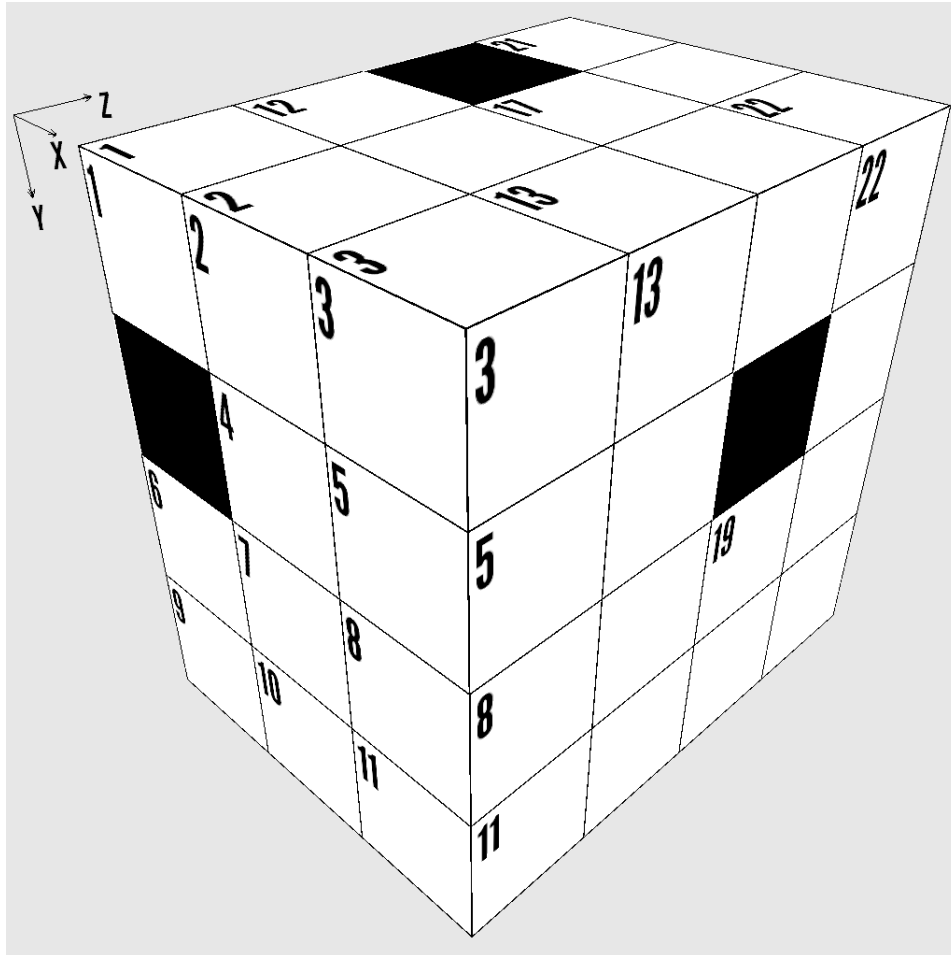


Difficulty: ★★☆☆☆

## 3D Math Puzzle - 3x4x4 Box 33



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

**Clues:**

**X Direction**

- 1 Last two digits are the same as X4
- 4 Is a prime number
- 6 First two digits are the same as X16
- 9 X25 minus X14
- 12 Eight times a prime number
- 14 X1 plus Y18
- 16 Same as Y6
- 17 Digits are the same as first two digits of Z11
- 18 Last two digits are the same as last two digits of Y17
- 20 Twenty-three times X4
- 21 Average of X1 and Z5
- 23 First two digits are the same as first two digits of Y17
- 25 First two digits are the same as Z5

**Y Direction**

- 2 Eighty-three times Y18
- 3 Thirty-six times a prime number
- 6 Digits are the same as first two digits of X6
- 12 Z7 divided by Y18
- 13 Eighty-eight times a prime number
- 15 Twice X4
- 17 Is a prime number
- 18 Sum of the digits of X16
- 19 Is a prime number
- 21 First two digits are the same as first two digits of X23
- 22 Seventy-nine times Z5
- 24 Is a square

**Z Direction**

- 1 Digits are in consecutive order
- 2 Seventy times X17
- 3 Last three digits are the same as X6
- 5 Five times X4
- 6 Eight times a prime number
- 7 Fourteen times Y12
- 8 Ten times a prime number
- 10 Thirty-five times a square
- 11 Twenty-five times a prime number
- 20 Is a square

**Solution is on next page**

Solution:

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