3! + 210$

355 $:= -4 + 3!!/2 - 1 \times 0!$

356 $:= -4 + 3!^2 \times 10$

357 $:= -4 + 3!!/2 + 1 \times 0!$

358 $:= 3!!/2 - 1 - 0!$

359 $:= 3!!/2 - 1 \times 0!$

360 $:= 3!^2 \times 10$

361 $:= 3!!/2 + 1 \times 0!$

362 $:= 3!!/2 + 1 + 0!$

363 $:= (4 + 3!!)/2 + 1 \times 0!$

364 $:= 4 + 3!^2 \times 10$

365 $:= 4 + 3!!/2 + 1 \times 0!$

366 $:= 4 + 3!!/2 + 1 + 0!$

367 $:= -5 + (4 + 3!!)/2 + 10$

368 $:= (-4 + 3!!)/2 + 10$

369 $:= (-\sqrt{4} + 3!!)/2 + 10$

370 $:= 3!!/2 + 10$

371 $:= (4! + 3!! - 2)/(1 + 0!)$

372 $:= (4 + 3!!)/2 + 10$

373 $:= (4! + 3!!)/2 + 1 \times 0!$

374 $:= 4! + 3!!/2 - 10$

375 $:= 54 + 321 \times 0!$

376 $:= 54 + 321 + 0!$

377 $:= (4! - 3!) \times 21 - 0!$

378 $:= (4! - 3!) \times 21 \times 0!$

379 $:= (4! - 3!) \times 21 + 0!$

380 $:= (\sqrt{4} + 3!^2) \times 10$

381 $:= (5! + 4 + 3) \times (2 + 1) \times 0!$

382 $:= 4! + 3!!/2 - 1 - 0!$

383 $:= 4^3 \times (2 + 1)! - 0!$

384 $:= 4^3 \times (2 + 1)! \times 0!$

385 $:= 4^3 \times (2 + 1)! + 0!$

386 $:= 4! + 3!!/2 + 1 + 0!$

387 $:= (54 + 3!!)/2 \times 1 \times 0!$

388 $:= (5! + 4! \times 3 + 2) \times (1 + 0!)$

389 $:= (5! + 4 + 3!) \times (2 + 1) - 0!$

390 $:= (5! + 4 + 3!) \times (2 + 1) \times 0!$

391 $:= 5!/4 + 3!!/2 + 1 \times 0!$

392 $:= (5! + 4) \times 3 + 21 - 0!$

393 $:= -5^4 - 3! + 2^{10}$

394 $:= 4! + 3!!/2 + 10$

395 $:= (5! + 4 \times 3) \times (2 + 1) - 0!$

396 $:= (4! - 3!) \times (21 + 0!)$

397 $:= -54 \times 3! + (2 + 1)!! + 0!$

398 $:= (5 \times 4!/3!)^2 - 1 - 0!$

399 $:= -5^4 + 32^{1+0!}$

400 $:= (4 + 3!^2) \times 10$

401 $:= 5 + (4! - 3!) \times (21 + 0!)$

402 $:= (-5 + 4! \times 3) \times (2 + 1)! \times 0!$

403 $:= (-5 + 4! \times 3) \times (2 + 1)! + 0!$

404 $:= 54 + 3!!/2 - 10$

405 $:= -5 + (43 - 2) \times 10$

406 $:= (5 + 4!) \times (3! - 2 + 10)$

407 $:= (5! - 4! + 3!!)/2 \times 1 - 0!$

408 $:= 4! \times (-3 + 2 \times 10)$

409 $:= 5^4 - 3!^{2+1} \times 0!$

410 $:= (43 - 2) \times 10$

411 $:= (5! \times 4! - 3)/((2 + 1)! + 0!)$

412 $:= 5^4 - 3 - 210$

413 $:= (5! + 4! - 3!) \times (2 + 1) - 0!$

414 $:= \sqrt{4} \times (-3 + 210)$

415 $:= 5 + (43 - 2) \times 10$

416 $:= \sqrt{4} \times 3!! - 2^{10}$

417 $:= -5 + 432 - 10$

418 $:= 5^4 + 3 - 210$

419 $:= (5! - 4 + 3!! + 2)/(1 + 0!)$

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

420 $:= (4!-3)\times 2\times 10$

421 $:= 5^4+3!-210$

422 $:= 432-10$

423 $:= (5!+4!-3)\times(2+1)\times 0!$

424 $:= 54+3!!/2+10$

425 $:= 5\times 43+210$

426 $:= \sqrt{4}\times(3+210)$

427 $:= 5+432-10$

428 $:= 5\times 43\times 2-1-0!$

429 $:= 5\times 43\times 2-1\times 0!$

430 $:= 432-1-0!$

431 $:= 432-1\times 0!$

432 $:= 432\times 1\times 0!$

433 $:= 432+1\times 0!$

434 $:= 432+1+0!$

435 $:= 5\times(43\times 2+1)\times 0!$

436 $:= 5+432-1\times 0!$

437 $:= 5+432\times 1\times 0!$

