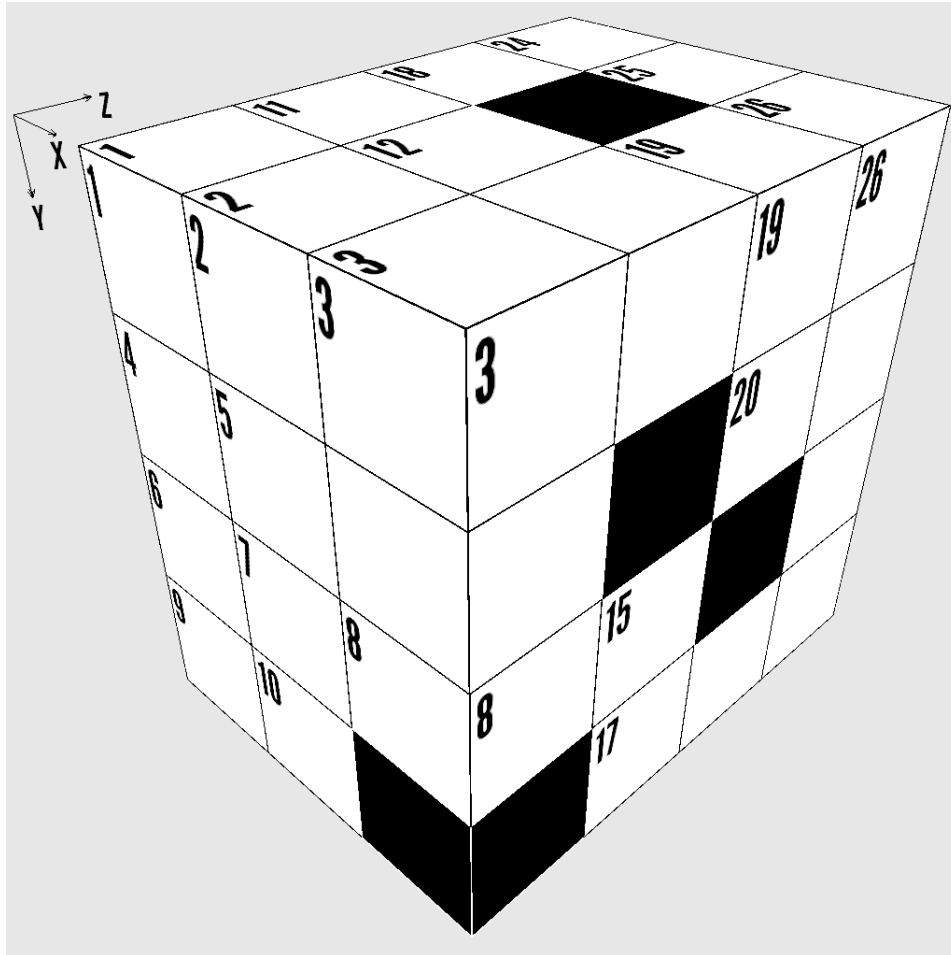


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 13



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		18		19	24	25	26
4	5		13					20		27	
6	7	8	14		15	21	22			28	
9	10		16		17	23			29		

Clues:

X Direction

- 1 Twice a prime number
- 4 First two digits are the same as first two digits of X6
- 6 First two digits are the same as first two digits of X16
- 9 Z17 minus X21
- 11 Last two digits are the same as Y19
- 13 Is a prime number
- 14 Three times Y19
- 16 Is a prime number
- 21 Digits are the same as last two digits of Y18
- 23 First two digits are the same as Y22
- 24 Six times X13
- 27 Digits are the same as first two digits of Y26
- 28 Average of X27 and Z8
- 29 X4 plus X21

Y Direction

- 1 Last two digits are the same as X13
- 2 Last two digits are the same as last two digits of X4
- 3 Last two digits are the same as last two digits of Z7
- 11 First two digits are the same as first two digits of Z4
- 12 Ninety-three more than Y26
- 15 Is a prime number
- 18 Eighty-seven times a prime number
- 19 Three times Z2
- 22 Average of X24 and Z2
- 25 Thirty-five times Z6
- 26 Last two digits are the same as Z20

Z Direction

- 1 Is a square
- 2 One-fourth of Z8
- 3 First two digits are the same as first two digits of Y1
- 4 Rearranged digits of X11
- 5 Is a prime number
- 6 First two digits are the same as first two digits of X4
- 7 First two digits are the same as first two digits of X14
- 8 Digits are in consecutive order
- 9 Ninety-two times a prime number
- 10 One thousand six hundred ninety more than Y25
- 17 Average of X6 and Y15
- 20 Two-thirds of Y19

Solution is on next page

Solution:

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