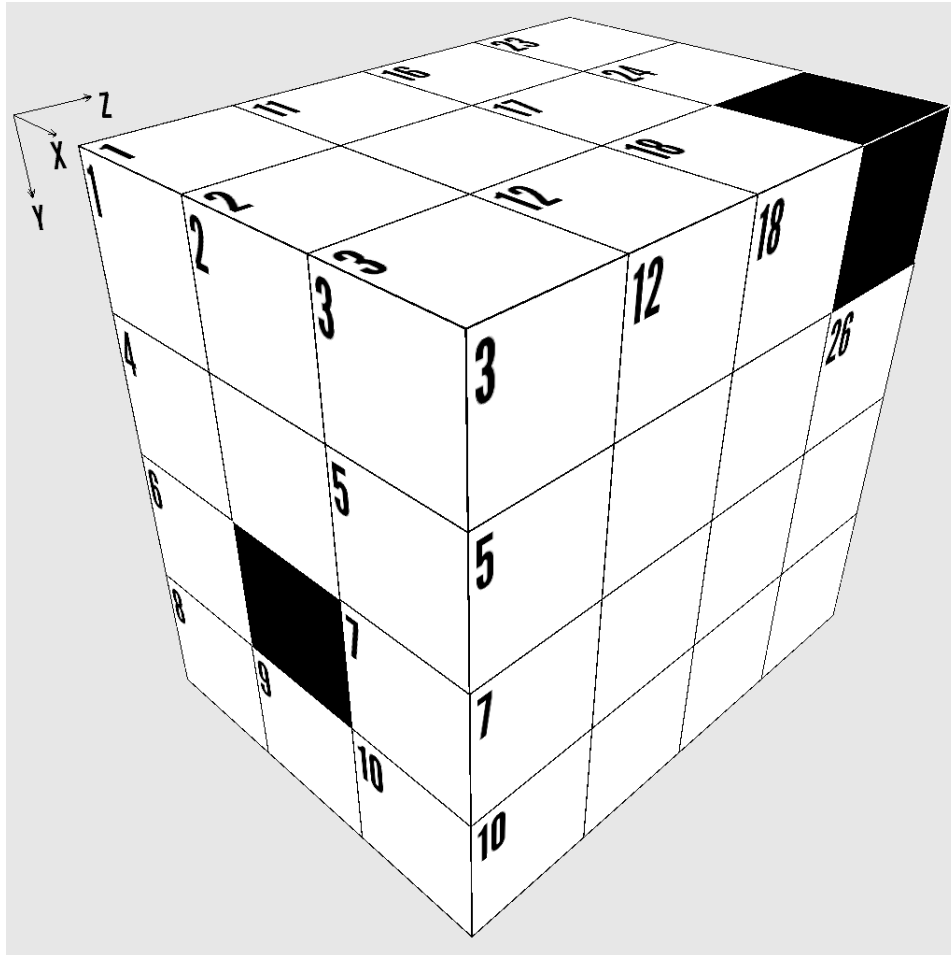


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 39



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				19	20		25		26
6		7	13	14		21			27		
8	9	10		15		22					

Clues:

X Direction

- 1 Two-thirds of X4
- 4 Same as X21
- 8 First two digits are the same as first two digits of Y12
- 11 First two digits are the same as Z20
- 13 Twice a prime number
- 15 X23 reversed
- 16 Twenty-four times a prime number
- 19 First two digits are the same as first two digits of Y18
- 21 X1 plus X23
- 23 X4 minus X1
- 25 Y14 plus Y26
- 27 Six times Y14

Y Direction

- 1 Is a prime number
- 2 Is a prime number
- 3 Y23 plus Y26
- 11 First two digits are the same as first two digits of Z6
- 12 Seventy-five times Y17
- 14 Digits are the same as last two digits of Y26
- 16 Nineteen times a square
- 17 Is a prime number
- 18 X27 plus Z2
- 23 Four times a prime number
- 24 Same as Z14
- 26 Forty-three times Z22

Z Direction

- 1 First two digits are the same as first two digits of Y17
- 2 First two digits are the same as first two digits of X4
- 3 Z4 minus Z1
- 4 Last two digits are the same as last two digits of Y17
- 5 First two digits are the same as first two digits of Z10
- 6 Fifty-five times a prime number
- 7 Seventy-two times a prime number
- 9 X4 minus X1
- 10 Eight times a prime number
- 14 Eight times a prime number
- 20 Digits are the same as last two digits of Y17
- 22 Is a square

Solution is on next page

Solution:

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