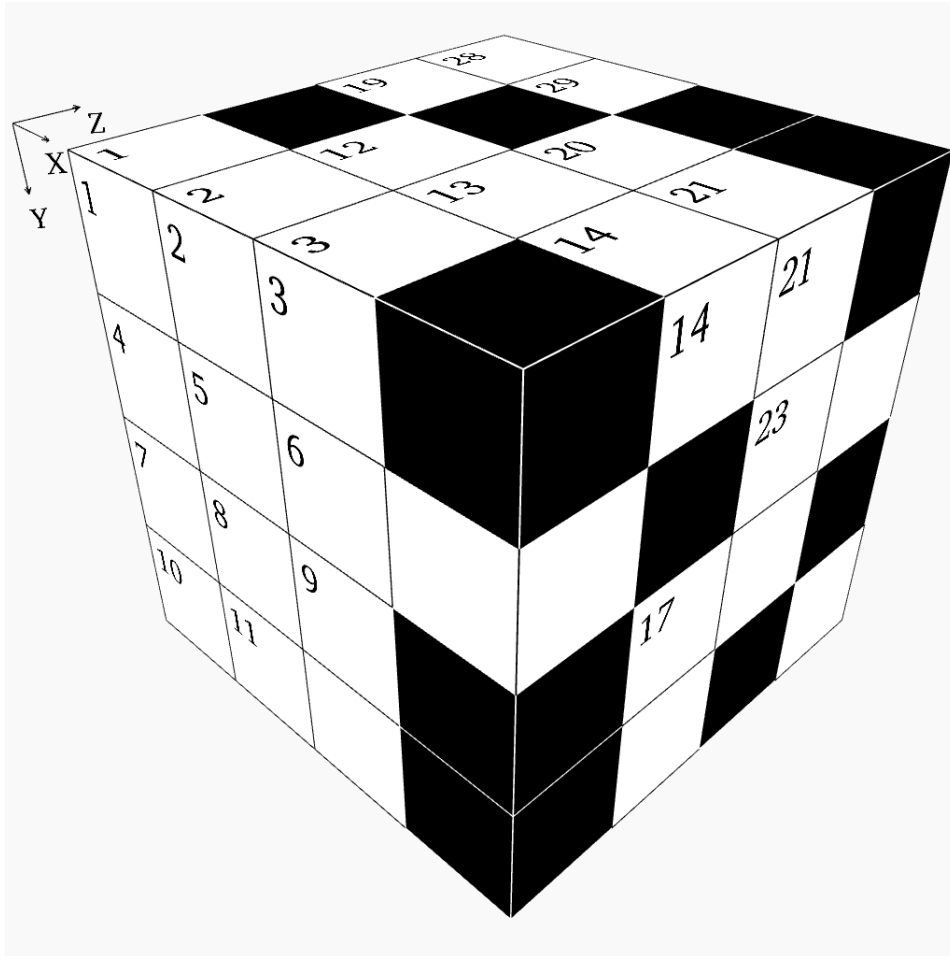


Difficulty: ★★☆☆☆

Cube - Challenging Puzzle #30



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

X Direction

- 1 A prime number
- 4 X1 plus Z11
- 7 Y24 times X20
- 10 Rearranged digits of Z11
- 12 Y3 divided by Z14
- 15 X24 divided by Z6
- 16 Y17 times Z4
- 18 Y29 minus X33
- 20 X7 divided by Z24
- 24 Forty-one times a prime number
- 26 Rearranged digits of Y29
- 28 Y17 minus Z24
- 30 Its digits total Z19
- 32 Twice the result of Z5 minus Y28
- 33 Z6 plus Z23

Y Direction

- 1 Ninety-one times a prime number
- 2 X24 plus Z6
- 3 Six times X4
- 12 Fourteen times a prime number
- 13 Mean of Z17 and X15
- 17 Y25 minus Z4
- 21 Eighteen less than Y31
- 22 Rearranged digits of X15
- 24 Same as Z24
- 25 Y29 minus X18
- 28 Thirteen times a prime number
- 29 Y13 plus Z17
- 31 Seven times Y24

Z Direction

- 2 Z19 plus Z6
- 3 Nine times a prime number
- 4 Y21 divided by Z6
- 5 Three times a prime number
- 6 X20 reversed
- 8 A prime number
- 9 Eight times a prime number
- 10 Five hundred eighty-eight less than Z5
- 11 A prime number
- 14 X4 divided by fifty-two
- 17 A square
- 19 X16 divided by forty-four
- 23 Y25 minus Z6
- 24 Z17 minus X20
- 27 X10 minus half of Z23

Solution:

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