438 $:= 5+432+1\times 0!$

439 $:= (-4!+3)^2-1-0!$

440 $:= 4\times((3+2)!-10)$

441 $:= (4!-3)\times 21\times 0!$

442 $:= 432+10$

443 $:= (-4!+3)^2+1+0!$

444 $:= (5!+4!\times 32)/(1+0!)$

445 $:= -5+(43+2)\times 10$

446 $:= 5!\times 4-32-1-0!$

447 $:= 5+432+10$

448 $:= 4^3\times((2+1)!+0!)$

449 $:= 5!\times 4-32+1\times 0!$

450 $:= (43+2)\times 10$

451 $:= (4!-3)^2+10$

452 $:= (5!-4-3)\times 2\times(1+0!)$

453 $:= 5!\times 4-3!-21\times 0!$

454 $:= 5!-4!+3!!/2-1-0!$

455 $:= 4!\times\sqrt{3!!/2+1}-0!$

456 $:= 4!\times(3^2+10)$

457 $:= 4!\times\sqrt{3!!/2+1}+0!$

458 $:= 5!\times 4-32+10$

459 $:= 5!\times 4!/3!-21\times 0!$

460 $:= (5+43-2)\times 10$

461 $:= 5!\times 4+3-21-0!$

462 $:= (4!-3)\times(21+0!)$

463 $:= 5!+(4+3)^{2+1}\times 0!$

464 $:= 5\times(4!\times 3+21)-0!$

465 $:= 5\times(4!\times 3+21)\times 0!$

466 $:= 5\times(4!\times 3+21)+0!$

467 $:= 5!\times 4-3!\times 2-1\times 0!$

468 $:= 4\times(-3+((2+1)!-0!)!)$

469 $:= 5!\times 4-3+2-10$

470 $:= 4\times(3+2)!-10$

471 $:= 5!\times 4-3!-2-1\times 0!$

472 $:= 4\times((3+2)!-1-0!)$

473 $:= 5!\times 4-3\times 2-1\times 0!$

474 $:= 5!\times 4-3-2-1\times 0!$

475 $:= 4\times((3+2)!-1)-0!$

476 $:= 4\times((3+2)!-1)\times 0!$

477 $:= 4\times((3+2)!-1)+0!$

478 $:= 4\times(3+2)!-1-0!$

479 $:= 4\times(3+2)!-1\times 0!$

480 $:= 4\times 3!\times 2\times 10$

481 $:= 4\times(3+2)!+1\times 0!$

482 $:= 4\times(3+2)!+1+0!$

483 $:= 4\times((3+2)!+1)-0!$

484 $:= 4\times((3+2)!+1)\times 0!$

485 $:= 4\times((3+2)!+1)+0!$

486 $:= -4!+3!!-210$

487 $:= 5!\times 4+(3\times 2+1)\times 0!$

488 $:= 4\times((3+2)!+1+0!)$

489 $:= 5!\times 4+3^2\times 1\times 0!$

490 $:= (4+3)^2\times 10$

491 $:= 5!+(4!+3!!)/2-1\times 0!$

492 $:= 4\times(3+((2+1)!-0!)!)$

493 $:= (5+4!)\times(-3+21-0!)$

494 $:= (5!+4)\times(3!-2)-1-0!$

495 $:= (5!-4!+3)\times((2+1)!-0!)$

496 $:= 54\times 3^2+10$

497 $:= 5!+(4!-3!)\times 21-0!$

498 $:= 5!\times 4-3+21\times 0!$

499 $:= 5^4-3!\times 21\times 0!$

500 $:= 4\times(3!\times 21-0!)$

501 $:= -5-4+3!!-210$

502 $:= \sqrt{4^{3^2}}-10$

503 $:= 4\times 3!\times 21-0!$

504 $:= 4\times 3!\times 21\times 0!$

505 $:= (4!/3!)!\times 21+0!$

506 $:= -4+3!!-210$

507 $:= 5!\times 4+3!+21\times 0!$

508 $:= 4\times(3!\times 21+0!)$

509 $:= -5+4+3!!-210$

510 $:= 3!!-210$

511 $:= (4!/3)^{2+1}-0!$

512 $:= 4^3\times(-2+10)$

513 $:= (4!/3)^{2+1}+0!$

514 $:= 4+3!!-210$

515 $:= 5!\times 4+3!^2-1\times 0!$

516 $:= 43\times(2+10)$

517 $:= 5!\times 4+3!^2+1\times 0!$

518 $:= 5!\times 4+3!^2+1+0!$

519 $:= 5+4+3!!-210$

520 $:= 4\times((3+2)!+10)$

521 $:= 5+43\times(2+10)$

522 $:= \sqrt{4^{3^2}}+10$

523 $:= 543-2\times 10$

524 $:= -5+(4!-3+2)^{1+0!}$

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Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

