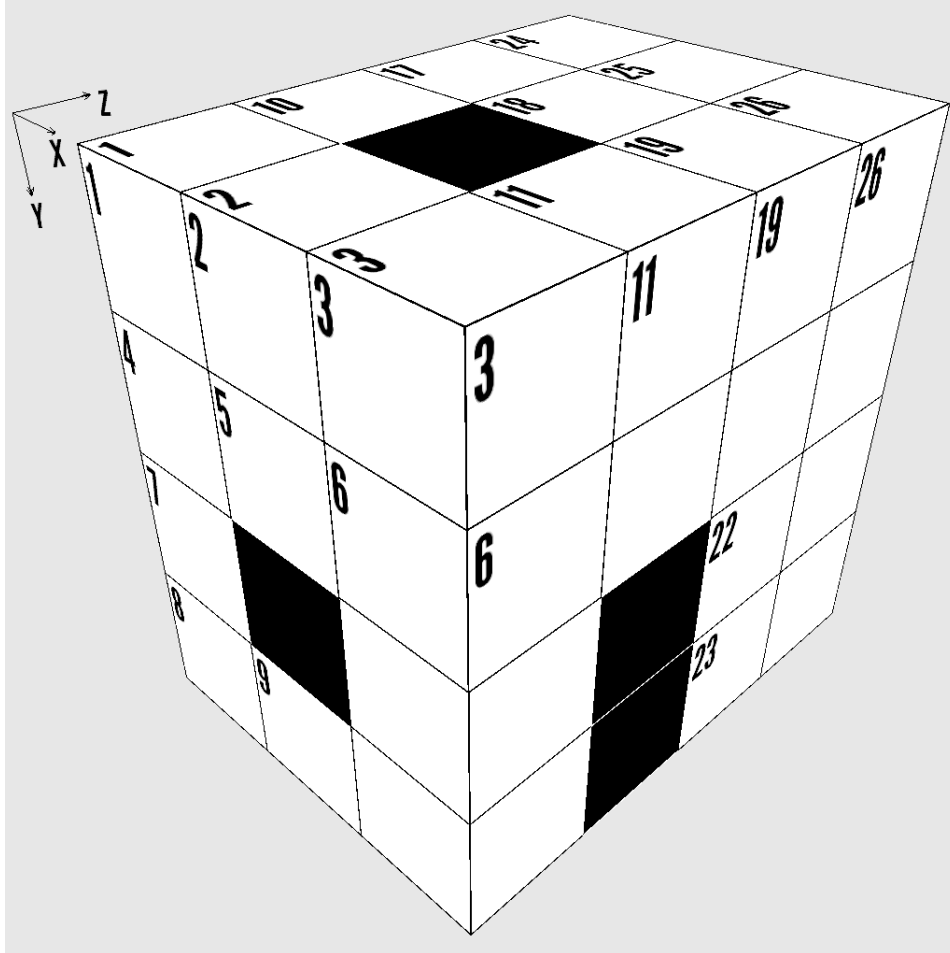


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 1



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

Clues:

X Direction

- 1 Eleven times a prime number
- 4 Is a prime number
- 8 Last two digits are the same as Z9
- 12 Twice a prime number
- 14 Digits are the same as first two digits of Y26
- 16 Y13 minus Z23
- 17 First two digits are the same as first two digits of X21
- 20 Digits are in consecutive order
- 21 Six times a prime number
- 24 Last two digits are the same as last two digits of Z1
- 27 Nine times Y25
- 28 Thirty times Y2

Y Direction

- 1 Sixty-nine times Y13
- 2 Sum of the digits of X4
- 3 Fifty-seven times Z9
- 10 One thousand four hundred sixty-three more than Y3
- 11 Digits are in consecutive descending order
- 13 Five times Z22
- 17 First two digits are the same as Y25
- 18 Is a square
- 19 Three hundred ninety less than Y1
- 24 Eight times a prime number
- 25 Is a prime number
- 26 Sixty-five times Y11

Z Direction

- 1 Four times a prime number
- 3 Twice a prime number
- 4 Fourteen times a prime number
- 5 Fifty-three times a prime number
- 6 First three digits are the same as X20
- 7 Thirty-six times a prime number
- 8 Fourteen times a prime number
- 9 Digits are in consecutive descending order
- 15 Digits are in consecutive order
- 18 Is a square
- 22 Sum of the digits of Z6
- 23 Twice a square

Solution is on next page

Solution:

9	1	3
3	4	7
1	■	0
5	6	5

5	■	9
1	1	8
6	3	■
8	5	■

9	4	8
7	8	9
9	4	2
9	■	5

6	9	6
8	7	3
2	■	7
4	2	0