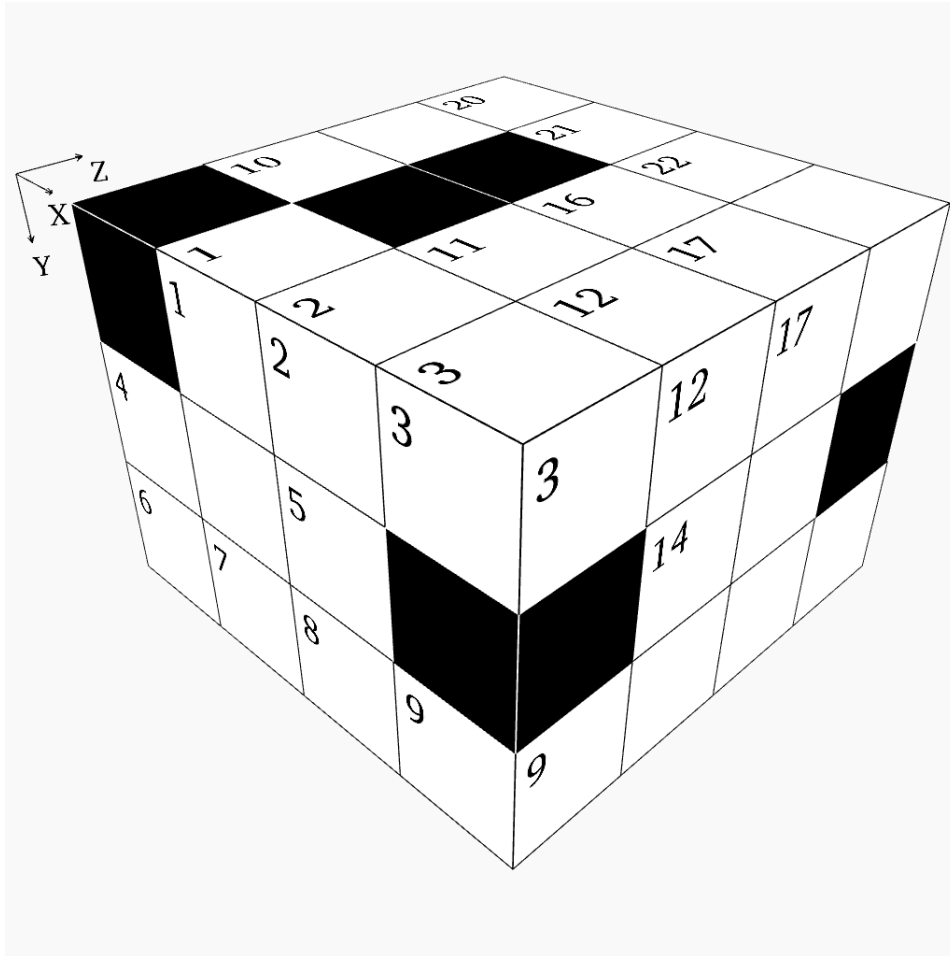


Difficulty: ★★☆☆☆

## Box - Challenging Puzzle #46



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" in the X direction read from left to right.
3. "Words" in the Y direction read from top to bottom.
4. "Words" in the Z direction read from front to back.
5. There is one unique solution which satisfies all the clues given below.
6. Some "words" may not have clues. They will be determined by the "words" which intersect them.

If we take the box pictured above and divide it into individual X-Y layers, we will get these planes:

1	2	3	10	11	12	16	17	20	21	22	
4		5	13	14	18			23			
6	7	8	9	15		19			24		

**X Direction**

- 1 Fifty-one times a prime number
- 4 Mean of Z18 and X18
- 6 Five hundred fifty-one more than Z5
- 11 Z14 minus X13
- 13 Half of Y22, then subtract Z10
- 15 X1 plus Y18
- 16 Z2 divided by Y12
- 18 Twice a prime number
- 19 First two digits are the same as Y18
- 20 Sixty-nine times a prime number
- 23 Twice a prime number
- 24 Four times a prime number

**Y Direction**

- 1 Fourteen times a prime number
- 2 Fifty-seven times X16
- 4 Y16 minus half of Z6
- 10 Half of X23, then subtract Y21
- 11 Mean of Y22 and Z10
- 12 X19 divided by eight
- 16 Three times a prime number
- 17 Same as Y21
- 18 Consecutive digits in ascending order
- 20 Z7 divided by Y17
- 21 Last two digits are the same as last two digits of X18
- 22 Twice a prime number

**Z Direction**

- 2 Eight hundred eighty-two less than Z8
- 3 A prime number
- 4 X4 divided by eight
- 5 Twice a prime number
- 6 Mean of X4 and Z10
- 7 Y20 times Y21
- 8 Z9 minus X4
- 9 Twelve times a prime number
- 10 A square
- 14 X24 minus Z10
- 18 Six times a prime number

**Solution:**

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