525 $:= (-5+4!+3!)\times 21\times 0!$

526 $:= 5!\times 4+3!^2+10$

527 $:= (5\times 4+3)^2-1-0!$

528 $:= 4!\times(32-10)$

529 $:= (4!-3+2)^{1+0!}$

530 $:= 5\times 4^3+210$

531 $:= 543-2-10$

532 $:= (-5+4!)\times(3^{2+1}+0!)$

533 $:= 5+4\times 3!\times(21+0!)$

534 $:= 4!+3!!-210$

535 $:= 543+2-10$

536 $:= 543-(2+1)!-0!$

537 $:= 543-(2+1)!\times 0!$

538 $:= 543-(2+1)!+0!$

539 $:= 543-2-1-0!$

540 $:= (4!+3)\times 2\times 10$

541 $:= 543-2\times 1\times 0!$

542 $:= 5!+432-10$

543 $:= 543+21\times 0$

544 $:= 543+(21\times 0)!$

545 $:= 543+2\times 1\times 0!$

546 $:= 543+2+1\times 0!$

547 $:= 543+2+1+0!$

548 $:= -5+4!\times((3!-2)!-1)+0!$

549 $:= 543+(2+1)!\times 0!$

550 $:= 5!+432-1-0!$

551 $:= 4!\times((3!-2)!-1)-0!$

552 $:= 4!\times(3+2\times 10)$

553 $:= 4!\times((3!-2)!-1)+0!$

554 $:= 5!+432+1+0!$

555 $:= 543+2+10$

556 $:= -5!-4!+3!!-21+0!$

557 $:= -5!-43+(2+1)!!\times 0!$

558 $:= (5!-4)\times 3+210$

559 $:= -54\times 3+(2+1)!!+0!$

560 $:= (4!+32)\times 10$

561 $:= 5^4-3\times 21-0!$

562 $:= 5!+432+10$

563 $:= 543+2\times 10$

564 $:= 543+21\times 0!$

565 $:= 543+21+0!$

566 $:= (4\times 3!)^2-10$

567 $:= (4!+3)\times 21\times 0!$

568 $:= (4!+3)\times 21+0!$

569 $:= -5!-4!-3!+(2+1)!!-0!$

570 $:= 5!+(43+2)\times 10$

571 $:= -5+4!\times(3+21)\times 0!$

572 $:= -4+(3!-2)!^{1+0!}$

573 $:= 5+(4!+3)\times 21+0!$

574 $:= (4\times 3!)^2-1-0!$

575 $:= (4\times 3!)^2-1\times 0!$

576 $:= (3!-2)!^{1+0!}$

577 $:= 4!\times(3+21)+0!$

578 $:= (4\times 3!)^2+1+0!$

579 $:= 5^4-3!^2-10$

580 $:= 4+(3!-2)!^{1+0!}$

581 $:= 5+4!\times(3+21)\times 0!$

582 $:= 5\times(-4+(3+2)!)+1+0!$

583 $:= 5^4-32-10$

584 $:= -5!+4+3!!-21+0!$

585 $:= 5\times(-4+(3+2)!+1\times 0!)$

586 $:= (4\times 3!)^2+10$

587 $:= 5^4-3!^2-1-0!$

588 $:= 5^4-3!^2-1\times 0!$

589 $:= 5^4-3\times(2+10)$

590 $:= (54+3+2)\times 10$

591 $:= 5^4-32-1-0!$

592 $:= 5^4-32-1\times 0!$

593 $:= 5^4-32-1+0!$

594 $:= (4!+3)\times(21+0!)$

595 $:= 5^4-32+1+0!$

596 $:= -4+3!!-((2+1)!-0!)!$

597 $:= -5!-4!+3!!+21\times 0!$

598 $:= -\sqrt{4}+3!!-((2+1)!-0!)!$

599 $:= 4!\times((3!-2)!+1)-0!$

600 $:= 3!!-((2+1)!-0!)!$

601 $:= 4!\times((3!-2)!+1)+0!$

602 $:= \sqrt{4}+3!!-((2+1)!-0!)!$

603 $:= 5^4-32+10$

604 $:= 4+3!!-((2+1)!-0!)!$

605 $:= 5\times(4!\times(3+2)+1)\times 0!$

606 $:= -4!+3\times 210$

607 $:= 5^4-3!-2-10$

608 $:= -\sqrt{4}\times(3!!-2^{10})$

609 $:= 5^4+3!-21-0!$

610 $:= -5!+4+3!+(2+1)!!\times 0!$

611 $:= 5^4+3!-2\times 10$

612 $:= (54-3)\times(2+10)$

613 $:= 5^4-3!-(2+1)!\times 0!$

614 $:= 5^4-3+2-10$

615 $:= 5^4\times(3-2)-10$

616 $:= 5^4-3!-2-1\times 0!$

617 $:= -5!-4+3!!+21\times 0!$

