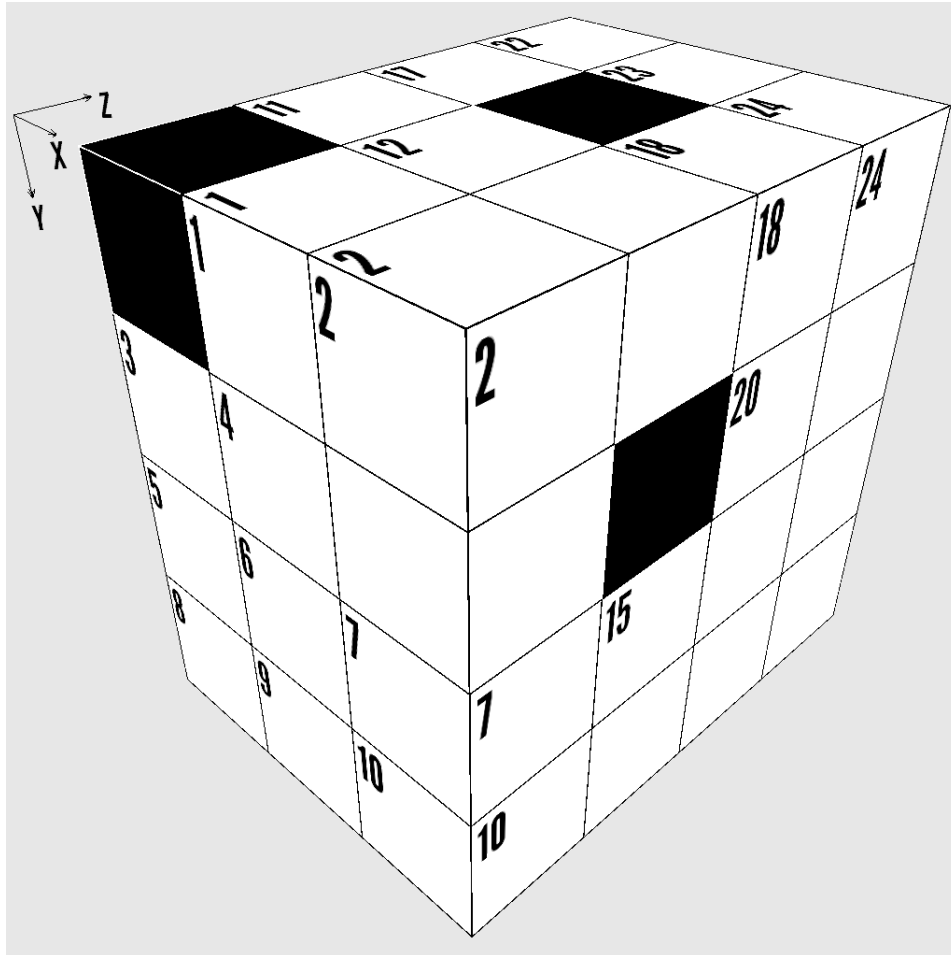


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 56



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	4	
5	6	7
8	9	10

11	12	
13		15
14		15
16	16	

17	18	
19		20
	21	
21		

22	23	24
25		
26	26	
27		

Clues:

X Direction

- 1 Digits are the same as last two digits of Z4
- 3 Y3 minus X16
- 5 First two digits are the same as first two digits of X11
- 8 One-third of X14
- 11 Thirty-eight times Z21
- 13 X19 minus X1
- 14 Last two digits are the same as Z1
- 16 Sum of the digits of Y1
- 19 Is a prime number
- 21 One-fourth of X5
- 22 Z7 divided by X16
- 25 First two digits are the same as first two digits of X19
- 26 X25 minus X8
- 27 Eighty times Z20

Y Direction

- 1 Last two digits are the same as last two digits of Y2
- 2 Last two digits are the same as Y15
- 3 Is a prime number
- 11 First two digits are the same as first two digits of Z3
- 12 Last two digits are the same as X13
- 15 One-eighth of X5
- 17 Z9 minus X1
- 18 Sixteen times a prime number
- 22 Is a prime number
- 23 Forty times Z1
- 24 Eighty times a prime number

Z Direction

- 1 Digits are in consecutive descending order
- 2 X3 plus Z7
- 3 Is a prime number
- 4 Is a prime number
- 5 Is a prime number
- 6 Is a prime number
- 7 Twenty-six times X22
- 9 Thirty-three times X25
- 10 First two digits are the same as first two digits of Y3
- 11 First two digits are the same as first two digits of Y3
- 20 Digits are in consecutive descending order
- 21 Sum of the digits of X1

Solution is on next page

Solution:

	9	9
6	3	5
6	8	8
1	6	6

6	8	4
9	2	
4	9	8
	2	6

6		4
1	9	1
7		1
1	7	2

3	3	9
1	9	0
	2	4
8	0	0