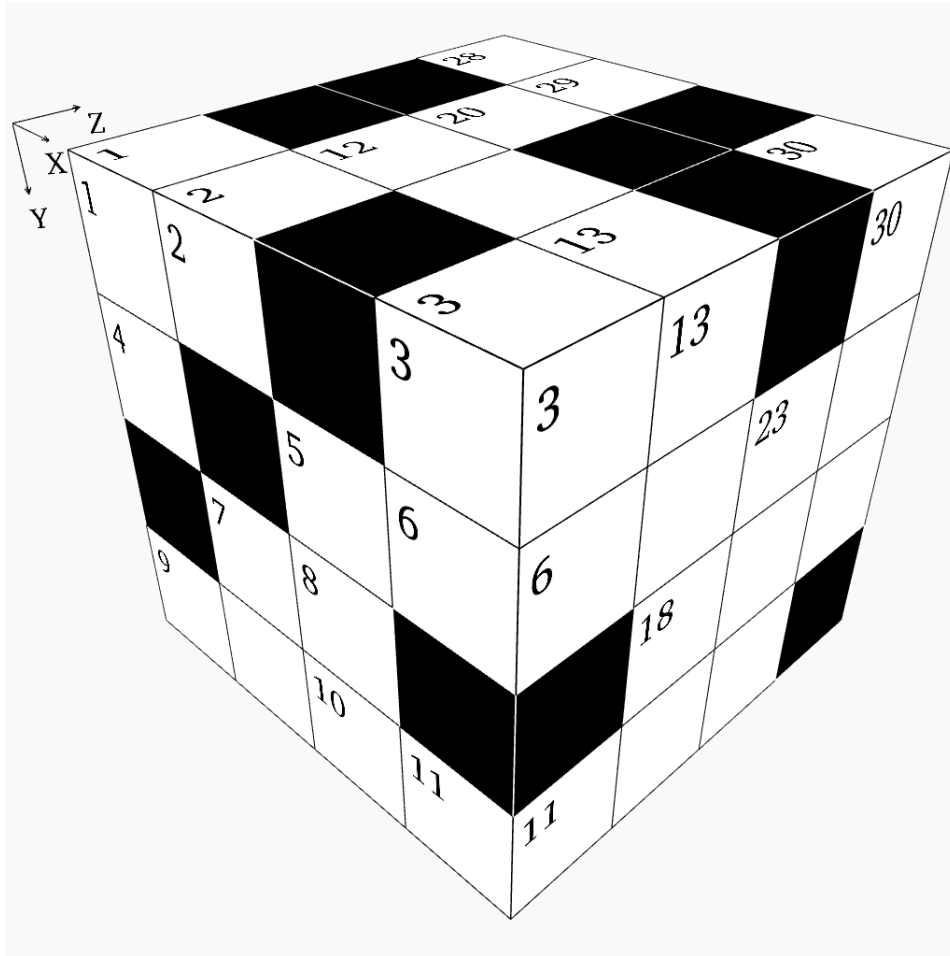


Difficulty: ★★☆☆☆

Cube - Challenging Puzzle #41



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 cube pictured above and divide it into individual X-Y layers, we will get these planes:

1	2		3		12		13		20			28	29		30
4		5	6	14	15			21		22	23	31		32	
	7	8		16		17	18	24	25			33			
9		10	11			19		26		27		34			

X Direction

- 1 Mean of Y14 and Z25
- 5 Mean of Z22 and X12
- 7 X33 divided by seventy
- 9 A prime number
- 12 X5 plus half of X7
- 14 Y30 divided by ten
- 17 Same as Y17
- 19 Mean of Z22 and X27
- 21 Twice a prime number
- 24 Three times a prime number
- 27 Mean of Y12 and Y1
- 28 Z16 minus Y23
- 31 Three times a prime number
- 33 Five hundred ninety-eight more than X21
- 34 Mean of Z15 and Y3

Y Direction

- 1 X12 minus X28
- 3 Same as X5
- 5 Seven times a prime number
- 7 X33 divided by eighty-four
- 12 X19 minus X14
- 13 Z10 plus half of X19
- 14 Y32 divided by X1
- 17 Half of Y29, then subtract X9
- 20 Three times a prime number
- 21 Mean of X5 and Z11
- 22 Z4 minus Y20
- 23 Mean of X5 and Z11
- 28 Z6 reversed
- 29 Four times a prime number
- 30 Twice the result of Z18 minus Y21
- 32 A square

Z Direction

- 2 Four times a prime number
- 3 X28 reversed
- 4 Sixty-six times a prime number
- 6 A square
- 8 Consecutive digits unordered
- 10 Y13 minus Y12
- 11 Z18 plus Z26
- 15 Seven times a prime number
- 16 X28 plus Y21
- 18 Twenty-two times X27
- 22 Mean of X1 and X12
- 25 X28 minus Y3
- 26 Five times Y1

Solution:

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