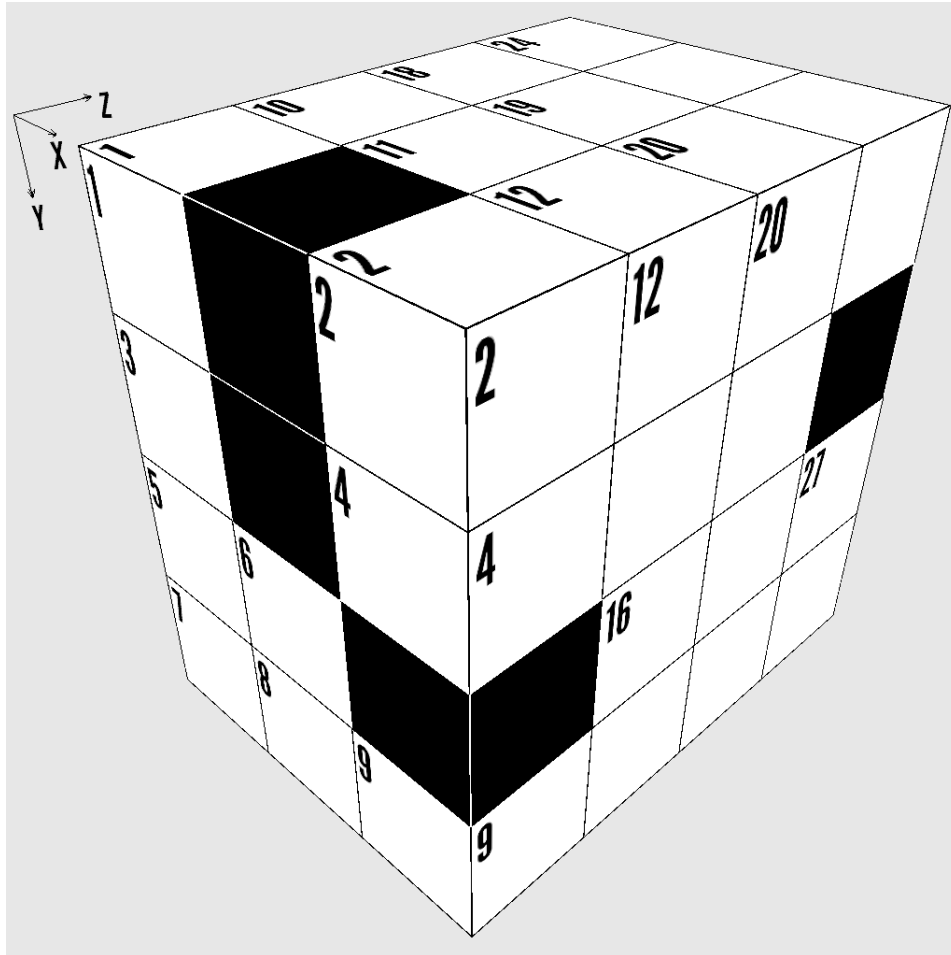


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 15



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

Clues:

X Direction

- 5 X17 reversed
- 7 Z11 minus X15
- 10 Is a prime number
- 13 Ten times Y25
- 15 First two digits are the same as first two digits of X28
- 17 X18 plus X28
- 18 Is a prime number
- 21 First two digits are the same as first two digits of Y18
- 22 Nine times Y2
- 23 Digits are in consecutive descending order
- 24 Is a prime number
- 25 Is a prime number
- 28 Is a square

Y Direction

- 1 First two digits are the same as first two digits of Z5
- 2 Y6 minus X5
- 6 Is a prime number
- 10 Is a prime number
- 11 Nineteen times X21
- 12 First two digits are the same as first two digits of X24
- 18 Is a prime number
- 19 Thirty-seven times a square
- 20 Twelve times a prime number
- 25 Digits are the same as last two digits of Z3
- 26 Is a square
- 27 Digits are the same as first two digits of X25

Z Direction

- 1 Is a prime number
- 2 Twenty-one times X5
- 3 Three times a prime number
- 4 X18 plus Y26
- 5 Last two digits are the same as last two digits of X25
- 6 Is a prime number
- 7 Is a prime number
- 8 Four times X18
- 9 One thousand five hundred twenty-three less than Y20
- 11 Two-thirds of Y12
- 14 Digits are the same as first two digits of X21
- 16 Is a prime number

Solution is on next page

Solution:

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