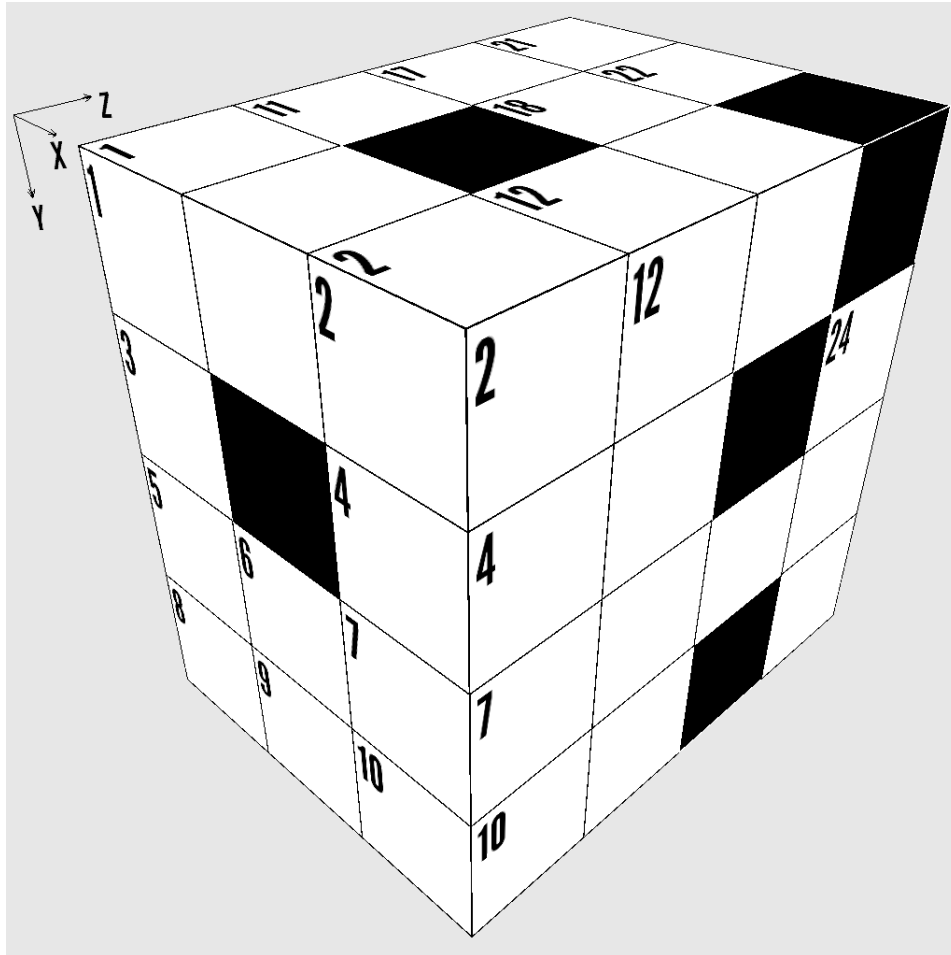


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 57



This puzzle is like a crossword, but with numbers. Each digit occupies a 3D block and can be a part of a "word" in the X, Y, and Z directions.

Rules:

1. "Words" may not start with a zero.
2. "Words" read from:
  - a. X Direction: Left to right
  - b. Y Direction: Top to bottom
  - c. Z Direction: Front to back
3. There is one unique solution which satisfies all the clues given below.
4. Some "words" may not have clues. They will be determined by the "words" which intersect them.

If we take the cube pictured above and divide it into individual X-Y layers, we will get these planes:

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

**Clues:**

**X Direction**

- 1 Last two digits are the same as Z10
- 5 Last two digits are the same as last two digits of X13
- 8 First two digits are the same as first two digits of X16
- 13 First two digits are the same as X21
- 15 Last two digits are the same as last two digits of X23
- 16 Average of X5 and X19
- 17 X5 plus X13
- 19 Digits are the same as first two digits of Y17
- 20 Is a square
- 21 Is a prime number
- 23 First two digits are the same as first two digits of Y14
- 25 X5 minus Z10

**Y Direction**

- 1 First two digits are the same as first two digits of Y12
- 2 First two digits are the same as Y18
- 6 Is a prime number
- 11 Twelve times a prime number
- 12 Z1 minus X13
- 14 Seventeen times X21
- 17 Thirty-eight times a prime number
- 18 Is a prime number
- 21 First two digits are the same as first two digits of X13
- 22 First two digits are the same as first two digits of X23
- 24 Twice a prime number

**Z Direction**

- 1 Fifty-six times a prime number
- 2 First two digits are the same as first two digits of Z5
- 3 Sixty-seven times Y18
- 4 Digits are the same as last two digits of X15
- 5 Two thousand three hundred thirty-eight more than Z7
- 6 Digits are the same as first two digits of X23
- 7 Fourteen times a prime number
- 8 Z3 minus X1
- 9 Seven times a prime number
- 10 Is a prime number
- 14 Last two digits are the same as X19
- 18 Is a prime number

**Solution is on next page**

Solution:

8	4	7
5	■	9
7	3	5
4	1	4

7	■	8
2	3	5
8	9	5
4	1	7

9	7	0
9	9	■
9	■	5
4	9	■

2	3	■
3	9	5
6	8	8
6	■	6