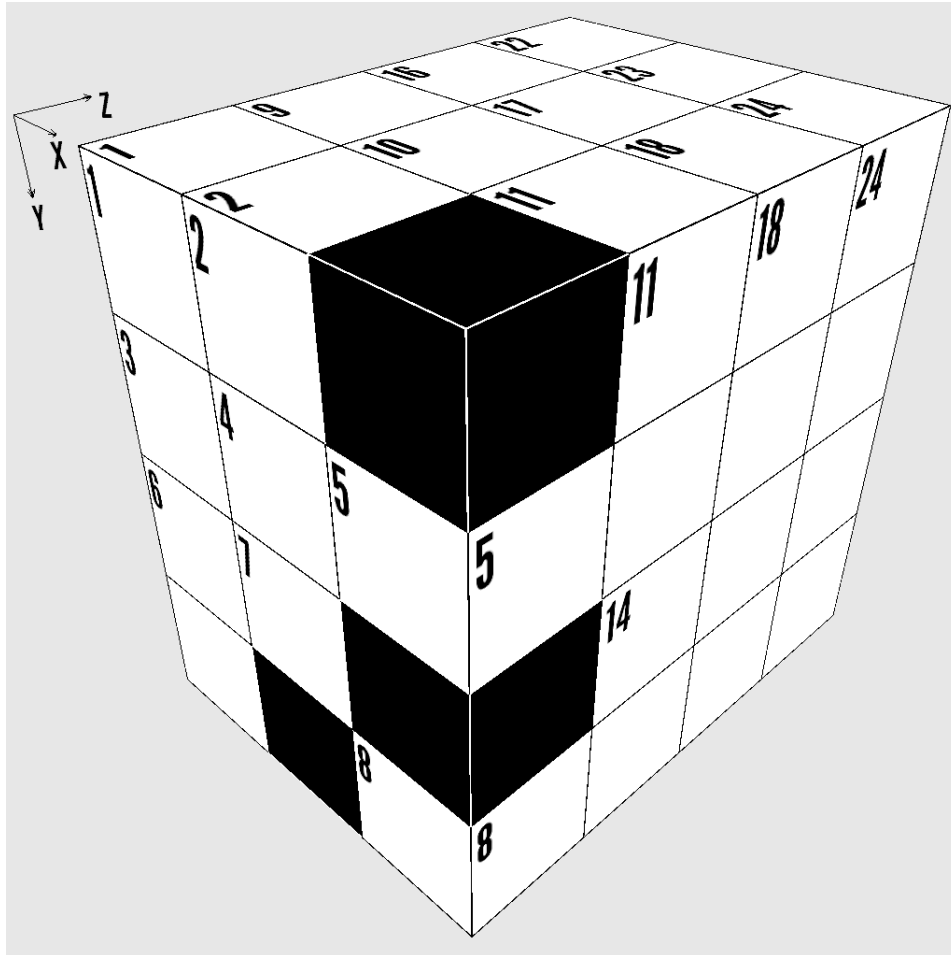


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 41



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

Clues:

X Direction

- 1 Digits are in consecutive descending order
- 3 X21 minus Y20
- 6 Is a square
- 9 Rearranged digits of Z11
- 12 Five times X6
- 13 Fourteen times X26
- 15 Four times a prime number
- 16 X6 plus X25
- 19 Digits are in consecutive descending order
- 20 First two digits are the same as first two digits of Z1
- 21 First two digits are the same as X26
- 22 Same as Z6
- 25 Last two digits are the same as X1
- 26 Is a prime number
- 27 Is a prime number

Y Direction

- 1 First two digits are the same as Y20
- 2 Eighteen times a prime number
- 9 Is a prime number
- 10 Seventy-seven times X15
- 11 Twenty-four times a prime number
- 17 Is a prime number
- 18 Is a prime number
- 20 Digits are in consecutive order
- 22 Is a prime number
- 23 Last two digits are the same as X26
- 24 Is a prime number

Z Direction

- 1 Last two digits are the same as last two digits of Z7
- 2 Is a prime number
- 3 Digits are the same as last two digits of Y1
- 4 Fifty-one times a square
- 5 Last two digits are the same as X6
- 6 Five times a prime number
- 7 One thousand five hundred less than Z1
- 8 First two digits are the same as first two digits of X20
- 11 X16 plus X26
- 14 Seven times a square
- 15 Is a prime number
- 21 Average of X6 and X15

Solution is on next page

Solution:

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