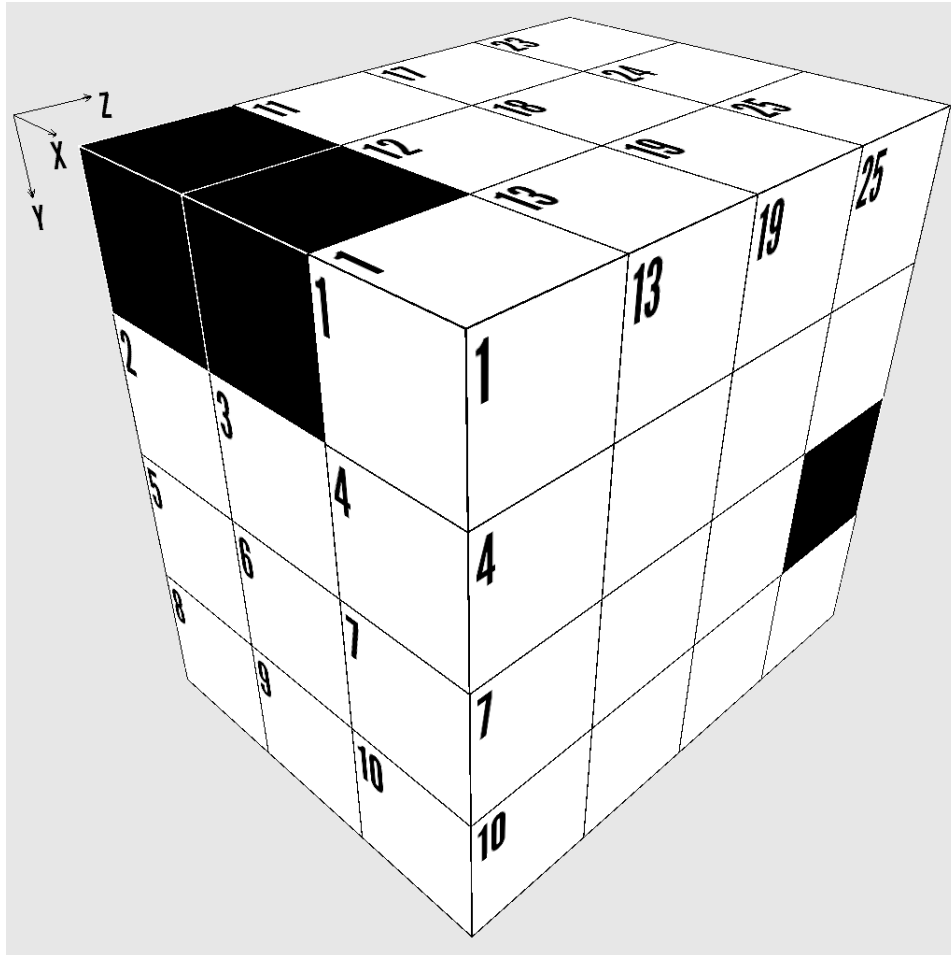


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 20



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	11	12	13	17	18	19	23	24	25
2	3	4		14			20				26	
5	6	7		15			21			27		
8	9	10			16		22			28		

Clues:

X Direction

- 2 First two digits are the same as first two digits of X14
- 5 Last two digits are the same as last two digits of Z1
- 8 Rearranged digits of X21
- 11 First two digits are the same as first two digits of Y11
- 14 Is a prime number
- 15 Six times Y27
- 16 Digits are in consecutive order
- 17 Twelve times X16
- 20 Last two digits are the same as last two digits of X21
- 21 Same as X22
- 22 Rearranged digits of X8
- 23 Twelve times X16
- 26 Is a prime number
- 27 X28 minus X8
- 28 First two digits are the same as first two digits of X21

Y Direction

- 1 Ninety-five times a prime number
- 2 Seven times a prime number
- 3 Twice a prime number
- 11 Is a prime number
- 12 First two digits are the same as first two digits of X2
- 13 First two digits are the same as first two digits of Z6
- 17 First two digits are the same as first two digits of X2
- 18 First two digits are the same as first two digits of X21
- 19 Y13 minus X5
- 24 Thirty-five times a prime number
- 25 Is a prime number
- 27 Digits are the same as last two digits of Y17

Z Direction

- 1 Twice a prime number
- 2 First two digits are the same as first two digits of X11
- 3 Forty-eight times a prime number
- 4 Thirteen times a prime number
- 5 Last two digits are the same as last two digits of Y17
- 6 Fifty times a prime number
- 7 Twenty-two times a prime number
- 9 Last two digits are the same as last two digits of X28
- 10 Last two digits are the same as last two digits of X8
- 11 First two digits are the same as first two digits of X11
- 12 First two digits are the same as first two digits of X17
- 22 One-sixth of X15

Solution is on next page

Solution:

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