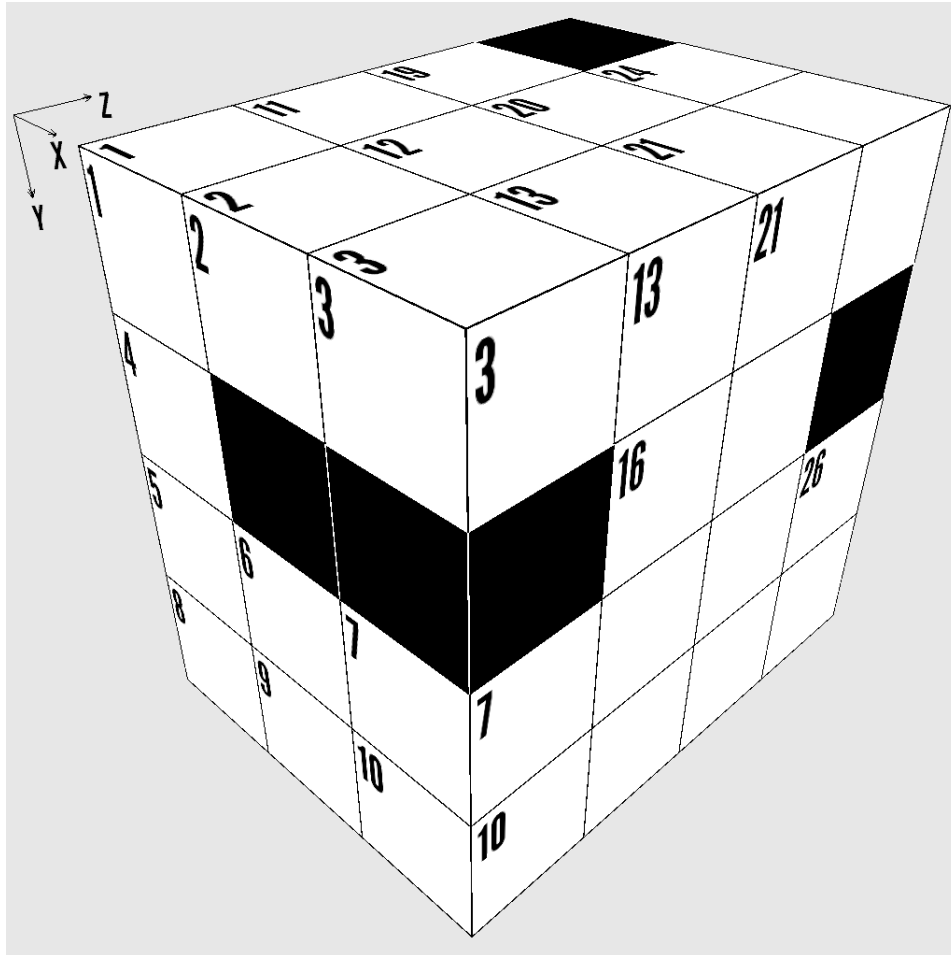


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 11



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	13	19	20	21		24	
4			14	15	16	22			25		
5	6	7	17			23					26
8	9	10	18						27		

**Clues:**

**X Direction**

- 1 Last two digits are the same as last two digits of X23
- 5 Last two digits are the same as last two digits of X11
- 8 Twenty-one times Y7
- 11 Is a prime number
- 14 Y13 minus X17
- 17 Z7 minus X18
- 18 First two digits are the same as first two digits of Z6
- 19 Five times a prime number
- 22 Is a prime number
- 23 First two digits are the same as Y7
- 24 Is a prime number
- 25 Digits are the same as last two digits of Y12
- 27 Last two digits are the same as last two digits of Z1

**Y Direction**

- 1 First two digits are the same as first two digits of Z2
- 6 Digits are the same as first two digits of Y21
- 7 Is a prime number
- 11 First two digits are the same as first two digits of X23
- 12 Last two digits are the same as last two digits of Z4
- 13 First two digits are the same as first two digits of X23
- 19 Is a prime number
- 20 Thirty-one times Y7
- 21 Ninety-four times a prime number
- 24 Is a square
- 25 Is a prime number
- 26 Is a prime number

**Z Direction**

- 1 Is a prime number
- 2 Three times a prime number
- 3 Last two digits are the same as Y6
- 4 Last two digits are the same as X25
- 5 Forty-seven times a prime number
- 6 Is a prime number
- 7 Last two digits are the same as last two digits of X1
- 8 Last two digits are the same as X24
- 9 Digits are in consecutive descending order
- 10 Twenty-three times a prime number
- 15 Six times X11
- 16 Is a prime number

**Solution is on next page**

Solution:

3	3	3
5		
9	5	1
2	7	3

1	5	1
3	9	3
9	6	5
5	6	8

1	4	5
6	0	7
1	3	3
3		4

	3	7
6	6	
7		3
7	1	1