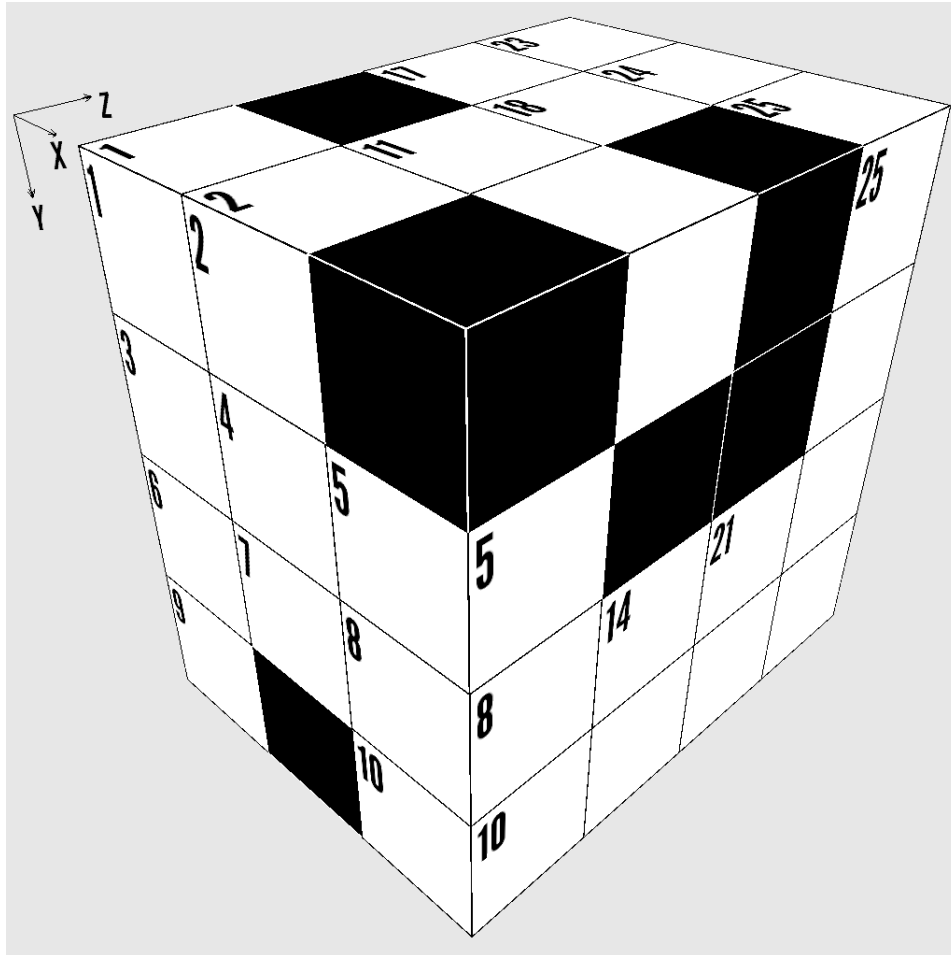


Difficulty: ★★☆☆☆

3D Math Puzzle - 3x4x4 Box 35



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			11		17	18		23	24	25
3	4	5	12			19			26		
6	7	8	13		14		20	21	27		
9		10	15	16		22			28		

Clues:

X Direction

- 1 Digits are the same as last two digits of Y12
- 3 X12 plus X23
- 6 Is a prime number
- 11 Digits are in consecutive descending order
- 12 Digits are in consecutive order
- 13 Twenty-three times X11
- 15 Fourteen times X1
- 17 Digits are in consecutive descending order
- 19 Is a prime number
- 20 Digits are in consecutive order
- 22 Five times X17
- 23 Twelve times X11
- 26 First two digits are the same as first two digits of Z3
- 27 X28 plus Y12
- 28 Is a prime number

Y Direction

- 1 Twenty-six times a prime number
- 2 X3 plus X28
- 5 Three times a prime number
- 11 Fifty-four times X1
- 12 First two digits are the same as X12
- 14 Digits are in consecutive order
- 17 Average of X20 and Y21
- 18 Is a prime number
- 21 Y12 minus X3
- 23 Six times X6
- 24 Sixty times X19
- 25 First two digits are the same as first two digits of X23

Z Direction

- 2 Five times a prime number
- 3 Six times a prime number
- 4 Fifty-seven times a prime number
- 6 Digits are in consecutive order
- 7 Last two digits are the same as X17
- 8 Z10 minus X12
- 9 Eleven times a square
- 10 Last three digits are the same as X28
- 16 Last two digits are the same as last two digits of X22
- 17 Digits are the same as last two digits of X23

Solution is on next page

Solution:

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