618 $:= 5^4-3\times 2\times 1-0!$

619 $:= 5^4+3!-2-10$

620 $:= (4^3-2)\times 10$

621 $:= 5^4+3\times 2-10$

622 $:= 5^4-3+21\times 0$

623 $:= 5^4-3!+2+1+0!$

624 $:= 4!\times(3!^2-10)$

625 $:= (4!+3-2)^{1+0!}$

626 $:= -4+3\times 210$

627 $:= 5^4-3!-2+10$

628 $:= -\sqrt{4}+3\times 210$

629 $:= (4!+3!)\times 21-0!$

630 $:= 3 \times 210$
631 $:= (4! + 3!) \times 21 + 0!$
632 $:= \sqrt{4} + 3 \times 210$
633 $:= 5^4 + 3 + (2+1)! - 0!$
634 $:= 4 + 3 \times 210$
635 $:= 5^4 \times (3-2) + 10$
636 $:= 5^4 + 3 - 2 + 10$
637 $:= 5^4 + 3! \times 2 - 1 + 0!$
638 $:= (5 + 4!) \times (32 - 10)$
639 $:= 5 + 4 + 3 \times 210$
640 $:= (4!/3)^2 \times 10$
641 $:= \sqrt{4} \times 321 - 0!$
642 $:= \sqrt{4} \times 321 \times 0!$
643 $:= \sqrt{4} \times 321 + 0!$
644 $:= \sqrt{4} \times (321 + 0!)$
645 $:= 5 \times (4 \times 32 + 1) \times 0!$
646 $:= 5 \times 43 \times (2+1) + 0!$
647 $:= 4! \times 3^{2+1} - 0!$
648 $:= 4! \times 3^{2+1} \times 0!$
649 $:= 4! \times 3^{2+1} + 0!$
650 $:= 5 \times 4 + 3 \times 210$
651 $:= 5^4 + 3! + 2 \times 10$
652 $:= 5^4 + 3^{2+1} \times 0!$
653 $:= 5 + 4! \times 3^{2+1} \times 0!$
654 $:= 4! + 3 \times 210$
655 $:= -4^3 + (2+1)!! - 0!$
656 $:= -4^3 + (2+1)!! \times 0!$
657 $:= -4^3 + (2+1)!! + 0!$
658 $:= 5^4 + 32 + 1 \times 0!$
659 $:= 5^4 + 32 + 1 + 0!$
660 $:= (4^3 + 2) \times 10$
661 $:= 5^4 + 3 \times (2 + 10)$
662 $:= 5^4 + 3!^2 + 1 \times 0!$
663 $:= 5^4 + 3!^2 + 1 + 0!$
664 $:= -4! + 3!! - \sqrt{2^{10}}$

665 $:= 5 + (4^3 + 2) \times 10$
666 $:= (5 + 4! - 3)^2 - 10$
667 $:= 5^4 + 32 + 10$
668 $:= -5!/4 + 3!! - 21 - 0!$
669 $:= -5!/4 + 3!! - 21 \times 0!$
670 $:= (5 + 4^3 - 2) \times 10$
671 $:= -5 - 4! + 3!! - 21 + 0!$
672 $:= 4! \times (3^{2+1} + 0!)$
673 $:= -54 + 3!! + (2+1)! + 0!$
674 $:= -4! + 3!! - 21 - 0!$
675 $:= -4! + 3!! - 21 \times 0!$
676 $:= (4 \times 3! + 2)^{1+0!}$
677 $:= -43 + (2+1)!! \times 0!$
678 $:= -43 + (2+1)!! + 0!$
679 $:= -5 - 4! + 3!! - 2 - 10$
680 $:= 5 \times 4 \times (32 + 1 + 0!)$
681 $:= -5 - 4! + (3 \times 2)! - 10$
682 $:= (-5 + 4!) \times 3!^2 - 1 - 0!$
683 $:= -5 - 4! + 3!! + 2 - 10$
684 $:= -4! + 3!! - 2 - 10$
685 $:= -5 - 4! + 3!! - (2+1)! \times 0!$
686 $:= -4! + (3 \times 2)! - 10$
687 $:= 5! + (4! + 3) \times 21 \times 0!$
688 $:= 3!! - \sqrt{2^{10}}$
689 $:= -4! + 3!! - (2+1)! - 0!$
690 $:= -4! + 3!! - (2+1)! \times 0!$
691 $:= -4! + 3!! - (2+1)! + 0!$
692 $:= -4 + 3!! - (2 + 1 + 0!)!$
693 $:= -4! + 3!! - 2 - 1 \times 0!$
694 $:= -4 + 3!! - 21 - 0!$
695 $:= -4! + (3 \times 2)! - 1 \times 0!$
696 $:= 3!! - (2 + 1 + 0!)!$
697 $:= -4! + (3 \times 2)! + 1 \times 0!$
698 $:= 3!! - 21 - 0!$
699 $:= 3!! - 21 \times 0!$

