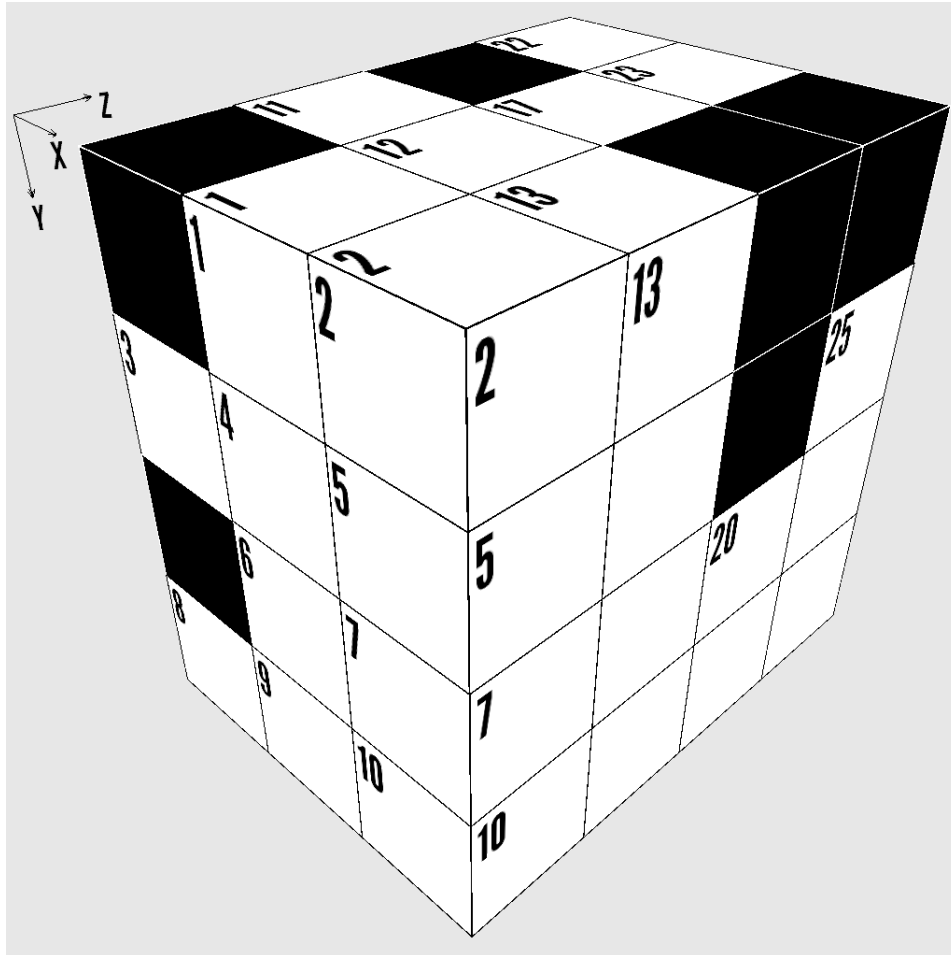


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 43



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	13		17		22	23	
3	4	5	14			18			24		25
	6	7	15			19		20	26		
8	9	10		16		21			27		

**Clues:**

**X Direction**

- 1 Twice a prime number
- 3 X11 minus X19
- 6 Sum of the digits of X8
- 8 Twenty-five times X16
- 11 Rearranged digits of Y25
- 14 Is a prime number
- 15 Is a prime number
- 16 Digits are the same as first two digits of X19
- 18 Is a square
- 19 Is a prime number
- 21 Last two digits are the same as Y20
- 22 Is a prime number
- 24 Five times a prime number
- 26 Six times X18
- 27 Is a prime number

**Y Direction**

- 1 Thirty-two times a prime number
- 2 First two digits are the same as first two digits of X27
- 11 Last two digits are the same as Z5
- 12 Last two digits are the same as last two digits of Y13
- 13 Is a prime number
- 17 Last two digits are the same as last two digits of X19
- 18 Five times a prime number
- 20 Digits are the same as last two digits of Z9
- 22 Fifty-four times a prime number
- 23 One thousand seven hundred eleven more than Y12
- 25 Seventeen times X16

**Z Direction**

- 1 First three digits are the same as X11
- 2 Digits are in consecutive descending order
- 3 Twice a prime number
- 4 Ten times a prime number
- 5 Is a square
- 6 First two digits are the same as X22
- 7 Is a square
- 9 Last two digits are the same as last two digits of X21
- 10 Last two digits are the same as last two digits of X27
- 15 X14 reversed
- 21 Four times a prime number

**Solution is on next page**

Solution:

	6	2
3	1	4
	1	5
8	2	5

6	5	1
4	3	9
9	7	7
	3	3

	1	
8	1	
3	3	7
5	7	4

1	7	
2	0	5
4	8	6
2	4	1