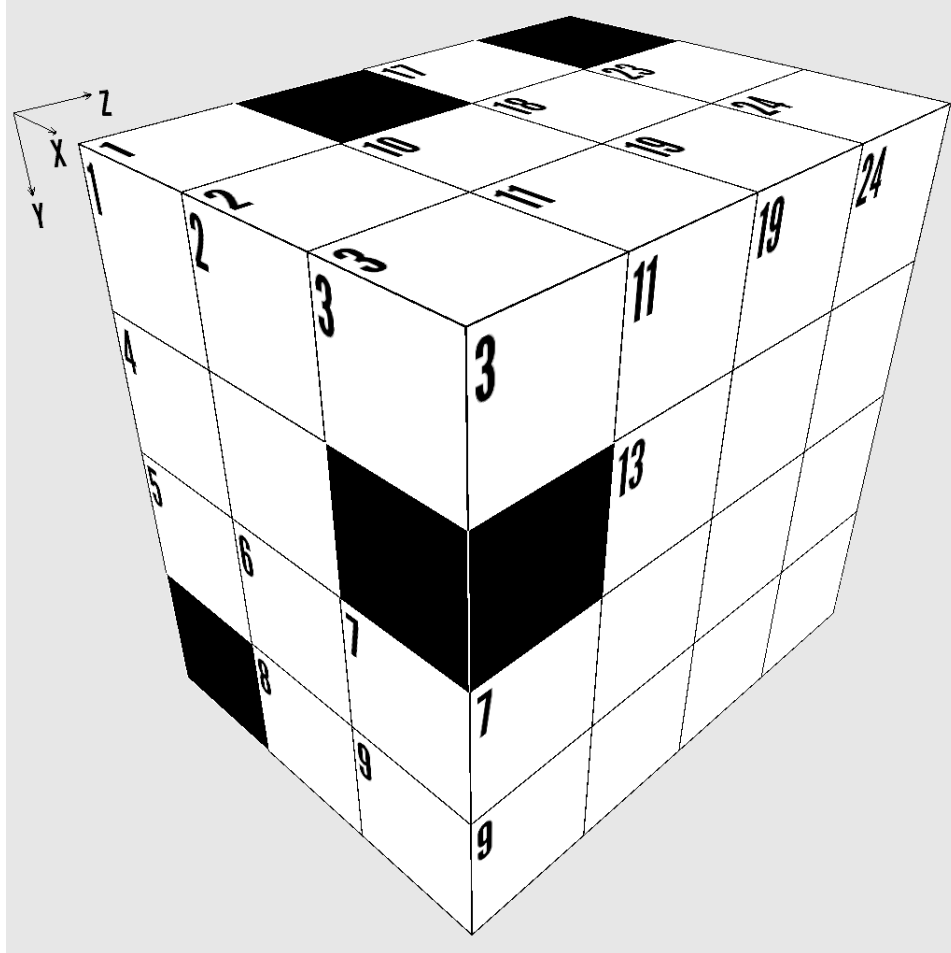


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 34



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

Clues:

X Direction

- 1 Twenty-two times X22
- 4 Is a prime number
- 5 Is a prime number
- 8 Is a prime number
- 10 Is a prime number
- 14 Last two digits are the same as last two digits of Y24
- 16 Twice a prime number
- 17 $X4 + Z20$
- 20 $X1 - X27$
- 21 Last two digits are the same as last two digits of Y2
- 22 Is a prime number
- 23 Digits are in consecutive descending order
- 25 Forty-one times X22
- 26 Is a prime number
- 27 Twelve times Y15

Y Direction

- 1 Twice a prime number
- 2 Is a prime number
- 7 Is a prime number
- 11 Ninety-eight times X8
- 12 $Y25 - X10$
- 15 Is a square
- 18 Is a prime number
- 19 Last two digits are the same as last two digits of Y18
- 23 First two digits are the same as X23
- 24 Last two digits are the same as last two digits of Z9
- 25 First two digits are the same as first two digits of Y2

Z Direction

- 2 Eight times a prime number
- 3 Seventy-five times a prime number
- 4 Twice a prime number
- 5 Seven times a prime number
- 6 Ten times a prime number
- 7 Last two digits are the same as last two digits of Y18
- 8 First two digits are the same as first two digits of Y11
- 9 Last two digits are the same as last two digits of X14
- 13 Is a prime number
- 20 Five times X22

Solution is on next page

Solution:

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