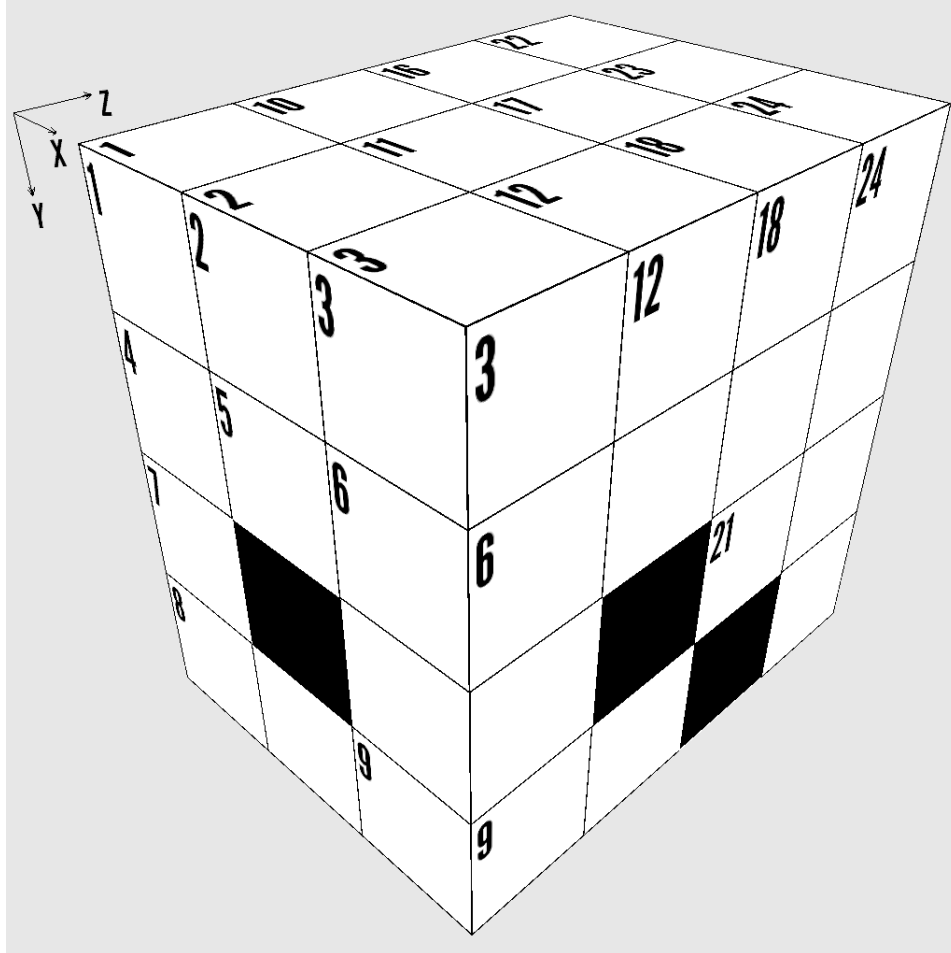


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 16



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	10	11	12	16	17	18	22	23	24
4	5	6	13				19		25		
7			14	15			20	21	26		
8		9							27		

**Clues:**

**X Direction**

- 1 Is a prime number
- 4 First two digits are the same as Z4
- 8 First two digits are the same as Z9
- 10 Fourteen times a prime number
- 13 Rearranged digits of X25
- 14 Is a prime number
- 16 First two digits are the same as first two digits of Z6
- 19 X27 minus X1
- 20 Is a square
- 22 Last two digits are the same as last two digits of Z8
- 25 Digits are the same as last three digits of Z6
- 26 Last two digits are the same as last two digits of Y10
- 27 Is a prime number

**Y Direction**

- 1 Last two digits are the same as X20
- 2 Same as X19
- 3 Rearranged digits of Z1
- 10 Ten times a prime number
- 11 Average of X16 and Z4
- 12 Five times Z7
- 17 Seven times a prime number
- 18 First two digits are the same as X19
- 22 Six times a square
- 23 Thirty-six times a prime number
- 24 Is a prime number

**Z Direction**

- 1 X25 plus Y1
- 2 Seven times a prime number
- 3 First two digits are the same as first two digits of X1
- 4 Average of X14 and Z7
- 5 First two digits are the same as first two digits of X13
- 6 Twenty times a prime number
- 7 Is a prime number
- 8 Ninety-seven times Z9
- 9 X4 minus X1
- 15 Last two digits are the same as Z7
- 21 Digits are the same as first two digits of Z8

**Solution is on next page**

Solution:

3	8	3
4	4	5
1		9
6	2	6

9	3	8
4	0	5
7	1	
0		2

5	5	8
	8	4
	1	6
1		

6	1	4
5	4	0
3	7	0
4	6	7