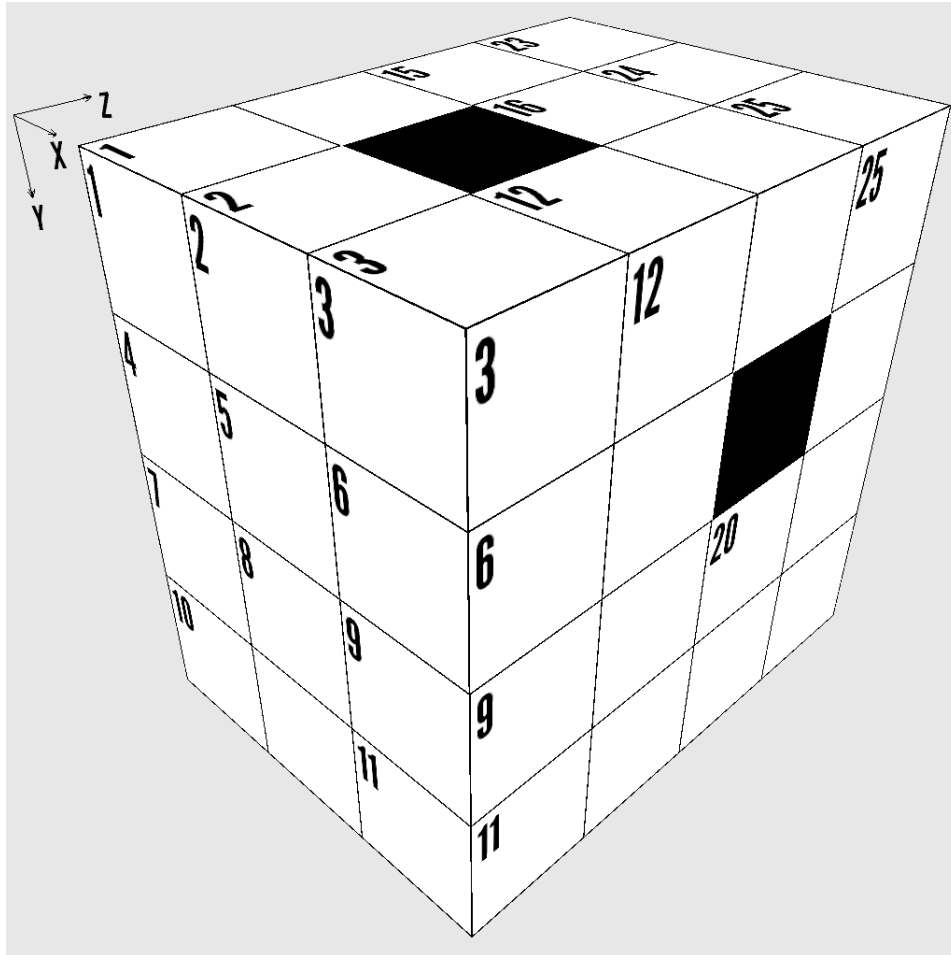


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 63



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

Clues:

X Direction

- 1 Last two digits are the same as Y24
- 4 Rearranged digits of X15
- 7 Seven times Z16
- 10 First two digits are the same as first two digits of X15
- 13 Z5 reversed
- 14 Twenty times a prime number
- 15 First two digits are the same as Y19
- 18 Is a square
- 21 Average of X14 and Y19
- 23 Twelve times Y19
- 26 First two digits are the same as Y13
- 27 Fourteen times Y13

Y Direction

- 1 First two digits are the same as first two digits of Z1
- 2 Last two digits are the same as last two digits of X10
- 3 Seventy-four times X13
- 12 Is a prime number
- 13 Digits are in consecutive descending order
- 14 Is a prime number
- 15 Seven times a prime number
- 19 Digits are the same as first two digits of X10
- 20 Twice a prime number
- 23 Forty-nine times a prime number
- 24 Digits are in consecutive order
- 25 Fourteen times a prime number

Z Direction

- 1 One thousand one hundred sixteen more than Y12
- 3 Rearranged digits of Z11
- 5 Digits are the same as first two digits of X27
- 6 Half of Y13
- 7 First two digits are the same as X13
- 8 Twice a prime number
- 9 Twice X26
- 10 Thirty-three times a prime number
- 11 First two digits are the same as first two digits of X4
- 16 Is a prime number
- 17 Digits are in consecutive descending order
- 22 X13 plus Y19

Solution is on next page

Solution:

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

8	■	8
■	5	7
7	4	0
9	■	7

2	8	7
6	■	■
5	2	9
3	8	4

3	3	6
5	4	9
7	■	8
7	5	6