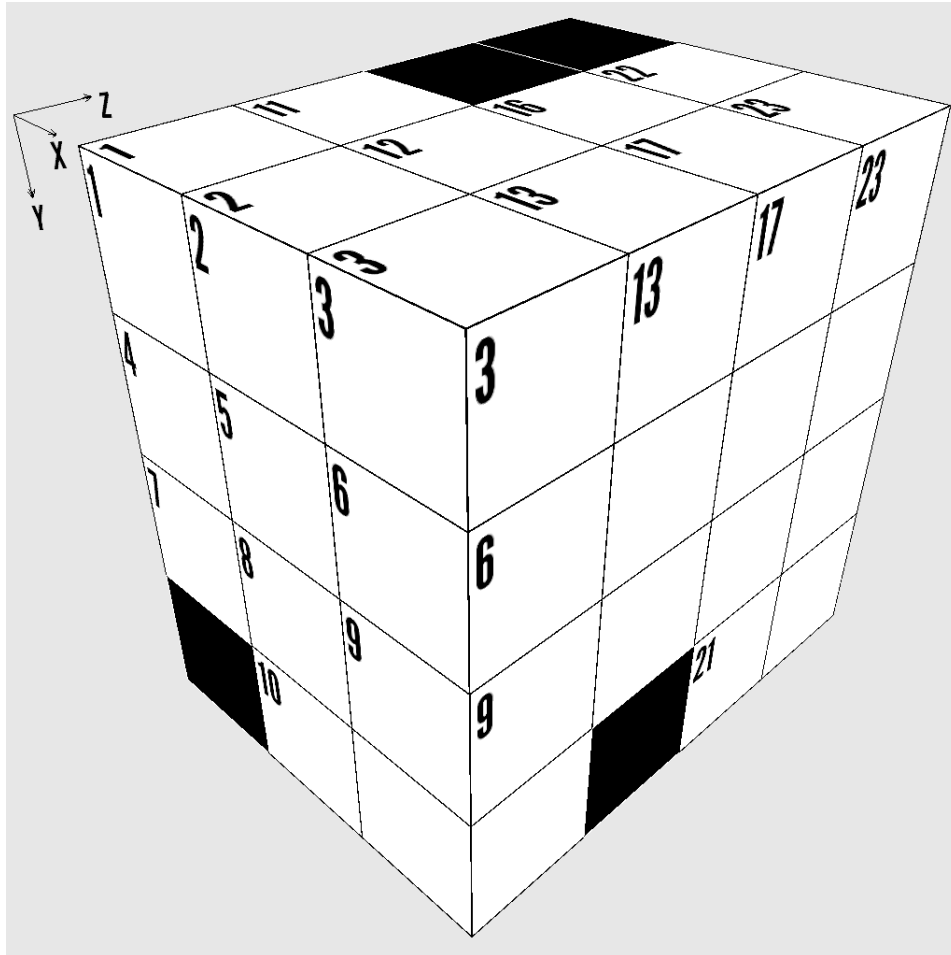


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 22



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
4	5	6	14			18			24		
7	8	9	15			19				25	
	10						20	21	26		

Clues:

X Direction

- 1 First two digits are the same as first two digits of Y3
- 4 Is a square
- 7 Last two digits are the same as last two digits of Y2
- 10 Is a square
- 11 Twenty-one times a prime number
- 14 Three times X25
- 15 First two digits are the same as first two digits of X24
- 16 X22 plus Z21
- 18 X7 minus Y18
- 19 X4 plus X10
- 20 Is a square
- 22 Sum of the digits of X11
- 24 Last two digits are the same as Z21
- 25 Is a prime number
- 26 Twenty-three times X10

Y Direction

- 1 First two digits are the same as first two digits of Y11
- 2 Twenty-three times Y1
- 3 Last two digits are the same as X10
- 11 Z3 minus X20
- 12 Digits are the same as last three digits of Z2
- 13 Twenty-two times a prime number
- 16 Four times a prime number
- 17 Is a prime number
- 18 X25 minus X10
- 22 X18 plus X24
- 23 Six times a prime number

Z Direction

- 1 All digits are the same
- 2 First two digits are the same as first two digits of Y2
- 3 Fifteen times X4
- 4 Fifteen times a prime number
- 5 First two digits are the same as first two digits of Y12
- 6 Y2 minus X16
- 7 Three times a prime number
- 8 Forty-three times a square
- 9 Is a prime number
- 20 Twice a prime number
- 21 X20 reversed

Solution is on next page

Solution:

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