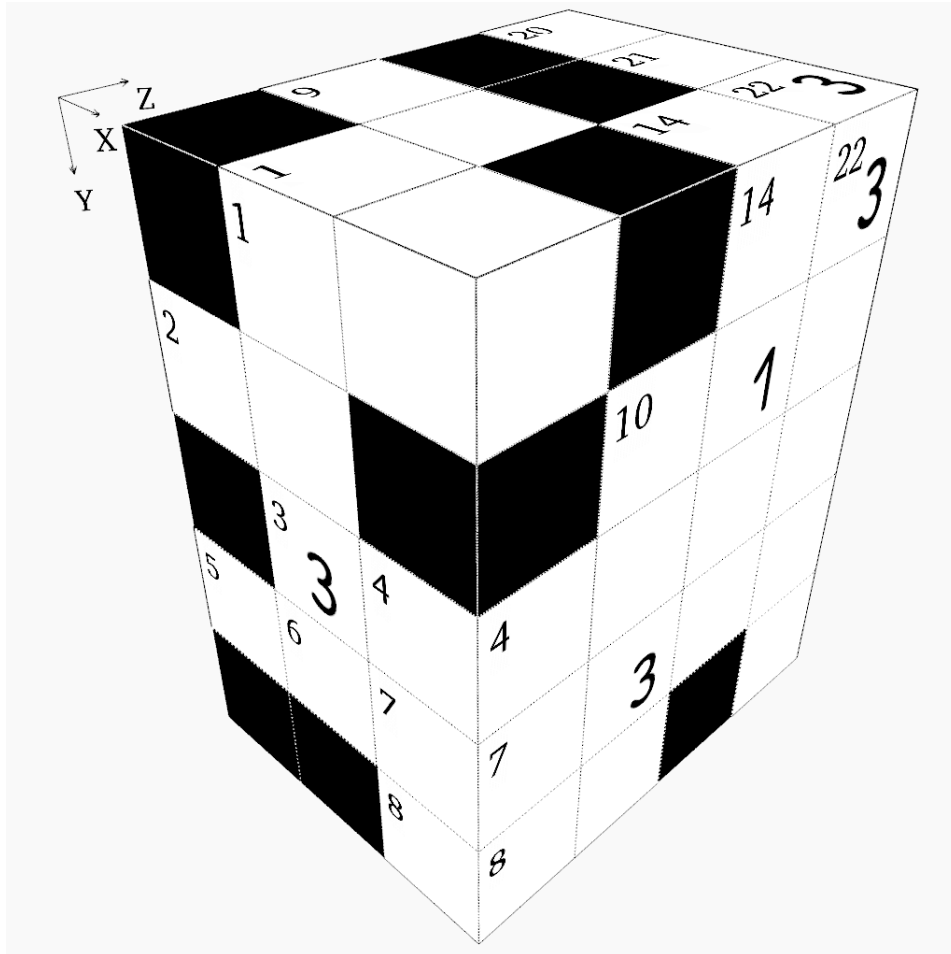


Difficulty: ☆☆☆☆☆

Box - Beginner Puzzle #42



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

X Direction

- 1 Mean of Z14 and X11
- 2 A square
- 3 Z14 reversed
- 5 X24 plus X19
- 9 X17 minus Y11
- 11 Z17 reversed
- 12 Z10 minus X11
- 15 Y15 minus Z7
- 17 X11 plus Y9
- 18 Twenty-three times a prime number
- 19 X3 minus X2
- 20 Mean of Z6 and Z1
- 23 Four times Y12
- 24 Nine times Z1

Y Direction

- 1 Mean of Y10 and Y21
- 4 Eight times a prime number
- 9 X17 minus Z8
- 10 One thousand fifty less than Y15
- 11 Y12 minus X1
- 12 X19 plus Z14
- 14 Mean of Y15 and Z8
- 15 Eighty-one times a prime number
- 16 Thirty-eight times a prime number
- 20 Eight times a prime number
- 21 Seven times X11
- 22 Eight times a prime number

Z Direction

- 1 Z16 minus Z14
- 2 Twice a prime number
- 3 Seven times a prime number
- 4 Y14 plus half of X2
- 5 X23 times Z13
- 6 Five times a prime number
- 7 Fifty-two more than Y16
- 8 Mean of Z13 and Z1
- 10 Z8 plus X12
- 13 X5 divided by twenty-seven
- 14 X1 plus Z13
- 16 Twice a prime number
- 17 Three-fourths of X2

Solution:

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