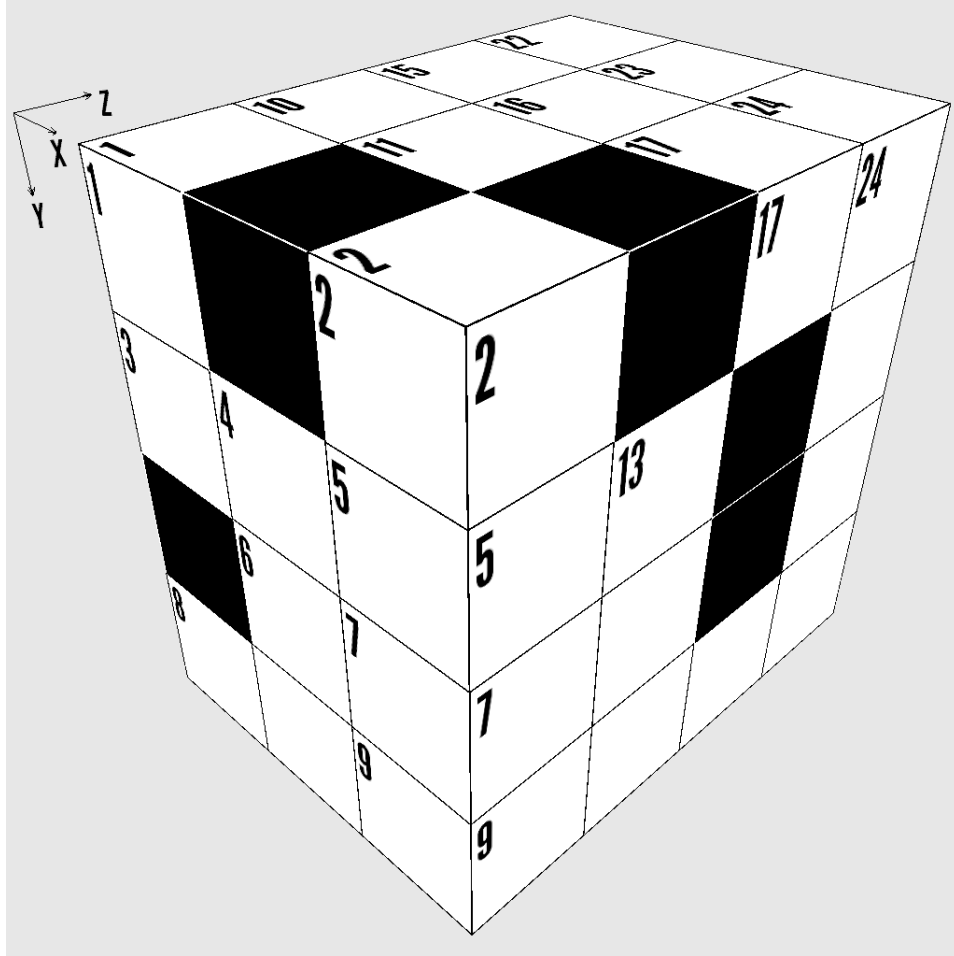


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 32



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

Clues:

X Direction

- 3 Last two digits are the same as X19
- 6 Five times a prime number
- 8 Twenty-three times X10
- 10 Digits are the same as first two digits of Y10
- 12 First two digits are the same as first two digits of Y11
- 14 Eleven times X10
- 15 Last two digits are the same as last two digits of Y13
- 18 Digits are the same as last two digits of Z3
- 19 One-fourth of X22
- 20 Twice Y10
- 22 Last two digits are the same as Z7
- 25 Twelve times Z5
- 26 First two digits are the same as first two digits of Z1
- 27 Eleven times X10

Y Direction

- 1 Digits are the same as first two digits of Z9
- 2 Forty-two times Y1
- 4 Fifteen times X10
- 10 First two digits are the same as first two digits of Y24
- 11 First two digits are the same as first two digits of Y16
- 13 Y16 minus Y2
- 15 First two digits are the same as first two digits of Z4
- 16 First two digits are the same as first two digits of X12
- 22 Y24 minus Y4
- 23 Five hundred seven less than Z1
- 24 First two digits are the same as X10

Z Direction

- 1 Ninety-three times a prime number
- 3 First two digits are the same as Z17
- 4 Seven times a prime number
- 5 Is a square
- 6 Last two digits are the same as Z17
- 7 Average of X10 and Z17
- 9 Last two digits are the same as last two digits of X14
- 11 Is a square
- 14 Four times a prime number
- 17 One-fourth of X15
- 20 Digits are the same as last two digits of X14
- 21 Twice X10

Solution is on next page

Solution:

6		2
8	3	8
	3	5
5	0	6

2	2	
2	9	1
2	4	2
		8

3	2	8
9	9	
3	8	
4	4	4

1	5	2
9	7	2
6	2	9
2	4	2