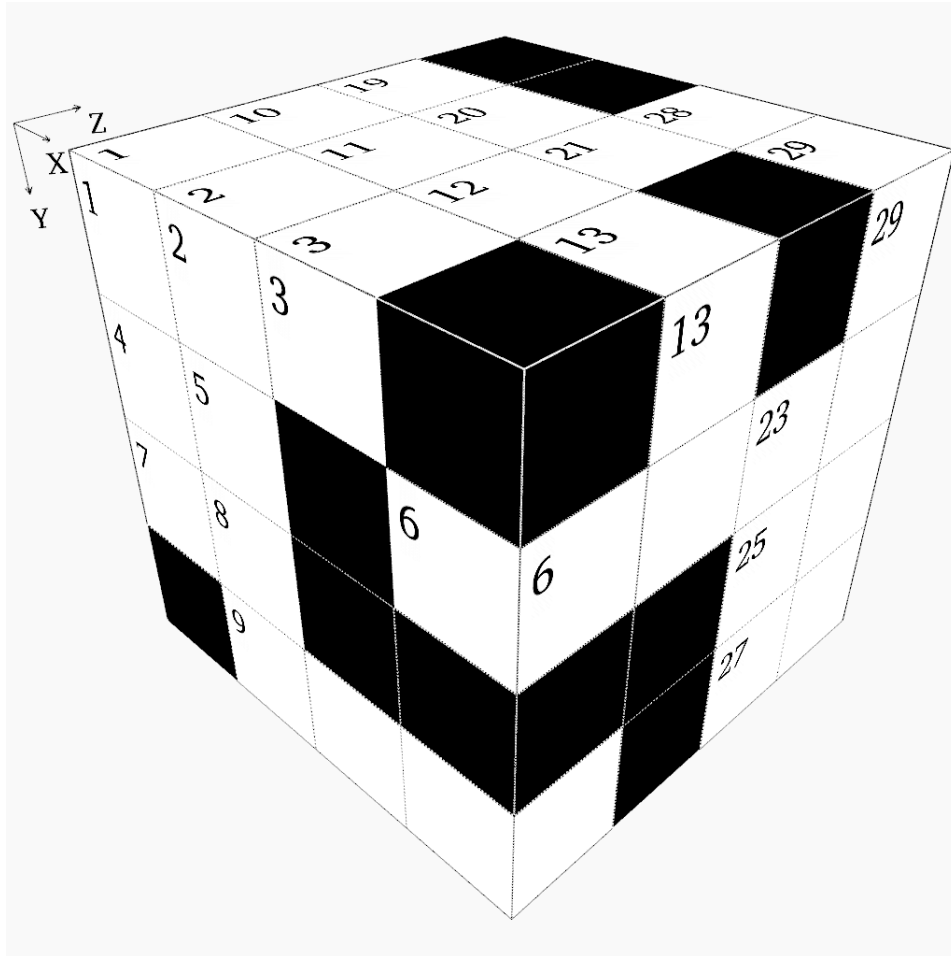


Difficulty: ★★☆☆☆

Cube - Challenging Puzzle #3



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

X Direction

- 1 X30 plus Z1
- 4 Mean of X28 and X7
- 7 Y23 minus Y12
- 9 Seven times Y10
- 10 Twice the result of Z3 minus X9
- 14 Thirty-five times a prime number
- 16 A square
- 18 Mean of Z24 and X4
- 19 Ninety-four more than Z5
- 22 Eight times a prime number
- 24 Twenty-one times X16
- 26 Y10 plus X30
- 28 Four times a prime number
- 30 Y19 minus Y2
- 31 X33 plus Y1
- 33 Fifteen times a prime number

Y Direction

- 1 Twenty-five times X30
- 2 A prime number
- 10 Y13 minus Z24
- 11 Mean of Y28 and Z5
- 12 A square
- 13 X28 minus X18
- 19 Eight times a prime number
- 20 Z6 plus Y10
- 21 Twenty-eight times X30
- 23 A prime number
- 28 Eight hundred eight more than Y20
- 29 Fifteen times a prime number
- 31 Y21 divided by Z25
- 32 Mean of Y31 and X7

Z Direction

- 1 X24 minus Y1
- 2 Rearranged digits of Z18
- 3 Y21 plus Y23
- 4 One hundred eighteen more than Z2
- 5 Seventeen times X30
- 6 Eight hundred thirty-four less than Y28
- 8 Three hundred thirty-two more than Z6
- 9 Twice a prime number
- 15 Z2 plus X30
- 17 Y10 plus X16
- 18 Six times Y32
- 24 Square root of Y12
- 25 Y13 minus X30
- 27 X1 minus Z4

Solution:

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