CC BY NC 2024 Illustrative Mathematics®

Puzzle 1

Place a number card in each space to make the equations true. Each number 0–9 can only be used once.

6= ☐ + ☐	6= ☐ + ☐
6= ☐ - ☐	6= ☐ - 2
6= ☐ - ☐	6= ☐ - 1

Puzzle 2

Place a number card in each space to make the equations true. Each number 0–9 can only be used once.

7= ☐ + ☐	7= ☐ + ☐
7= ☐ - ☐	7= ☐ - 2
7= ☐ + ☐	7= ☐ - 1

CC BY NC 2024 Illustrative Mathematics®

CC BY NC 2024 Illustrative Mathematics®

Puzzle 3

Place a number card in each space to make the equations true. Each number 0–9 can only be used once. Some cards will be leftover.

8= ☐ + ☐	8= ☐ + ☐
8= ☐ - 0	8= ☐ - 1
8= ☐ + ☐	

CC BY NC 2024 Illustrative Mathematics®

Puzzle 4

Place a number card in each space to make the equations true. Each number 0–9 can only be used once.

9= ☐ + ☐	9= ☐ + ☐
9= ☐ + ☐	9= ☐ + ☐
9= ☐ + ☐	

Puzzle 5

Place a number card in each space to make the equations true. Each number 0–9 can only be used once. Some cards will be leftover.

$10 = \square + 5$	$10 = \square + \square$
$10 = 8 + \square$	$10 = \square + \square$
$10 = \square + 2$	

CC BY NC 2024 Illustrative Mathematics®

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

CC BY NC 2024 Illustrative Mathematics®

CC BY NC 2024 Illustrative Mathematics®

Puzzle 1

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

$11 = \square + \square$	$11 = 1\square - \square$
$11 = 1\square + \square$	$11 = 1\square - 2$
$11 = 1\square - 8$	$11 = 1\square - 1$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 2

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

$14 = 1 \square + \square$	$14 = \square + 7$
$14 = 8 + \square$	$14 = 1 \square - 4$
$14 = 1 \square - \square$	$14 = 1 \square - \square$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 3

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

$17 = 1 \square + \square$	$17 = 1 \square - \square$
$17 = 1 \square - \square$	$17 = 1 + 1 \square$
$17 = 1 \square - 1$	$17 = 1 \square + 2$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 4

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once.

$18 = 1\square + \square$	$18 = 1\square - \square$
$18 = 1\square + \square$	$18 = 1\square + 4$
$18 = 1\square + \square$	$18 = 1\square - 1$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 5

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

19 = 1 ☐ + ☐	19 = 1 ☐ + ☐
19 = 1 ☐ + 3	19 = 1 ☐ + 6
19 = 1 ☐ - ☐	19 = 1 ☐ + 1

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

CC BY NC 2024 Illustrative Mathematics®

CC BY NC 2024 Illustrative Mathematics®

Puzzle 1

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

75 = 71 + ☐	75 = ☐ + 70
75 = ☐☐ + 65	75 = 43 + ☐☐

CC BY NC 2024 Illustrative Mathematics®

Puzzle 2

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

98 = 47 + ☐☐	98 = 1☐ + 88
98 = ☐ + 95	98 = ☐☐ + 56

CC BY NC 2024 Illustrative Mathematics®

Puzzle 3

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

46 = ☐ 0 + 16	46 = ☐☐ + 26
46 = ☐ + 42	46 = 31 + ☐☐

CC BY NC 2024 Illustrative Mathematics®

Puzzle 4

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once.

98 = 97 + ☐	98 = 9☐ + 2
98 = ☐0 + 8	98 = 58 + ☐0
98 = ☐0 + 68	98 = 78 + ☐☐
98 = 22 + ☐6	98 = ☐☐ + 13

CC BY NC 2024 Illustrative Mathematics®

Puzzle 5

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once.

59 = ☐0 + 9	59 = 55 + ☐
59 = ☐ + 52	59 = 47 + 1☐
59 = 1☐ + 41	59 = 33 + 2☐
59 = ☐☐ + 29	59 = 40 + ☐☐

0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

CC BY NC 2024 Illustrative Mathematics®

CC BY NC 2024 Illustrative Mathematics®

Puzzle 1

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

$63 = 5\square + 8$	$63 = 5\square + \square$
$63 = 1\square + 52$	$63 = 3\square + \square 9$
$63 = \square\square + 24$	$63 = 3\square + 25$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 2

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

80 = 3 ☐ + 41	80 = ☐ 3 + 7
80 = 27 + ☐ ☐	80 = 1 ☐ + 6 ☐
80 = ☐ ☐ + 16	80 = 5 ☐ + 29

CC BY NC 2024 Illustrative Mathematics®

Puzzle 3

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

$27 = 1\square + 14$	$27 = 1\square + 1\square$
$27 = 9 + \square\square$	$27 = 2\square + 3$
$2\square = 1\square + 11$	$27 = 1\square + 8$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 4

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once.

92 = ☐☐ + 6	92 = ☐ + 83
92 = 7☐ + 1☐	92 = 9☐ + ☐
92 = 39 + 5☐	92 = 78 + ☐☐

CC BY NC 2024 Illustrative Mathematics®

Puzzle 5

Place a digit card in each space to make the equations true. Each digit 0–9 can only be used once. Some cards will be left over.

