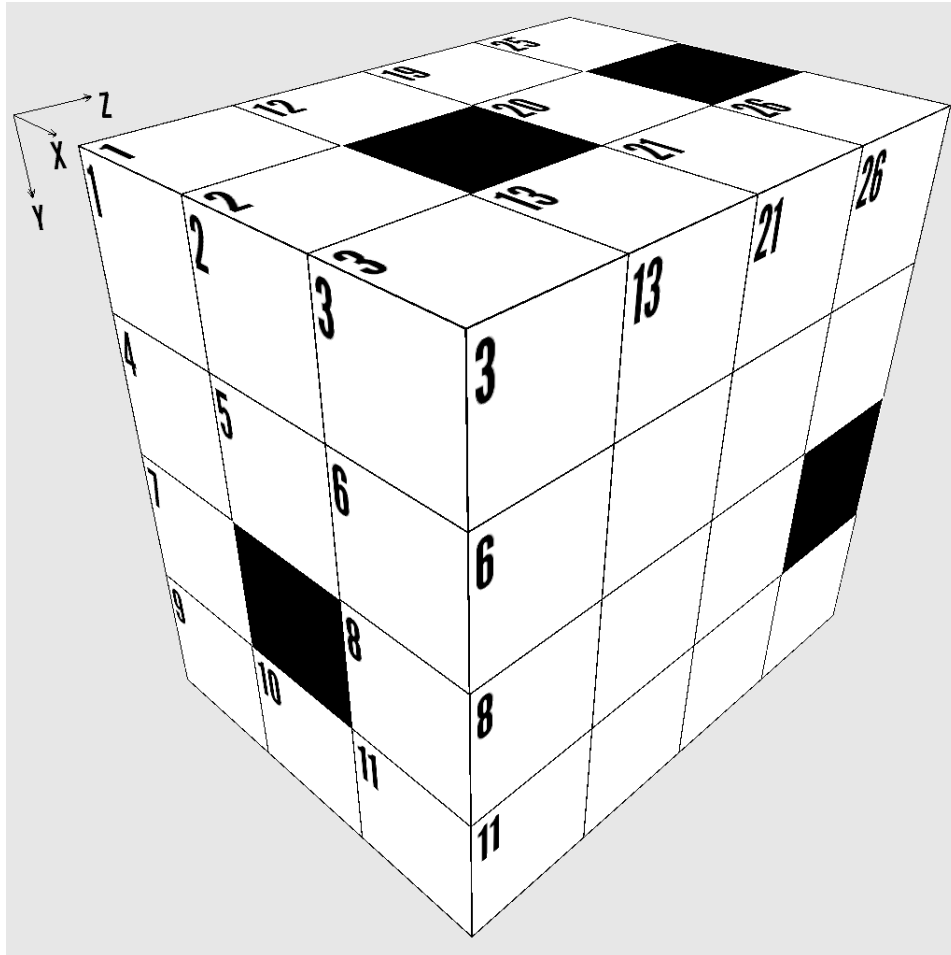


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 29



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		13	19	20	21	25		26
4	5	6	14	15		22					
7		8	16	17		23			27	28	
9	10	11		18		24			29		

Clues:

X Direction

- 1 Is a prime number
- 4 First two digits are the same as Y2
- 9 Last two digits are the same as last two digits of Y13
- 14 Thirty-one times Y28
- 16 Thirty-six times X27
- 18 Digits are in consecutive order
- 19 First two digits are the same as first two digits of Y19
- 22 Digits are the same as first three digits of Y20
- 23 Is a prime number
- 24 Last two digits are the same as last two digits of Y21
- 27 Digits are in consecutive descending order
- 29 Is a prime number

Y Direction

- 1 First two digits are the same as first two digits of X1
- 2 Five times a prime number
- 3 Last two digits are the same as last two digits of X4
- 12 Y1 minus Z5
- 13 First two digits are the same as X27
- 15 First two digits are the same as X18
- 19 Is a prime number
- 20 Is a prime number
- 21 Rearranged digits of Y25
- 25 Twice a prime number
- 26 Digits are the same as first two digits of X16
- 28 Is a prime number

Z Direction

- 1 Fifty-one times Z24
- 3 Z1 minus Z8
- 4 Last two digits are the same as last two digits of X23
- 5 Z8 minus X27
- 6 Last two digits are the same as last two digits of X9
- 7 Ninety-eight times a prime number
- 8 Is a prime number
- 10 Is a prime number
- 11 Is a prime number
- 17 First two digits are the same as first two digits of X9
- 24 Is a square

Solution is on next page

Solution:

1	3	1
3	5	5
8	■	5
5	6	5

8	■	2
3	4	1
7	5	6
■	4	5

3	6	6
6	8	6
2	6	9
3	9	2

6	■	7
9	■	5
2	1	■
6	1	7