700 $:= 3!! - 2 \times 10$
701 $:= -4! + 3! + (2+1)!! - 0!$
702 $:= 4 + 3!! - 21 - 0!$
703 $:= 4 + 3!! - 21 \times 0!$
704 $:= 4 + 3!! - 21 + 0!$
705 $:= -4! + 3^{2+1}! \times 0!$
706 $:= -4 + (3 \times 2)! - 10$
707 $:= -4 \times 3 + (2+1)!! - 0!$
708 $:= 3!! - 2 - 10$
709 $:= -4 \times 3 + (2+1)!! + 0!$
710 $:= (3 \times 2)! - 10$
711 $:= -4 - 3! + (2+1)!! + 0!$
712 $:= 3!! + 2 - 10$
713 $:= 3!! - (2+1)! - 0!$
714 $:= 3!! - (2+1)! \times 0!$
715 $:= 3!! - (2+1)! + 0!$
716 $:= 3!! - 2 - 1 - 0!$
717 $:= 3!! - 2 - 1 \times 0!$
718 $:= 3!! - 2 \times 1 \times 0!$
719 $:= (2+1)!! - 0!$
720 $:= (2+1)!! \times 0!$
721 $:= (2+1)!! + 0!$
722 $:= 3!! + 2 \times 1 \times 0!$
723 $:= 3!! + 2 + 1 \times 0!$
724 $:= 3!! + 2 + 1 + 0!$
725 $:= 3!! + (2+1)! - 0!$
726 $:= 3!! + (2+1)! \times 0!$
727 $:= 3! + (2+1)!! + 0!$
728 $:= 3!! - 2 + 10$
729 $:= 3^{2+1}! \times 0!$
730 $:= (3 \times 2)! + 10$
731 $:= (4! + 3)^2 + 1 + 0!$
732 $:= 3!! + 2 + 10$
733 $:= 4 + 3^{2+1}! \times 0!$
734 $:= 4 + (3 \times 2)! + 10$

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Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

