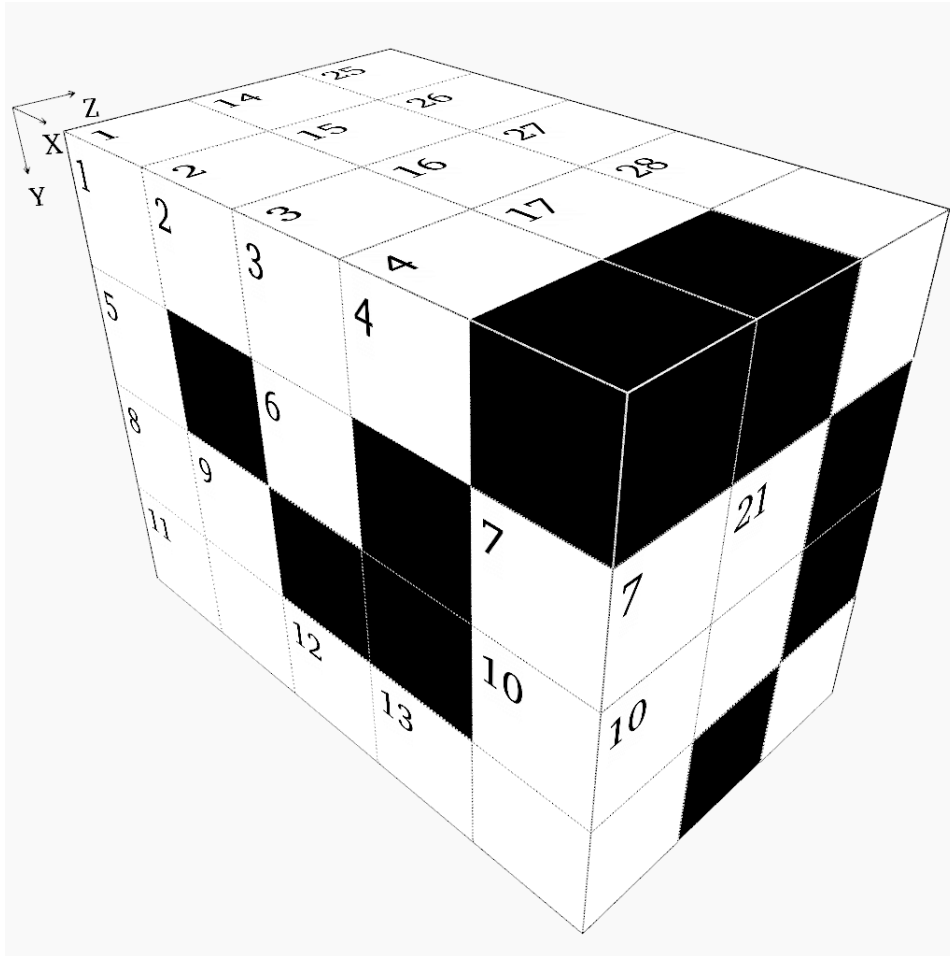


Difficulty: ★★☆☆☆

Box - Challenging Puzzle #14



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		14	15	16	17		25	26	27	28	
5		6		7	18	19		20	21	29				
8	9			10		22	23			30				
11		12	13				24				31			

X Direction

- 1 Four times a prime number
- 8 Z20 plus Z7
- 11 Three times a prime number
- 14 A prime number
- 18 Six times a prime number
- 22 Mean of Y3 and Z20
- 24 Square root of Z13
- 29 A prime number
- 30 Twice a prime number
- 31 Forty-six times a prime number

Y Direction

- 1 Twice a prime number
- 3 Z13 minus Y21
- 7 X25 divided by Z6
- 9 Mean of Y21 and Z10
- 14 Mean of Z10 and Z20
- 15 Eighty-three times Y17
- 16 Thirteen times a prime number
- 17 Z10 divided by nine
- 21 A square
- 25 Ninety-two more than Z2
- 26 Half of X31, then subtract Z1
- 27 Mean of Z20 and X14
- 28 Two thousand three hundred twenty-six less than X31

Z Direction

- 1 Fifty-three times Z19
- 2 Mean of Z9 and X8
- 3 Six times a prime number
- 4 Y16 divided by Z20
- 5 Mean of Y25 and Y3
- 6 Z10 plus X24
- 7 Twice the result of X30 minus X14
- 9 Rearranged digits of Y7
- 10 Z12 minus Z19
- 11 Z13 minus Y9
- 12 Nine times Z20
- 13 A square
- 19 Y9 minus Y14
- 20 Half of Z11
- 23 Mean of Z11 and X22

Solution:

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