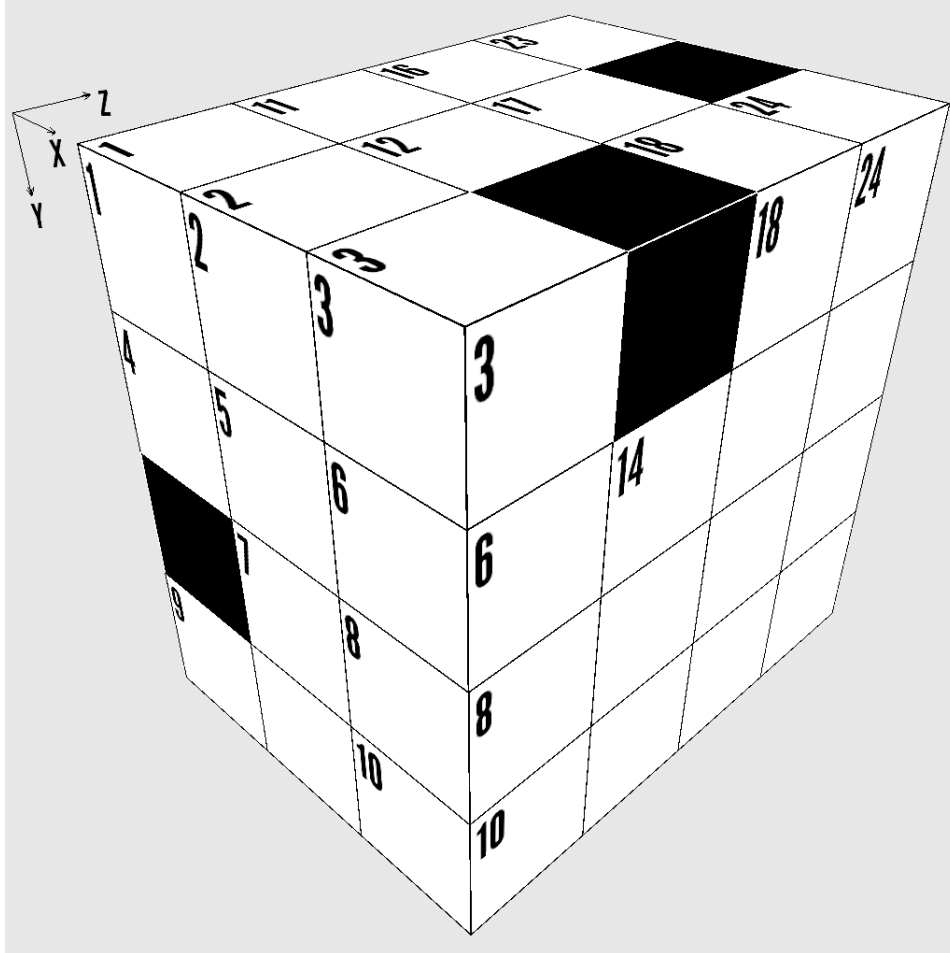


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 3



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

Clues:

X Direction

- 1 X11 plus Z20
- 4 Is a prime number
- 7 Same as X13
- 9 X20 minus Y1
- 11 Same as X15
- 13 Seven times Y1
- 15 Digits are the same as first two digits of X25
- 16 Is a prime number
- 19 Digits are the same as first three digits of Z6
- 20 Twice a prime number
- 21 Last two digits are the same as last two digits of X4
- 25 First two digits are the same as X11
- 26 Twenty times a prime number

Y Direction

- 1 Is a prime number
- 2 Nineteen times X1
- 3 Last two digits are the same as last two digits of Z5
- 12 Z1 minus X25
- 14 Is a prime number
- 16 Thirty-five times a prime number
- 17 Z9 minus X7
- 18 Is a prime number
- 23 First two digits are the same as first two digits of Z7
- 24 Last two digits are the same as last two digits of Z10

Z Direction

- 1 First two digits are the same as Z19
- 2 X4 minus Z22
- 5 Is a prime number
- 6 Is a prime number
- 7 Fourteen times X11
- 8 First two digits are the same as first two digits of Y14
- 9 X13 plus Y17
- 10 First two digits are the same as X7
- 18 Two-thirds of Z20
- 19 Is a square
- 20 X1 minus X15
- 22 Is a square

Solution is on next page

Solution:

1	2	6
3	3	1
■	9	1
5	4	9

6	9	■
■	9	1
■	6	9
2	■	1

8	5	3
1	1	2
5	6	2
5	3	1

9	■	8
6	9	3
7	■	1
4	6	0