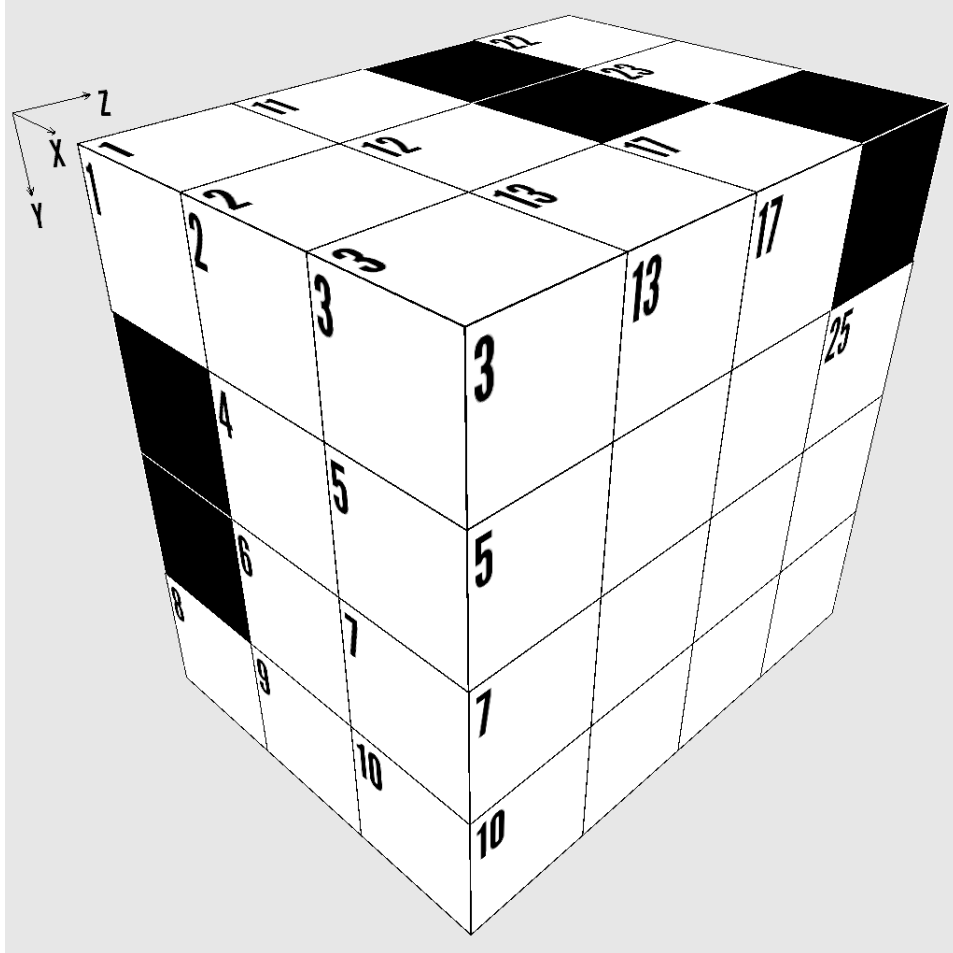


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 6



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

Clues:

X Direction

- 1 X16 minus X22
- 4 Is a prime number
- 6 Digits are in consecutive descending order
- 8 Is a prime number
- 11 First two digits are the same as first two digits of Z14
- 14 Last two digits are the same as last two digits of X26
- 15 Digits are in consecutive descending order
- 16 Is a prime number
- 18 Rearranged digits of Z14
- 20 One-fifth of X26
- 21 First two digits are the same as first two digits of Y13
- 22 All digits are the same
- 24 Is a prime number
- 26 Last two digits are the same as last two digits of Y23
- 27 Digits are the same as last two digits of Y25

Y Direction

- 2 Seven times a prime number
- 3 Last two digits are the same as last two digits of Y12
- 11 All digits are the same
- 12 Nine times a prime number
- 13 Three times a prime number
- 17 First three digits are the same as X20
- 18 Forty-eight times X4
- 19 Fifteen times a prime number
- 22 Nine times a prime number
- 23 Last two digits are the same as last two digits of X14
- 25 Is a prime number

Z Direction

- 1 Four times X4
- 2 Three times a prime number
- 3 Is a prime number
- 4 X6 plus X18
- 5 Last two digits are the same as last two digits of X20
- 6 First two digits are the same as X6
- 7 First two digits are the same as X15
- 8 First two digits are the same as X6
- 9 First two digits are the same as first two digits of Y18
- 10 Fifty-nine times X4
- 14 Twice a prime number
- 20 Is a prime number

Solution is on next page

Solution:

7	3	4	6	9	2			1	7	7	
	1	9	6	0	5	9	6	4	4	2	1
	9	8		8	7	1	4	1	7	0	5
9	9	1	8	1	1	2	5	2		5	1