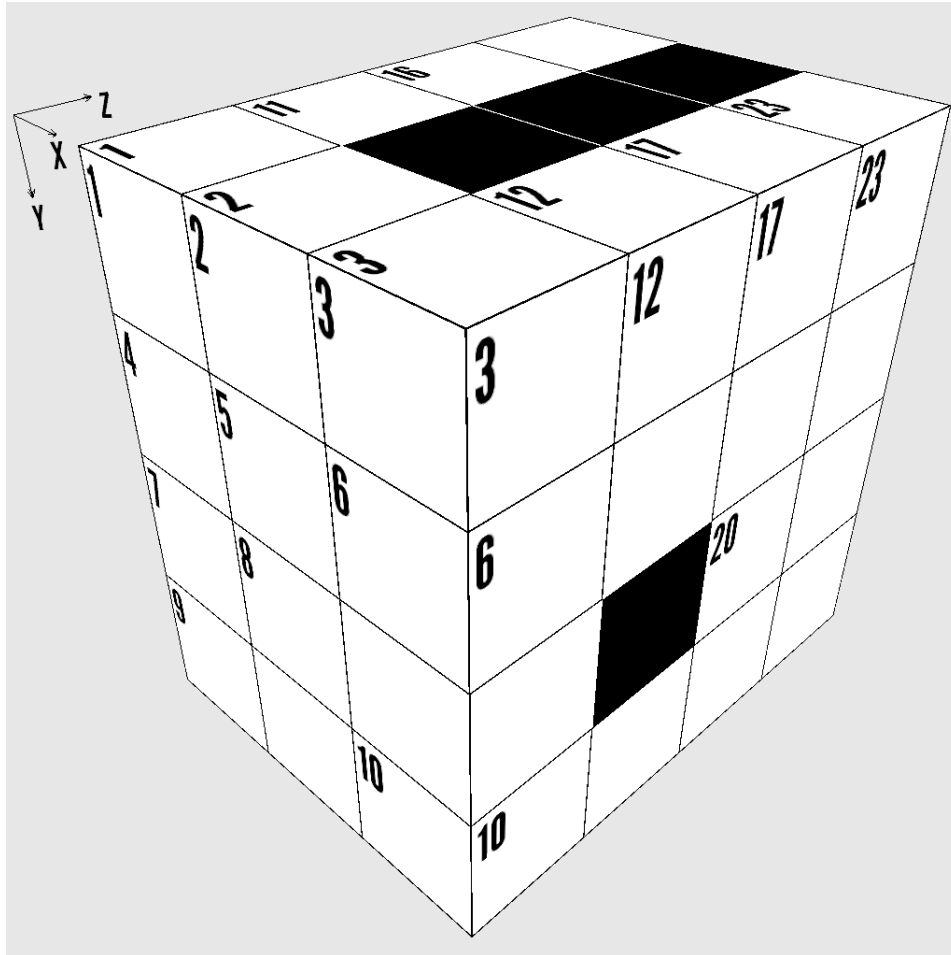


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 60



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

Clues:

X Direction

- 1 First two digits are the same as first two digits of X4
- 4 Nine times a prime number
- 7 Last two digits are the same as X24
- 9 First two digits are the same as first two digits of X21
- 13 Last two digits are the same as Y12
- 15 Sum of the digits of X18
- 18 Is a prime number
- 21 Ten times a prime number
- 24 Digits are in consecutive descending order
- 25 Five times Y19
- 26 Forty-two times Z22

Y Direction

- 1 Fifty-one times a square
- 2 Last two digits are the same as Y19
- 3 Six times a prime number
- 11 Three hundred twenty-one less than Y16
- 12 Same as Y14
- 14 Digits are the same as last two digits of X13
- 16 Twice a prime number
- 17 Eleven times X13
- 19 Is a prime number
- 23 First and fourth digits are the same
- 24 Digits are the same as first three digits of Y17
- 25 Is a prime number

Z Direction

- 1 Z7 plus Z20
- 3 First two digits are the same as Z5
- 4 X1 minus Z22
- 5 Is a prime number
- 6 Sixty-six times a square
- 7 Two thousand six hundred seventy-six more than Z9
- 8 Twenty-five times a prime number
- 9 Thirty-three times a prime number
- 10 Eight times a prime number
- 20 Five times Z22
- 22 Is a prime number

Solution is on next page

Solution:

9	8	8
9	8	1
9	7	6
6	1	6

3	■	9
6	9	0
2	0	■
5	■	0

3	■	7
9	■	5
4	7	9
6	1	0

8	■	8
■	7	6
3	5	5
7	9	8