735 $:= (5+4)^3 + (2+1)! \times 0!$

736 $:= -4 + 3!! + 2 \times 10$

737 $:= -4 + 3!! + 21 \times 0!$

738 $:= -4 + 3!! + 21 + 0!$

739 $:= (4! + 3)^2 + 10$

740 $:= 3!! + 2 \times 10$

741 $:= 3!! + 21 \times 0!$

742 $:= 3!! + 21 + 0!$

743 $:= 4! + (3 \times 2)! - 1 \times 0!$

744 $:= 3!! + (2 + 1 + 0!)!$

745 $:= 4 + 3!! + 21 \times 0!$

746 $:= 4 + 3!! + 21 + 0!$

747 $:= 4! + 3!! + 2 + 1 \times 0!$

748 $:= 4 + 3!! + (2 + 1 + 0!)!$

749 $:= 4! + 3!! + (2+1)! - 0!$

750 $:= 4! + 3!! + (2+1)! \times 0!$

751 $:= 4! + 3! + (2+1)!! + 0!$

752 $:= 3!! + \sqrt{2^{10}}$

753 $:= 4! + 3^{2+1}! \times 0!$

754 $:= 4! + 3^{2+1}! + 0!$

755 $:= (5!/4 + 3!) \times 21 - 0!$

756 $:= 4! + 3!! + 2 + 10$

757 $:= (5!/4 + 3!) \times 21 + 0!$

758 $:= 4! \times 32 - 10$

759 $:= 5 + 4! + (3 \times 2)! + 10$

760 $:= (-5 + 43) \times 2 \times 10$

761 $:= 5 + 4! + 3!! + 2 + 10$

762 $:= 43 + (2+1)!! - 0!$

763 $:= 43 + (2+1)!! \times 0!$

764 $:= 4! + 3!! + 2 \times 10$

765 $:= 4! + 3!! + 21 \times 0!$

766 $:= 4! \times 32 - 1 - 0!$

767 $:= 4! \times 32 - 1 \times 0!$

768 $:= 4^3 \times (2 + 10)$

769 $:= 4! \times 32 + 1 \times 0!$

770 $:= 4! \times 32 + 1 + 0!$

771 $:= 54 + 3!! - 2 - 1 \times 0!$

772 $:= 5!/4 + 3!! + 21 + 0!$

773 $:= -5 + 4! \times 32 + 10$

774 $:= 54 + 3!! + 21 \times 0$

775 $:= 54 + (3 \times 2)! + 1 \times 0!$

776 $:= 4! + 3!! + \sqrt{2^{10}}$

777 $:= 54 + 3 + (2+1)!! \times 0!$

778 $:= 4! \times 32 + 10$

779 $:= -5 + (-4 + 32)^{1+0!}$

780 $:= 5 \times (4! \times 3! + 2 + 10)$

781 $:= -5! + (4! + 3!)^2 \times 1 + 0!$

782 $:= 54 + 3!! - 2 + 10$

783 $:= 4^3 + (2+1)!! - 0!$

784 $:= 4^3 + (2+1)!! \times 0!$

785 $:= 4^3 + (2+1)!! + 0!$

786 $:= -5! - 4! + 3!! + 210$

787 $:= -5 + 4! \times (32 + 1) \times 0!$

788 $:= -5 + 4! \times 3 + (2+1)!! + 0!$

789 $:= 5 + 4^3 + (2+1)!! \times 0!$

790 $:= (5 + 4! \times 3 + 2) \times 10$

791 $:= 4! \times (32 + 1) - 0!$

792 $:= 4! \times (32 + 1) \times 0!$

793 $:= 4! \times (32 + 1) + 0!$

794 $:= 54 + 3!! + 21 - 0!$

795 $:= 54 + 3!! + 21 \times 0!$

796 $:= 54 + 3!! + 21 + 0!$

797 $:= (-5 + 43) \times 21 - 0!$

798 $:= (-5 + 43) \times 21 \times 0!$

799 $:= (-5 + 43) \times 21 + 0!$

800 $:= 5 \times 4!/3 \times 2 \times 10$

801 $:= 5! \times 4 + 321 \times 0!$

802 $:= 5! \times 4 + 321 + 0!$

803 $:= 6! + 5! - 4! - 3!/2 - 10$

804 $:= 5! - 4! + 3!! - 2 - 10$

805 $:= -5^4 + 3!! \times 2 - 10$

806 $:= -5! - 4 + 3!! + 210$

807 $:= (5 + 4!) \times 3 + (2+1)!! \times 0!$

808 $:= 5! - 4! + 3!! + 2 - 10$

809 $:= -5 \times 43 + 2^{10}$

810 $:= 54 \times 3/2 \times 10$

811 $:= -5 + 4 \times (-3! + 210)$

812 $:= (5 + 4!) \times (3^{2+1} + 0!)$

813 $:= 5! - 4! + 3!! - 2 \times 1 - 0!$

814 $:= -5! + 4 + 3!! + 210$

815 $:= 5! - 4 + 3!! - 21 \times 0!$

816 $:= 4 \times (-3! + 210)$

817 $:= 5! - 4! + (3 \times 2)! + 1 + 0$

818 $:= (5!/4!)! + 3!! - 21 - 0!$

819 $:= (5!/4!)! + 3!! - 21 \times 0!$

820 $:= 5! - 4! + 3!! + 2 + 1 + 0!$

821 $:= 5 + 4 \times (-3! + 210)$

822 $:= 5! - 4! + 3!! + ((2+1) \times 0!)!$

823 $:= -5 + 4 \times (-3 + 210)$

824 $:= 5! + 4 + 3!! - 21 + 0!$

825 $:= -5^4 + 3!! \times 2 + 10$

826 $:= 5! - 4 + (3 \times 2)! - 10$

827 $:= (5! + 4! - 3!) \times (2+1)! - 0!$

828 $:= 4 \times (-3 + 210)$

829 $:= 5^4 - 3! + 210$

830 $:= 5! - 4 - 3! + (2+1)!! \times 0!$

831 $:= (5 + 4 \times 3!)^2 - 10$

832 $:= 5^4 - 3 + 210$

833 $:= 5 + 4 \times (-3 + 210)$

834 $:= 5! - 4 + 3!! - 2 - 1 + 0!$

835 $:= 5 \times (-43 + 210)$

836 $:= -4 + 3!! + ((2+1)! - 0!)!$

837 $:= 5 \times 4! + 3!! - 2 - 1 \times 0!$

