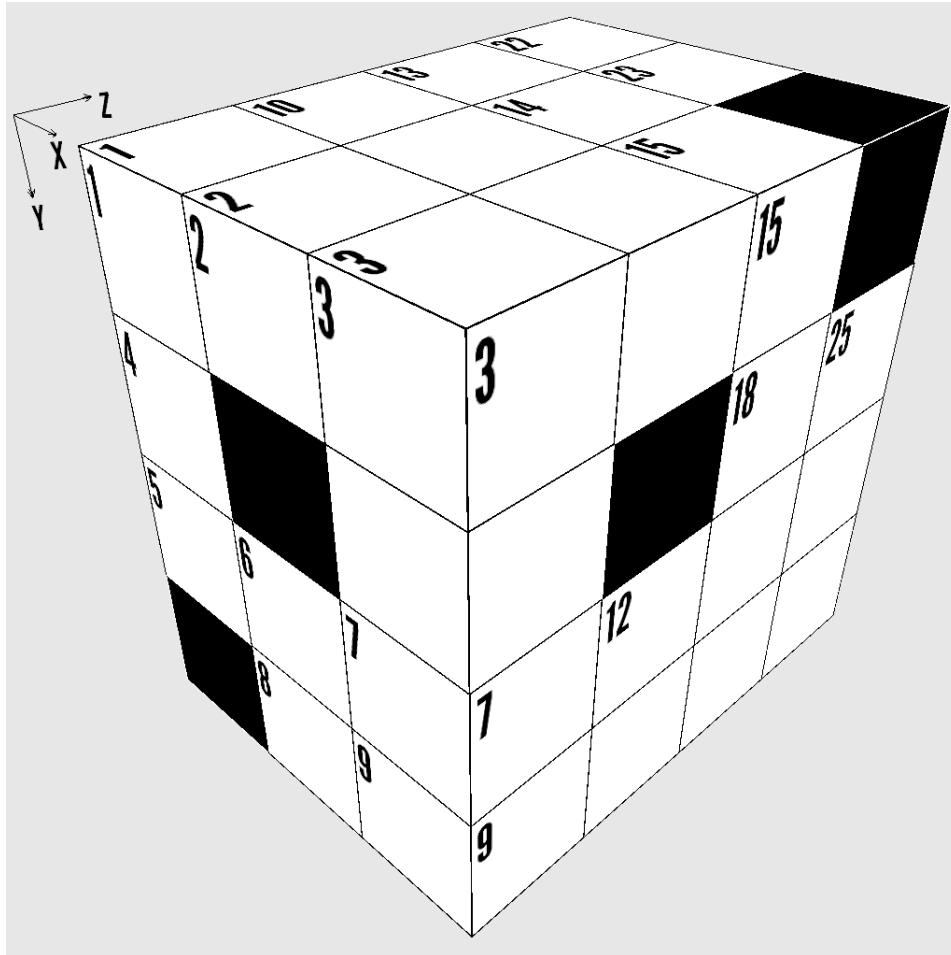


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 42



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

Clues:

X Direction

- 1 Last two digits are the same as last two digits of X19
- 5 Is a prime number
- 8 Two-thirds of X11
- 10 Ten times Y6
- 11 First two digits are the same as first two digits of Z6
- 13 Last two digits are the same as last two digits of Y3
- 16 Is a prime number
- 19 Rearranged digits of X26
- 20 X5 plus X24
- 22 Same as Z21
- 24 Last two digits are the same as Z18
- 26 Last two digits are the same as last two digits of Z7
- 27 Average of X1 and X10

Y Direction

- 1 Four times a prime number
- 3 Y15 reversed
- 6 Is a prime number
- 10 Is a prime number
- 12 Is a prime number
- 13 Last two digits are the same as last two digits of Z5
- 14 Twenty-four times a prime number
- 15 First two digits are the same as first two digits of Y22
- 22 Last two digits are the same as Z20
- 23 First two digits are the same as first two digits of X5
- 25 Seven times a prime number

Z Direction

- 1 Twelve times X19
- 2 Eighty-six times a prime number
- 3 Average of X11 and Z6
- 4 Nineteen times a prime number
- 5 First two digits are the same as first two digits of X5
- 6 Last two digits are the same as last two digits of X1
- 7 Five times a prime number
- 9 Is a prime number
- 17 Digits are the same as last two digits of X16
- 18 X5 minus X1
- 20 Twice a prime number
- 21 Y22 minus Y15

Solution is on next page

Solution:

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