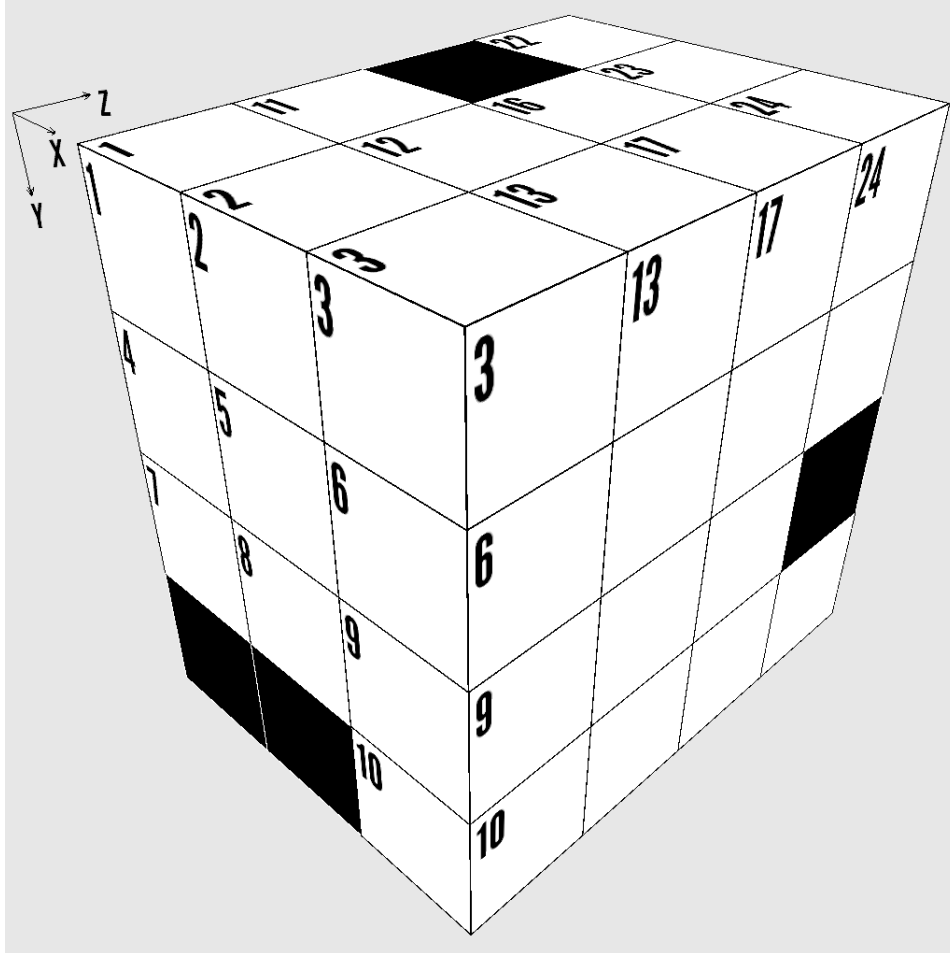


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 2



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

Clues:

X Direction

- 1 Is a prime number
- 4 Fifteen times X16
- 7 First two digits are the same as first two digits of Y17
- 11 Last two digits are the same as last two digits of Y13
- 14 Last two digits are the same as last two digits of Z10
- 15 Thirty-three times a prime number
- 16 Is a square
- 18 Y12 minus X1
- 19 Y2 plus Z21
- 20 First two digits are the same as first two digits of Y18
- 22 Z7 minus Z21
- 25 Is a prime number
- 26 X18 minus Z20

Y Direction

- 1 Is a prime number
- 2 Last two digits are the same as last two digits of X4
- 3 Y13 minus X18
- 11 Six times a prime number
- 12 Fifty-four times a prime number
- 13 Fourteen times a prime number
- 16 Is a prime number
- 17 Twenty times X11
- 18 Last two digits are the same as last two digits of X4
- 22 Digits are the same as first two digits of Z7
- 23 Eleven times a square
- 24 Digits are in consecutive descending order

Z Direction

- 1 Sum of the digits of X22
- 2 Nineteen times a prime number
- 3 Four times a prime number
- 4 Rearranged digits of Z8
- 5 Ninety-nine times Z21
- 6 Is a prime number
- 7 Last two digits are the same as last two digits of Y16
- 8 Twenty-three times a prime number
- 9 First two digits are the same as first two digits of Y1
- 10 Thirty-eight times a square
- 20 Average of Y22 and Z1
- 21 Is a prime number

Solution is on next page

Solution:

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