838 $:= -\sqrt{4} + 3!! + ((2+1)! - 0!)!$

839 $:= 4! \times (3!^2 - 1) - 0!$

$\mathbf{840} := 3!! + ((2+1)! - 0!)!$

$\mathbf{841} := 4! \times (3!^2 - 1) + 0!$

$\mathbf{842} := \sqrt{4} + 3!! + ((2+1)! - 0!)!$

$\mathbf{843} := (5 + 4 \times 3!)^2 + 1 + 0!$

$\mathbf{844} := 4 + 3!! + ((2+1)! - 0!)!$

$\mathbf{845} := 5! + 4 + 3!! + 2 - 1 \times 0!$

$\mathbf{846} := 5! + 4 + 3!! + 2 \times 1 \times 0!$

$\mathbf{847} := -5 + 4 \times (3 + 210)$

$\mathbf{848} := 5! \times (4+3) - 2 + 10$

$\mathbf{849} := -5 + 4! \times 3!^2 - 10$

$\mathbf{850} := 5! + 4 + 3! + (2+1)!! \times 0!$

$\mathbf{851} := 5^4 \times 3 - 2^{10}$

$\mathbf{852} := 4 \times (3 + 210)$

$\mathbf{853} := 5! + 4 + 3^{2+1}! \times 0!$

$\mathbf{854} := 4! \times 3!^2 - 10$

$\mathbf{855} := 5 \times (4! + 3) + (2+1)!! \times 0!$

$\mathbf{856} := 5! - 4 + 3!! + 21 - 0!$

$\mathbf{857} := 5 + 4 \times (3 + 210)$

$\mathbf{858} := 5! + 4! + 3!! - (2+1)! \times 0!$

$\mathbf{859} := -5 + 4! \times 3!^2 \times 1 \times 0!$

$\mathbf{860} := 43 \times 2 \times 10$

$\mathbf{861} := -5! - 43 + 2^{10}$

$\mathbf{862} := 4! \times 3!^2 - 1 - 0!$

$\mathbf{863} := 4! \times 3!^2 - 1 \times 0!$

$\mathbf{864} := 4 \times (3! + 210)$

$\mathbf{865} := 4! \times 3!^2 + 1 \times 0!$

$\mathbf{866} := 4! \times 3!^2 + 1 + 0!$

$\mathbf{867} := 5! + 4! + 3!! + 2 + 1 \times 0!$

$\mathbf{868} := 4 \times (3!^{2+1} + 0!)$

$\mathbf{869} := 5 + 4! \times 3!^2 \times 1 \times 0!$

$\mathbf{870} := 5 + 4! \times 3!^2 \times 1 + 0!$

$\mathbf{871} := 5! + 4! + 3!! + (2+1)! + 0!$

$\mathbf{872} := 5! + 4! + 3!! - 2 + 10$

$\mathbf{873} := 5! + 4! + 3^{2+1}! \times 0!$

$\mathbf{874} := 4! \times 3!^2 + 10$

$\mathbf{875} := (5!/4!)^3 \times ((2+1)! + 0!)$

$\mathbf{876} := 5! + 4! + 3!! + 2 + 10$

$\mathbf{877} := -5! - 4! - 3 + 2^{10}$

$\mathbf{878} := 5! + 4! \times 32 - 10$

$\mathbf{879} := 5 + 4! \times 3!^2 + 10$

$\mathbf{880} := -4! \times 3! + 2^{10}$

$\mathbf{881} := -5! + (4 + 3!)^{2+1} + 0!$

$\mathbf{882} := (-4! + 3)^2 \times (1 + 0!)$

$\mathbf{883} := -5! - 4! + 3 + 2^{10}$

$\mathbf{884} := 5! + 4! + 3!! + 2 \times 10$

$\mathbf{885} := 5! + 4! + 3!! + 21 \times 0!$

$\mathbf{886} := 5! + 4! \times 32 - 1 - 0!$

$\mathbf{887} := 4! \times (3!^2 + 1) - 0!$

$\mathbf{888} := 4! \times (3!^2 + 1 \times 0!)$

$\mathbf{889} := 4! \times (3!^2 + 1) + 0!$

$\mathbf{890} := (4! + 3!)^2 - 10$

$\mathbf{891} := 6 + 5! + 4! + 3!! + 21 \times 0!$

$\mathbf{892} := -5! - 4 \times 3 + 2^{10}$

$\mathbf{893} := (5 + 4! \times 3!) \times (2+1)! - 0!$

$\mathbf{894} := -5 + (4! + 3!)^2 - 1 \times 0!$

$\mathbf{895} := -5 + (4! + 3!)^2 \times 1 \times 0!$

$\mathbf{896} := (5! - 4!/3) \times (-2 + 10)$

$\mathbf{897} := -5 + (4! + 3!)^2 + 1 + 0!$

$\mathbf{898} := (4! + 3!)^2 - 1 - 0!$

$\mathbf{899} := (4! + 3!)^2 - 1 \times 0!$

$\mathbf{900} := (4! + 3!)^2 \times 1 \times 0!$

$\mathbf{901} := (4! + 3!)^2 + 1 \times 0!$

$\mathbf{902} := 43 \times 21 - 0!$

$\mathbf{903} := 43 \times 21 \times 0!$

$\mathbf{904} := 43 \times 21 + 0!$

$\mathbf{905} := -5! + 4 - 3 + 2^{10}$

$\mathbf{906} := -4! + 3!! - 210$

$\mathbf{907} := 5 + 43 \times 21 - 0!$

$\mathbf{908} := 5 + 43 \times 21 \times 0!$

$\mathbf{909} := 5 + 43 \times 21 + 0!$

$\mathbf{910} := (4! + 3!)^2 + 10$

$\mathbf{911} := -5! + 4 + 3 + 2^{10}$

$\mathbf{912} := 4! \times (3!^2 + 1 + 0!)$

$\mathbf{913} := 5! + 4! \times (32 + 1) + 0!$

$\mathbf{914} := -5! + 4 + 3! + 2^{10}$

$\mathbf{915} := 5 \times (-4! - 3 + 210)$

$\mathbf{916} := -5! + 4 \times 3 + 2^{10}$

