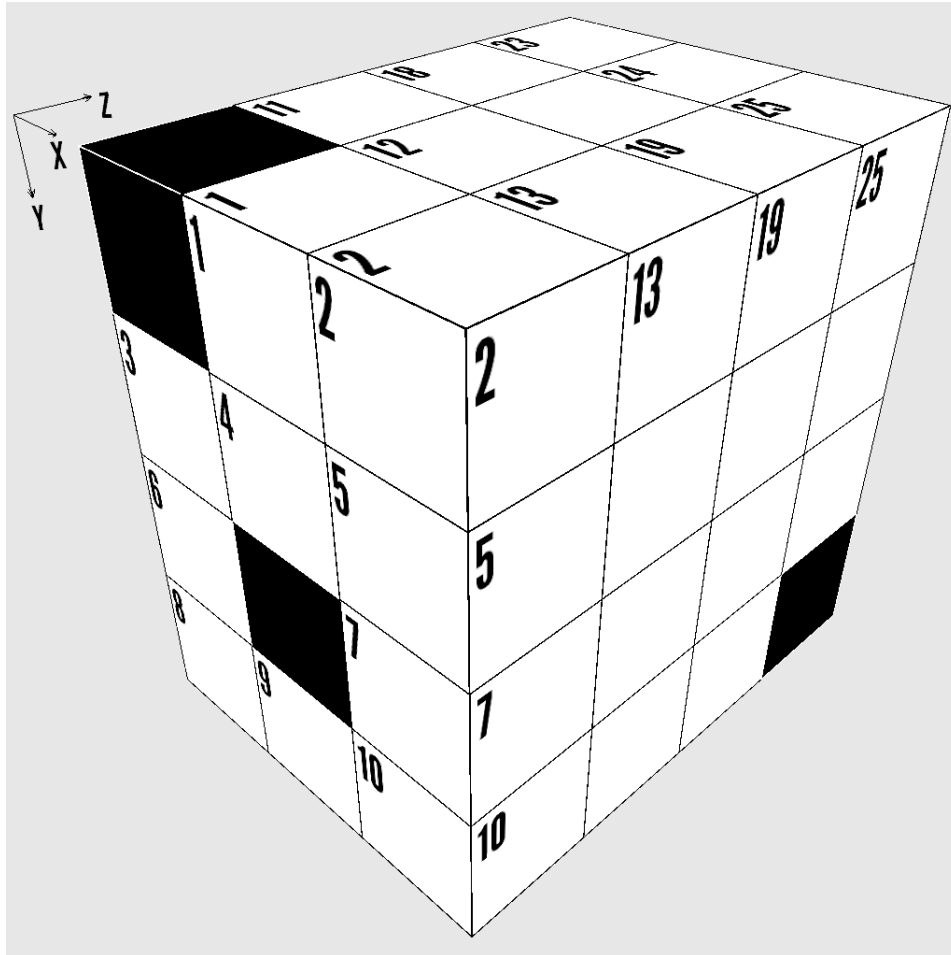


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 44



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

Clues:

X Direction

- 1 Digits are the same as last two digits of X27
- 3 Is a prime number
- 8 First two digits are the same as first two digits of Y19
- 11 Y24 minus X8
- 14 Half of X20
- 15 Is a prime number
- 17 Average of X1 and Z4
- 18 Is a prime number
- 20 Twenty-six times X22
- 22 Is a prime number
- 23 First two digits are the same as first two digits of Y12
- 26 Seven times X22
- 27 Same as Y25

Y Direction

- 1 Digits are the same as last two digits of Z6
- 2 Z5 minus Z6
- 3 Average of X23 and Z9
- 11 Digits are in consecutive descending order
- 12 Twenty-eight times a prime number
- 13 Is a square
- 18 Is a square
- 19 First three digits are the same as first three digits of Z3
- 21 Digits are the same as last two digits of Z9
- 23 Last two digits are the same as Z4
- 24 Is a prime number
- 25 Last two digits are the same as X1

Z Direction

- 1 Four times a prime number
- 2 Seven times a prime number
- 3 First two digits are the same as first two digits of X8
- 4 Twice a prime number
- 5 Three times a prime number
- 6 Is a prime number
- 7 Eleven times a square
- 9 Is a prime number
- 10 First two digits are the same as X17
- 11 Is a prime number
- 16 Is a prime number

Solution is on next page

Solution:

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