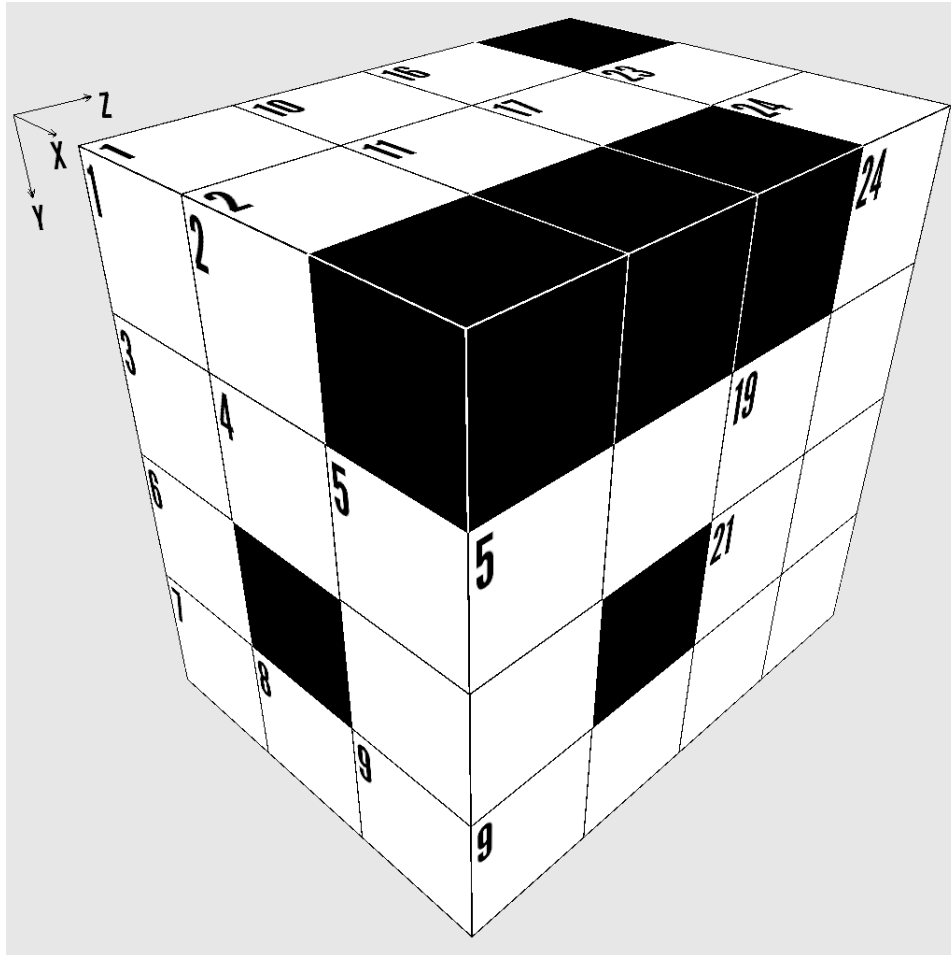


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 14



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		10	11		16	17			23	24
3	4	5	12			18		19		25	
6			13	14		20		21	26		
7	8	9	15			22			27		

Clues:

X Direction

- 1 Sum of the digits of X22
- 3 Digits are in consecutive order
- 7 First two digits are the same as first two digits of X3
- 10 Is a prime number
- 12 X22 minus Z1
- 13 Digits are the same as last two digits of Y10
- 15 Digits are in consecutive descending order
- 16 Average of X23 and Y26
- 18 X23 plus Y2
- 20 Last two digits are the same as last two digits of Y17
- 22 Last two digits are the same as last two digits of Y19
- 23 Digits are in consecutive descending order
- 25 X13 minus Y2
- 26 Last two digits are the same as last two digits of X7
- 27 Forty-one times X10

Y Direction

- 1 First two digits are the same as X10
- 2 Two-fifths of X25
- 5 Last two digits are the same as last two digits of X7
- 10 Eight times X7
- 11 Last two digits are the same as last two digits of X27
- 16 Last two digits are the same as Y26
- 17 Is a prime number
- 19 Eight times X1
- 23 Last two digits are the same as last two digits of Z6
- 24 Nine times a prime number
- 26 Is a square

Z Direction

- 1 First two digits are the same as X1
- 2 First two digits are the same as X10
- 3 X7 plus X10
- 4 Four times a prime number
- 5 Thirty times a prime number
- 6 Four times a prime number
- 7 Is a prime number
- 8 First two digits are the same as first two digits of X15
- 9 Is a prime number
- 14 Eighteen times X10
- 21 Digits are in consecutive order

Solution is on next page

Solution:

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