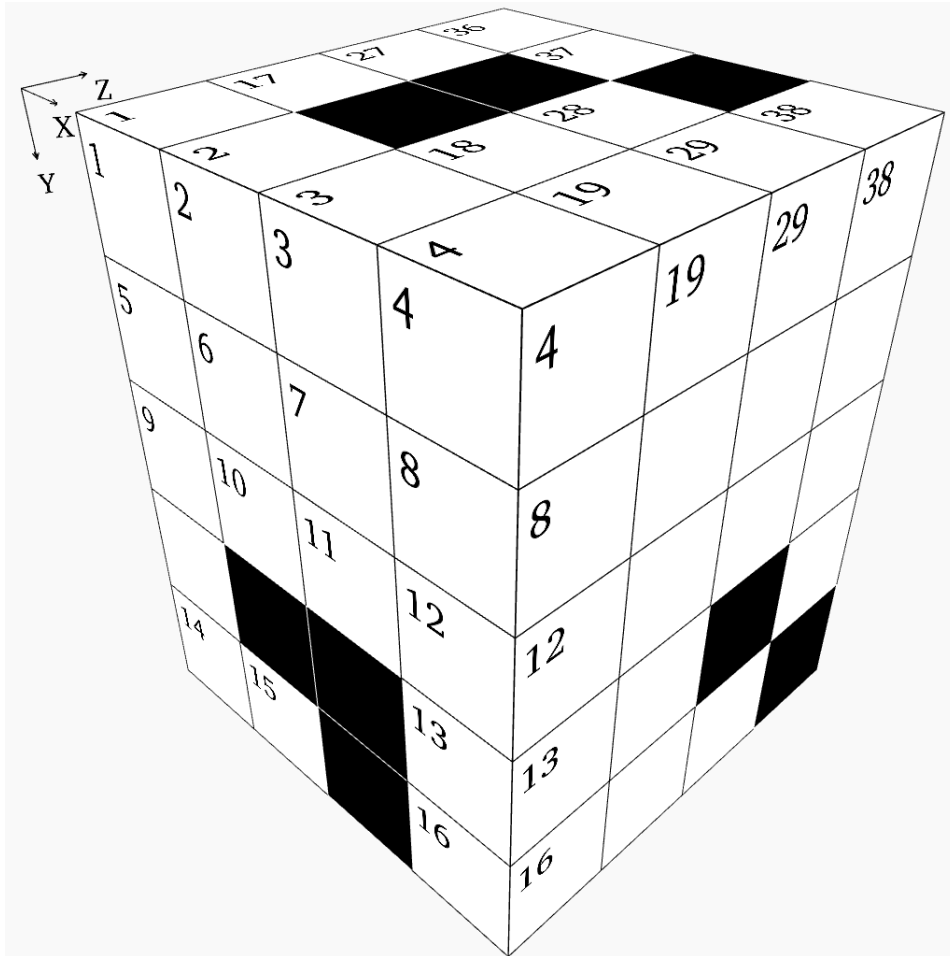


Difficulty: ★★☆☆☆

## Box - Challenging Puzzle #39



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:

- "Words" may not start with a zero.
- "Words" in the X direction read from left to right.
- "Words" in the Y direction read from top to bottom.
- "Words" in the Z direction read from front to back.
- There is one unique solution which satisfies all the clues given below.
- 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	4	17		18	19	27		28	29	36	37		38
5	6	7	8	20	21			30	31				39		
9	10	11	12	22				32				40			
			13		23	24		33		34		41		42	
14	15		16	25		26		35					43		

**X Direction**

- 1 Y3 times X14
- 5 Z1 minus Z4
- 9 One thousand five hundred twenty less than Y38
- 14 Z13 plus Y42
- 18 X28 plus X14
- 20 Y4 divided by X28
- 22 Fifty-five times Z11
- 23 A prime number
- 25 Mean of X41 and Z26
- 28 X14 minus Y42
- 30 A prime number
- 32 Mean of X18 and Y31
- 35 Z12 plus Y21
- 36 Twice a prime number
- 39 Four times a prime number
- 40 A cube
- 41 Seven times a prime number
- 43 Mean of Y34 and X40

**Y Direction**

- 1 Thirty-six times a prime number
- 2 A prime number
- 3 Mean of X40 and Y2
- 4 X20 times Z13
- 17 Four times a prime number
- 18 Its digits total Z33
- 19 Seventy-two times a prime number
- 21 Eight times a prime number
- 27 Consecutive digits unordered
- 28 X14 minus Y42
- 29 Twenty-three times a prime number
- 31 A square
- 34 Z11 minus Y31
- 37 Six thousand three hundred twenty less than Y19
- 38 A prime number
- 40 Same as Z33
- 42 Z3 divided by thirty-one

**Z Direction**

- 1 Twenty-one times a prime number
- 3 Mean of Y2 and X43
- 4 Twice a prime number
- 5 Half of Y1, then subtract Y37
- 6 Its digits total Y28
- 7 Seven times a prime number
- 8 Twenty-four times a prime number
- 9 Twice the result of X22 plus Z8
- 10 Its digits total Y34
- 11 Mean of X18 and X32
- 12 Four hundred fifty-eight more than Z4
- 13 X18 minus X14
- 14 Last two digits are the same as Y34
- 15 Eighteen times a prime number
- 16 X39 plus half of Y17
- 24 Seven times a prime number
- 26 Twenty-three times a prime number
- 33 Mean of X28 and X40

**Solution:**

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