46 = ☐☐ + 23	46 = 1☐ + 31
46 = 4☐ + 5	46 = 3☐ + 7
46 = 3☐ + 10	46 = 3☐ + 8

CC BY NC 2024 Illustrative Mathematics®

Puzzle 1

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$\square\,5\,0 + \square\,5\,0 = 700$
$8\,\square\,2 - \square\,2\,1 = 371$
$\square\,2\,9 + 1\,2\,\square = 456$
$\square\,0\,0 - 1\,5\,\square = 442$
$3\,5\,\square - 1\,0\,\square = 251$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 2

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$150 + \square\ \boxed{0}\ \square = 759$
$\square\ \boxed{0}\ \boxed{0} - 187 = \boxed{5}\ \boxed{1}\ \square$
$\boxed{5}\ \boxed{2}\ \square + \boxed{1}\ \boxed{4}\ \square = 668$
$\boxed{6}\ \square\ \square - 531 = 111$
$\boxed{4}\ \square\ \square + 322 = 773$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 3

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$\square\,\boxed{4}\,\boxed{0} + \square\,\boxed{6}\,\boxed{0} = 800$
$\square\,\boxed{0}\,\boxed{0} - \square\,\boxed{5}\,\boxed{5} = 545$
$351 + \boxed{4}\,\square\,\square = 818$
$541 - \boxed{2}\,\square\,\square = 257$
$785 - 682 = \square\,\square\,\boxed{3}$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 4

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$\square\ 0\ 5 + 1\ \square\ 7 = 912$
$\square\ 0\ 0 - 271 = 3\ \square\ 9$
$\square\ 2\ 8 + \square\ 5\ 6 = 484$
$\square\ 0\ 5 - 100 = 6\ 0\ \square$
$2\ \square\ 3 + 3\ \square\ 2 = 635$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 1

Find digits that make each equation true.
You may only use each digit (0–9) once.

$\boxed{1}\ \boxed{7}\ \boxed{8}\ \boxed{\ }\ +\ \boxed{6}\ \boxed{2}\ \boxed{1}\ \boxed{\ }\ = 8{,}000$
$\boxed{\ }\ \boxed{7}\ \boxed{3}\ \boxed{1}\ +\ \boxed{3}\ \boxed{7}\ \boxed{1}\ \boxed{\ }\ = 8{,}446$
$\boxed{\ }\ \boxed{2}\ \boxed{1}\ \boxed{\ }\ - 1{,}541 = 1{,}676$
$\boxed{2}\ \boxed{0}\ \boxed{0}\ \boxed{\ }\ +\ \boxed{\ }\ \boxed{7}\ \boxed{3}\ \boxed{5}\ = 4{,}735$
$\boxed{\ }\ \boxed{0}\ \boxed{0}\ \boxed{0}\ - 1{,}789 =\ \boxed{\ }\ \boxed{2}\ \boxed{1}\ \boxed{1}$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 2

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$\boxed{3}\ \boxed{7}\ \boxed{9}\ \boxed{} + 1{,}207 = \boxed{}\ \boxed{0}\ \boxed{0}\ \boxed{0}$
$\boxed{2}\ \boxed{}\ \boxed{1}\ \boxed{2} + \boxed{4}\ \boxed{}\ \boxed{3}\ \boxed{0} = 6{,}842$
$\boxed{1}\ \boxed{0}\ \boxed{}\ \boxed{1} + \boxed{}\ \boxed{0}\ \boxed{0}\ \boxed{7} = 8{,}008$
$\boxed{}\ \boxed{2}\ \boxed{0}\ \boxed{1} - \boxed{5}\ \boxed{2}\ \boxed{0}\ \boxed{} = 3{,}000$
$\boxed{}\ \boxed{}\ \boxed{3}\ \boxed{2} - 1{,}332 = 3{,}600$

CC BY NC 2024 Illustrative Mathematics®

Puzzle 3

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$5{,}000 - \square\,\boxed{2}\,\boxed{1}\,\square = 1{,}783$
$\square\,\boxed{2}\,\boxed{5}\,\square + 3{,}241 = 4{,}500$
$\boxed{4}\,\square\,\boxed{1}\,\boxed{0} - \boxed{1}\,\boxed{4}\,\square\,\boxed{1} = 3{,}349$
$\boxed{2}\,\boxed{3}\,\boxed{2}\,\square + \square\,\boxed{6}\,\boxed{7}\,\boxed{5} = 7{,}000$
$\boxed{3}\,\square\,\boxed{0}\,\boxed{0} + \boxed{4}\,\boxed{5}\,\boxed{0}\,\square = 7{,}700$

Puzzle 4

Fill in digits to make each equation true.
You may only use each digit (0–9) once.

$\boxed{2}\boxed{}\boxed{0}\boxed{2} + \boxed{3}\boxed{0}\boxed{0}\boxed{} = 5{,}005$
$\boxed{8}\boxed{}\boxed{3}\boxed{1} - \boxed{7}\boxed{}\boxed{2}\boxed{0} = 1{,}111$
$\boxed{}\boxed{3}\boxed{5}\boxed{2} + \boxed{}\boxed{4}\boxed{2}\boxed{6} = 5{,}778$
$\boxed{}\boxed{3}\boxed{0}\boxed{2} - \boxed{4}\boxed{3}\boxed{0}\boxed{} = 1{,}000$
$\boxed{1}\boxed{}\boxed{1}\boxed{0} + 7{,}200 = \boxed{}\boxed{0}\boxed{1}\boxed{0}$

CC BY NC 2024 Illustrative Mathematics®