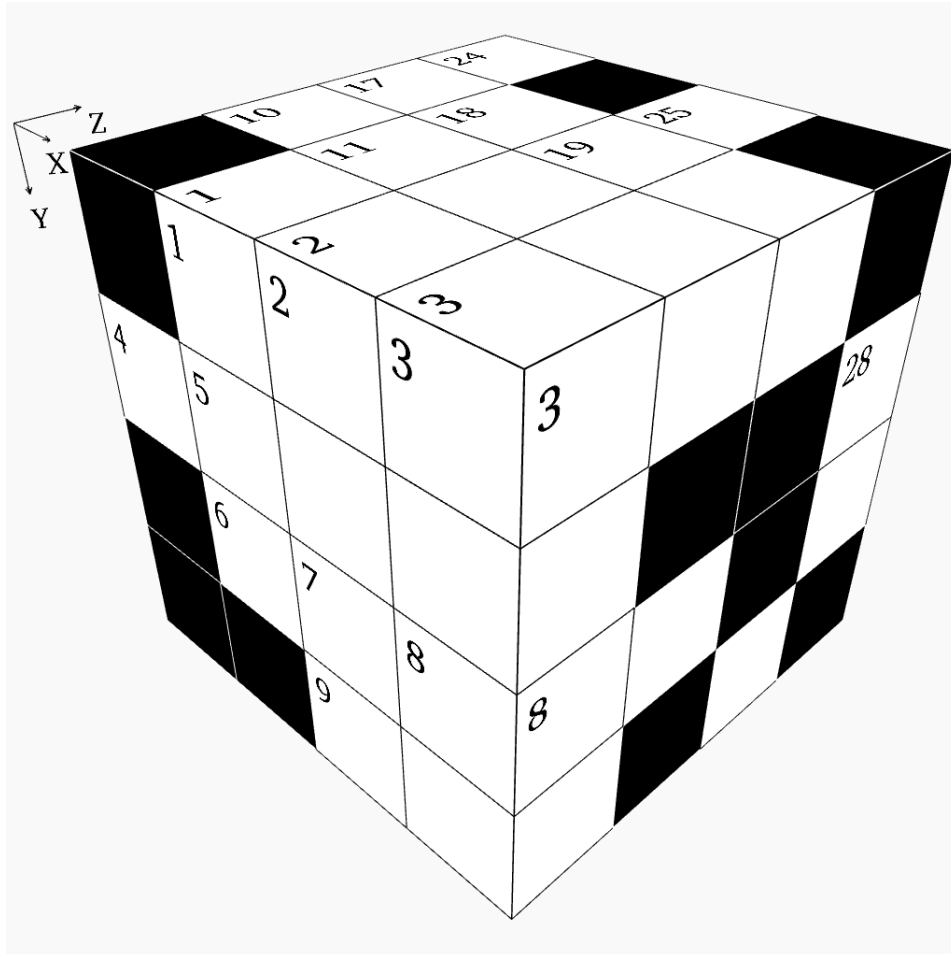


Difficulty: ★★☆☆☆

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

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

X Direction

- 1 Twenty-five times Y10
- 4 Twice a prime number
- 6 Seventeen times a prime number
- 9 Y28 minus Y10
- 10 Thirty times a prime number
- 12 All digits are the same
- 13 Z15 reversed
- 15 A square
- 17 Thirty-one times a prime number
- 20 Z21 reversed
- 22 Z3 minus Z15
- 23 Y2 plus X13
- 26 Mean of Y25 and X6
- 29 A square
- 30 A prime number

Y Direction

- 1 Mean of X22 and Y27
- 2 Forty-two times a prime number
- 3 One thousand twenty more than X26
- 10 A prime number
- 11 Half of Z5, then subtract X10
- 14 Half of X9
- 18 Eleven times a prime number
- 19 Six times a prime number
- 24 Half of Y19, then subtract X15
- 25 Three times a prime number
- 27 Thirty times a prime number
- 28 A square

Z Direction

- 1 Fourteen times a prime number
- 2 Y24 minus Z3
- 3 Mean of X13 and X9
- 4 A prime number
- 5 Last three digits are the same as Y1
- 6 Y3 plus X17
- 7 Y18 minus Z15
- 8 Y28 plus Y10
- 9 Five hundred two less than Z6
- 10 Y14 plus X20
- 15 Mean of Z16 and X9
- 16 Twice the result of Z1 plus Z4
- 21 X30 minus Z16

Solution:

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