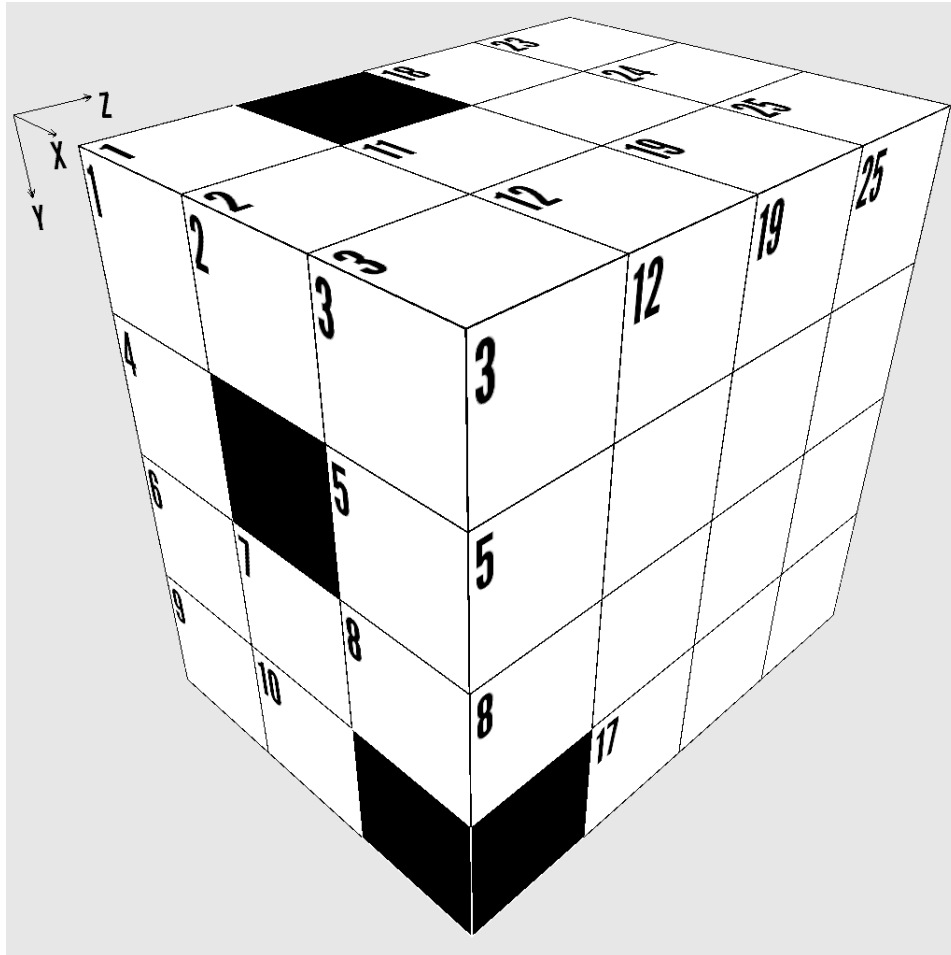


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 48



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		11	12	18		19	23	24	25
4		5	13						26		
6	7	8	14	15		20	21		27		
9	10			16	17	22			28		

Clues:

X Direction

- 1 First two digits are the same as first two digits of Y24
- 6 Three times a prime number
- 9 Three times a prime number
- 11 Twice Y7
- 14 Is a prime number
- 16 Digits are the same as last two digits of Y12
- 18 Seventeen times X9
- 20 X22 minus Y15
- 22 Three times a square
- 23 Twenty-three times Y7
- 26 Is a prime number
- 27 First two digits are the same as first two digits of Y19
- 28 Is a prime number

Y Direction

- 1 Fifteen times a prime number
- 3 Is a prime number
- 7 Is a prime number
- 12 Twice a prime number
- 13 Digits are the same as first two digits of Y3
- 15 Is a prime number
- 18 Fifteen times a prime number
- 19 Last two digits are the same as Z18
- 21 Digits are the same as last two digits of Z7
- 23 First and third digits are the same
- 24 Twenty-one times X11
- 25 Is a prime number

Z Direction

- 2 Average of X28 and Z5
- 3 Is a prime number
- 4 Z5 minus Z22
- 5 Thirty-three times a prime number
- 6 Eleven times a prime number
- 7 First two digits are the same as Y7
- 8 Twenty-two times a prime number
- 10 Last two digits are the same as last two digits of X27
- 17 Three times a prime number
- 18 Digits are in consecutive descending order
- 22 Two-thirds of Z18

Solution is on next page

Solution:

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