$\mathbf{917} := 5 + 4! \times (3!^2 + 1 + 0!)$

$\mathbf{918} := (5! - \sqrt{4}) \times 3! + 210$

$\mathbf{919} := -5 \times (4! - 3) + 2^{10}$

$\mathbf{920} := (5! + 4 - 32) \times 10$

$\mathbf{921} := -5 - 4 + 3!! + 210$

$\mathbf{922} := -5! + 4! - 3! + 2^{10}$

$\mathbf{923} := -5 - \sqrt{4} + 3!! + 210$

$\mathbf{924} := (5! - 43) \times (2 + 10)$

$\mathbf{925} := -5!/4! + 3!! + 210$

$\mathbf{926} := -4 + 3!! + 210$

$\mathbf{927} := (5! - 4) \times (3! + 2) \times 1 - 0!$

$\mathbf{928} := -\sqrt{4} + 3!! + 210$

$\mathbf{929} := -5 + 4 + 3!! + 210$

$\mathbf{930} := 3!! + 210$

$\mathbf{931} := 5 - 4 + 3!! + 210$

$\mathbf{932} := \sqrt{4} + 3!! + 210$

$\mathbf{933} := \sqrt{5+4} + 3!! + 210$

$\mathbf{934} := 4 + 3!! + 210$

$\mathbf{935} := 5 \times 43 + (2+1)!! \times 0!$

$\mathbf{936} := (5 \times 4! - 3) \times (-2 + 10)$

$\mathbf{937} := (\sqrt{5+4})!! + 3!^{2+1} + 0!$

$\mathbf{938} := 5! \times 4!/3 - 21 - 0!$

$\mathbf{939} := (5+4)^3 + 210$

$\mathbf{940} := 5! \times 4!/3 - 2 \times 10$

$\mathbf{941} := -5 + 43 \times (21 + 0!)$

$\mathbf{942} := (5! \times 4 - 3^2) \times (1 + 0!)$

$\mathbf{943} := (5! - \sqrt{4}) \times (3! + 2) - 1 \times 0!$

$\mathbf{944} := -4^3! + ((2+1)! + 0!)!$

Creative Magic Squares: Increasing and Decreasing Orders Crazy Representations,
Zenodo, May, 26, 2021, pp. 1-54, https://doi.org/10.5281/zenodo.4813030

945 $:= 5^4 + 32 \times 10$

946 $:= 43 \times (21 + 0!)$

947 $:= -5! + 43 + 2^{10}$

948 $:= (5! \times 4 - 3!) \times 2 + 1 - 0!$

949 $:= (5! \times 4 - 3!) \times 2 + 1 \times 0!$

950 $:= 5! \times (4 + 3! - 2) - 10$

951 $:= 5 + 43 \times (21 + 0!)$

952 $:= -4! \times 3 + 2^{10}$

953 $:= (5! \times 4 - 3) \times 2 - 1 \times 0!$

954 $:= 4! + 3!! + 210$

955 $:= 5 \times (4! \times (3! + 2) - 1 \times 0!)$

956 $:= 4 \times (3!!/(2 + 1) - 0!)$

957 $:= 5 - 4! \times 3 + 2^{10}$

958 $:= 5!/4 \times 32 - 1 - 0!$

959 $:= 4 \times 3!!/(2 + 1) - 0!$

960 $:= 4 \times 3!!/(2 + 1) \times 0!$

961 $:= 4 \times 3!!/(2 + 1) + 0!$

962 $:= 5!/4 \times 32 + 1 + 0!$

963 $:= 5! \times 4!/3 + 2 + 1 \times 0!$

964 $:= 4 \times (3!!/(2 + 1) + 0!)$

965 $:= 5 + 4! \times (3! - 2) \times 10$

966 $:= (5! \times 4 + 3) \times 2 \times 1 \times 0!$

967 $:= -54 - 3 + 2^{10}$

968 $:= -5! + 4^3 + 2^{10}$

969 $:= 5 + 4 \times (3!!/(2 + 1) + 0!)$

970 $:= 5! \times (4 + 3! - 2) + 10$

971 $:= (5! \times 4 + 3!) \times 2 - 1 \times 0!$

972 $:= 4 \times 3^{(2+1)!-0!}$

973 $:= -54 + 3 + 2^{10}$

974 $:= -5 \times (4 + 3!) + 2^{10}$

975 $:= 5^4 + 3!!/2 - 10$

976 $:= -5 - 43 + 2^{10}$

977 $:= 5 + 4 \times 3^{(2+1)!-0!}$

978 $:= (5! \times 4 + 3^2) \times (1 + 0!)$

979 $:= (5! + 43) \times (2 + 1)! + 0!$

980 $:= 5! \times 4!/3 + 2 \times 10$

981 $:= -43 + 2^{10}$

982 $:= (5! \times 4 + 3!) \times 2 + 10$

983 $:= 5! + 4! \times 3!^2 \times 1 - 0!$

984 $:= (5 \times 4! + 3) \times (-2 + 10)$

985 $:= 5! + 4! \times 3!^2 \times 1 + 0!$

986 $:= 5 - 43 + 2^{10}$

987 $:= 5^4 + 3!!/2 + 1 + 0!$

988 $:= (5 \times \sqrt{4})^3 - 2 - 10$

989 $:= -5 - 4! - 3! + 2^{10}$

990 $:= 5 \times (-4 \times 3 + 210)$

991 $:= (5! + 4) \times (3! + 2) - 1 \times 0!$

992 $:= (5! + 4) \times (3! - 2) \times (1 + 0!)$

993 $:= (5! + 4) \times (3! + 2) + 1 \times 0!$

994 $:= -4! - 3! + 2^{10}$

995 $:= 5^4 + 3!!/2 + 10$

996 $:= (5 \times \sqrt{4})^3 - 2 - 1 - 0!$

997 $:= -4! - 3 + 2^{10}$

998 $:= -5 - 4! + 3 + 2^{10}$

999 $:= (4 + 3!)^{2+1} - 0!$

1000 $:= -4 \times 3! + 2^{10}$

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