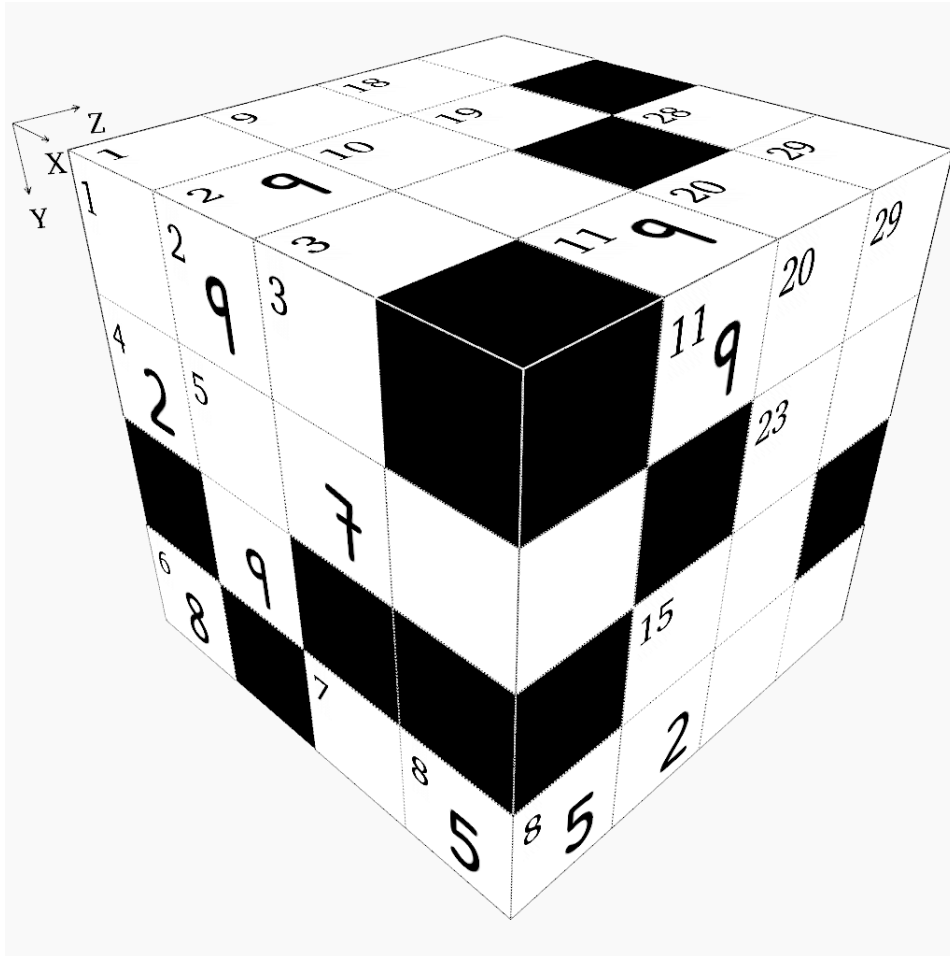


Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #38



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		9	10		11	18	19		20			28	29
4	2	5	7		12	6		21	1	22	2	23		30	0
		9			13		14	15	24	25			31	6	1
6	8		7	8	16	17		2	26		27	1		32	

X Direction

- 1 Twice the result of Y20 minus Y9
- 4 Three hundred fifty-one less than X24
- 7 Sum of digits in X4
- 9 Y9 plus Y10
- 12 Y1 minus Z3
- 14 Half of Y10, then subtract Z27
- 16 Y31 minus Y3
- 18 A square
- 21 Last two digits are the same as last two digits of Y22
- 24 Thirteen times a square
- 26 Thirty-one times X18
- 28 A square
- 30 Mean of X16 and Z2
- 31 A prime number
- 32 Mean of Y3 and X18

Y Direction

- 1 Z25 plus Y30
- 2 Y3 times X16
- 3 A cube
- 9 Mean of X24 and Z15
- 10 Z15 plus Z23
- 15 X24 divided by Y31
- 18 Fifty-one times a square
- 19 Five times a prime number
- 20 Eleven times a prime number
- 22 Same as Z14
- 28 A prime number
- 29 X28 plus Y15
- 30 Mean of X16 and Z17
- 31 A square

Z Direction

- 1 Eight hundred thirty more than Z6
- 2 Y28 minus half of Y29
- 3 Z13 divided by Z25
- 4 Nine times a prime number
- 5 Thirty-five times a prime number
- 6 Twice the result of Y18 plus Z3
- 8 Mean of Y19 and X31
- 11 X1 minus X12
- 13 Y15 times Z23
- 14 Seventeen times Z27
- 15 Mean of Y31 and Y15
- 17 Z3 plus X18
- 22 Y10 minus Y30
- 23 Z1 divided by X30
- 25 A square
- 27 X18 minus Z25

Solution:

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