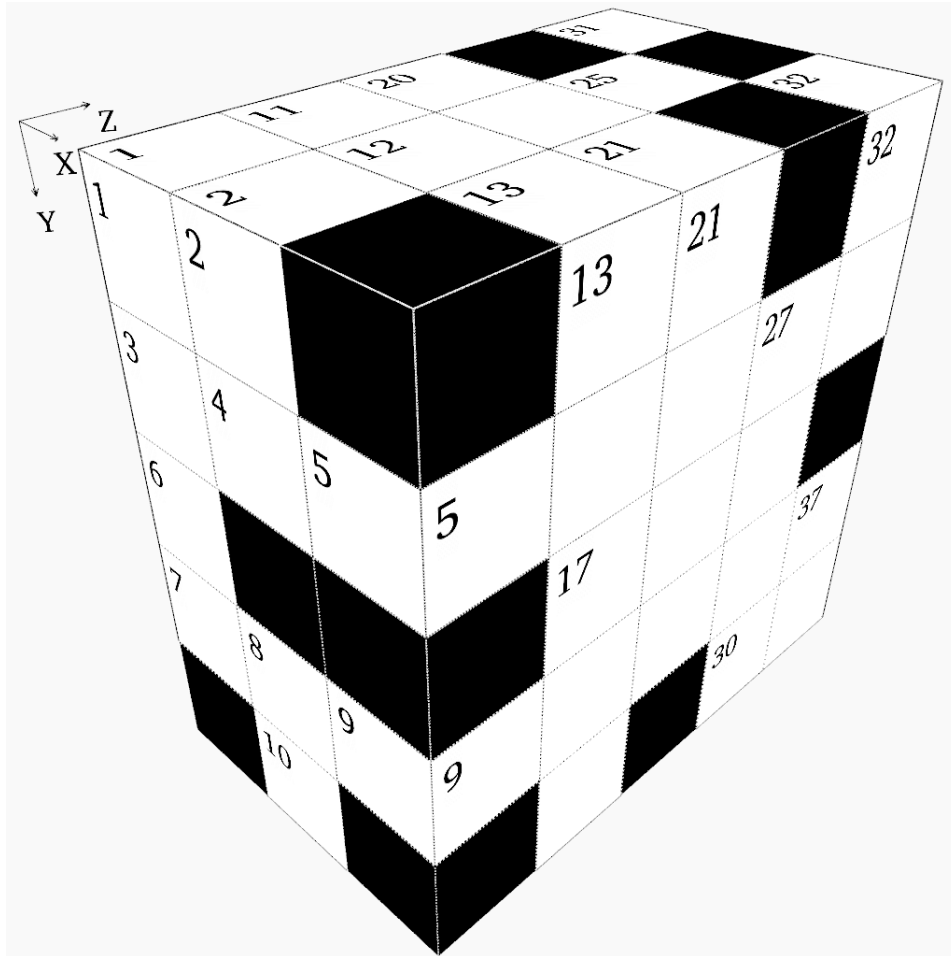


Difficulty: ★★☆☆☆

Box - Challenging Puzzle #25



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		11	12	13	20		21		25		31		32
3	4	5	14							26	27	33	34	
6			15	16	17	22	23			28		35		
7	8	9	18			24				29		36		37
	10		19								30	38		

X Direction

- 1 Six times Z13
- 3 Y25 divided by five
- 7 Eleven times X35
- 11 X19 minus Z13
- 14 Twice the result of X38 plus X1
- 15 Mean of Z6 and Z1
- 18 Z3 reversed
- 19 Mean of Z6 and X33
- 20 X22 minus Z30
- 22 Rearranged digits of Z17
- 24 Seventy-two less than X22
- 26 Y2 plus X28
- 28 A square
- 29 Twice a prime number
- 33 A prime number
- 35 Y32 minus half of Z30
- 36 A prime number
- 38 Ten times a prime number

Y Direction

- 1 A prime number
- 2 Z4 reversed
- 8 A prime number
- 11 Six times a prime number
- 12 Sixteen thousand one hundred forty-nine more than Z5
- 13 One hundred eighty-four more than Z7
- 20 Half of Y11, then subtract Y13
- 21 Z2 minus X24
- 23 X19 plus half of X7
- 25 Mean of Y1 and X15
- 27 A prime number
- 31 First two digits are the same as Y2
- 32 Mean of X35 and Y2
- 34 Nine times a prime number
- 37 Twice the result of X36 minus Z4

Z Direction

- 1 Mean of Z16 and X26
- 2 Twice a prime number
- 3 X22 plus Z13
- 4 A square
- 5 Z8 plus Y8
- 6 Three times a prime number
- 7 Thirteen times a prime number
- 8 Fifty times a prime number
- 9 Eleven times a prime number
- 10 Mean of Z30 and X7
- 13 Z30 minus X35
- 16 Four times a prime number
- 17 Twice the result of X33 minus X29
- 26 Mean of X1 and X26
- 30 Y2 minus X35

Solution:

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