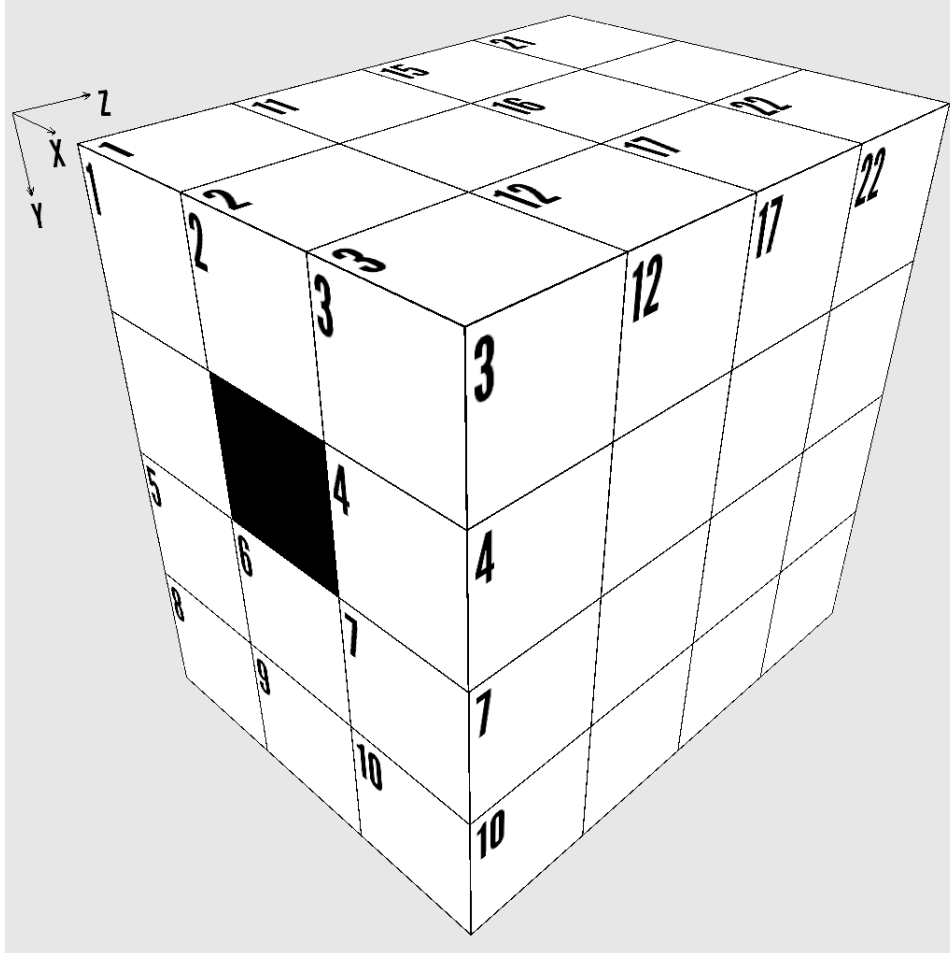


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 27



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

**Clues:**

**X Direction**

- 1 Last two digits are the same as X19
- 5 Is a prime number
- 8 X15 reversed
- 11 X13 plus X19
- 13 X11 minus Z18
- 14 Last two digits are the same as last two digits of X18
- 15 X1 minus Y13
- 18 Seven times a prime number
- 19 Digits are the same as last two digits of X20
- 20 Last two digits are the same as last two digits of X1
- 21 Forty-two times a square
- 23 Last two digits are the same as last two digits of Y21
- 25 Last two digits are the same as last two digits of Y3

**Y Direction**

- 1 X11 plus Z1
- 3 Rearranged digits of Y21
- 6 Is a square
- 12 Twenty-one times a prime number
- 13 Is a prime number
- 15 Is a square
- 16 First two digits are the same as first two digits of Z8
- 17 Six times a square
- 21 First two digits are the same as first two digits of Z7
- 22 Sixteen times a prime number
- 24 Is a prime number

**Z Direction**

- 1 First two digits are the same as Y13
- 2 Forty-nine times a prime number
- 3 Forty-two times a prime number
- 4 Z6 plus Z8
- 6 Eleven times a prime number
- 7 Last two digits are the same as last two digits of Z10
- 8 Last two digits are the same as last two digits of X23
- 9 First three digits are the same as first three digits of Y16
- 10 Twelve times a prime number
- 18 Digits are the same as last two digits of X1

**Solution is on next page**

Solution:

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