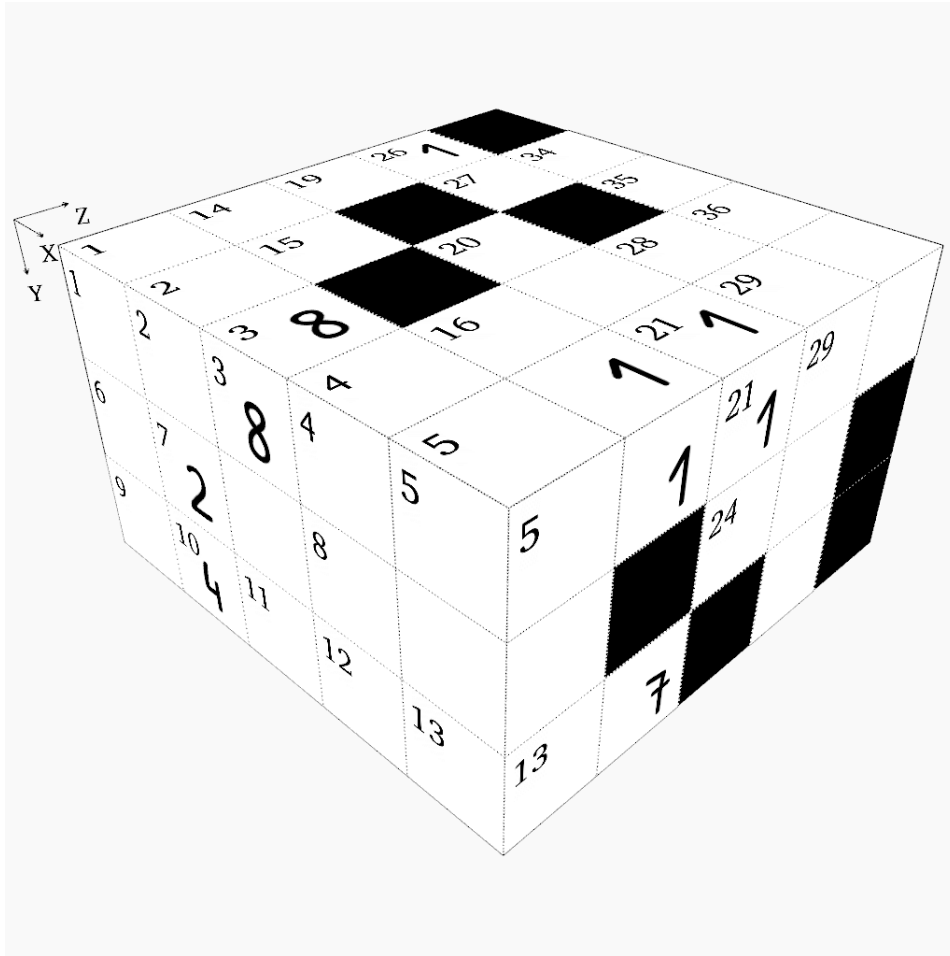


Difficulty: ☆☆☆☆☆

Box - Beginner Puzzle #8



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	4	5	14	15	16	19	20	21
		8					1			1
6	7		8		17			22	23	24
	2				9			0		
9	10	11	12	13	18	4	7		25	
	4						7			
26	27	28	29	34	35	36				
1										
30		31	32	37						
		9		1						
	33									
	4									

X Direction

- 1 Sixty-three times a prime number
- 6 Ten times a prime number
- 9 Thirty-four times a prime number
- 14 Y5 divided by eight
- 16 Y35 minus half of X17
- 17 X20 minus Y37
- 18 A prime number
- 20 Three-fifths of Y1
- 22 X25 plus Y3
- 25 Y29 divided by fifty-four
- 26 X16 minus Y26
- 28 Y4 minus Z2
- 30 Six times a prime number
- 33 First two digits are the same as first two digits of Z23
- 34 Three times a prime number
- 37 Y27 plus Y3

Y Direction

- 1 Z10 plus Y20
- 2 Mean of Y19 and Z2
- 3 Y15 plus X25
- 4 Mean of X26 and Y27
- 5 Y15 minus Z9
- 14 Z8 plus Y36
- 15 Sixty-eight times Y37
- 16 Y2 minus Y20
- 19 Y31 times X25
- 20 Three times a prime number
- 21 Y5 divided by Y26
- 26 Y36 divided by twenty
- 27 Twice a prime number
- 28 Fourteen times a prime number
- 29 Twice the result of Y16 minus Y4
- 31 Y35 plus Y26
- 34 X20 minus Y35
- 35 Mean of Y4 and Z13
- 36 X33 divided by Y37
- 37 Z32 divided by six

Z Direction

- 1 Thirteen times a prime number
- 2 Half of Y14, then subtract Y20
- 4 Seven times a prime number
- 5 A prime number
- 6 One thousand nine hundred eighty-three less than X30
- 7 Three times a prime number
- 8 X17 minus Y35
- 9 X25 times Z2
- 10 Mean of X25 and Z32
- 11 Thirty-nine times a square
- 12 Five thousand twenty-nine more than Z7
- 13 Y20 divided by three
- 23 Five times X17
- 24 A square
- 27 X25 plus Y37
- 32 Z27 plus X28

Solution:

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

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