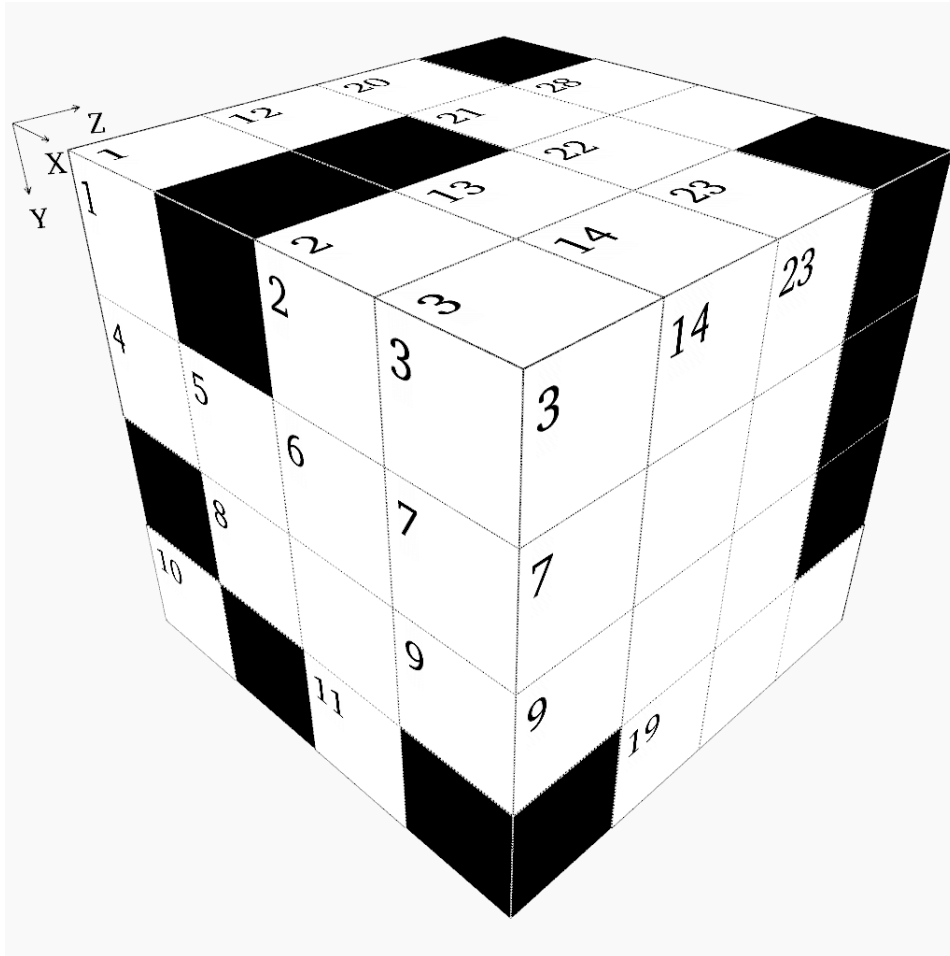


Difficulty: ★★☆☆☆

Cube - Challenging Puzzle #19



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

X Direction

- 2 Z17 reversed
- 4 Rearranged digits of Y2
- 8 X32 plus Z21
- 13 X4 divided by Z26
- 15 Fourteen times X8
- 17 X30 plus X28
- 18 Z2 minus Z19
- 20 Three times a prime number
- 24 Mean of Y16 and X2
- 25 Four times a prime number
- 27 Y28 minus Y1
- 28 Y23 divided by seventy-nine
- 29 Z21 minus X2
- 30 X17 minus Z26
- 32 Z26 plus X29

Y Direction

- 1 Mean of X29 and Y13
- 2 A prime number
- 3 Twenty-six times Y31
- 5 Same as Z4
- 12 A prime number
- 13 Y1 plus X2
- 14 Y28 times Y5
- 16 A square
- 21 Twice the result of Z10 minus X20
- 22 Five times a prime number
- 23 Y3 plus X13
- 25 Mean of X2 and Y5
- 28 Y14 divided by Z4
- 31 A square

Z Direction

- 1 Four times a prime number
- 2 Three hundred thirty-five more than Z8
- 3 Y31 plus Z19
- 4 Z11 divided by X17
- 5 Twice a prime number
- 6 Y21 plus X32
- 7 Twenty times a prime number
- 8 Sixteen times a prime number
- 9 Mean of X17 and X18
- 10 Eighty-one times a prime number
- 11 Three-fourths of Y14
- 17 X4 divided by X28
- 19 Thirty-five times a square
- 21 Y28 minus X27
- 26 X4 divided by Z17

Solution:

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