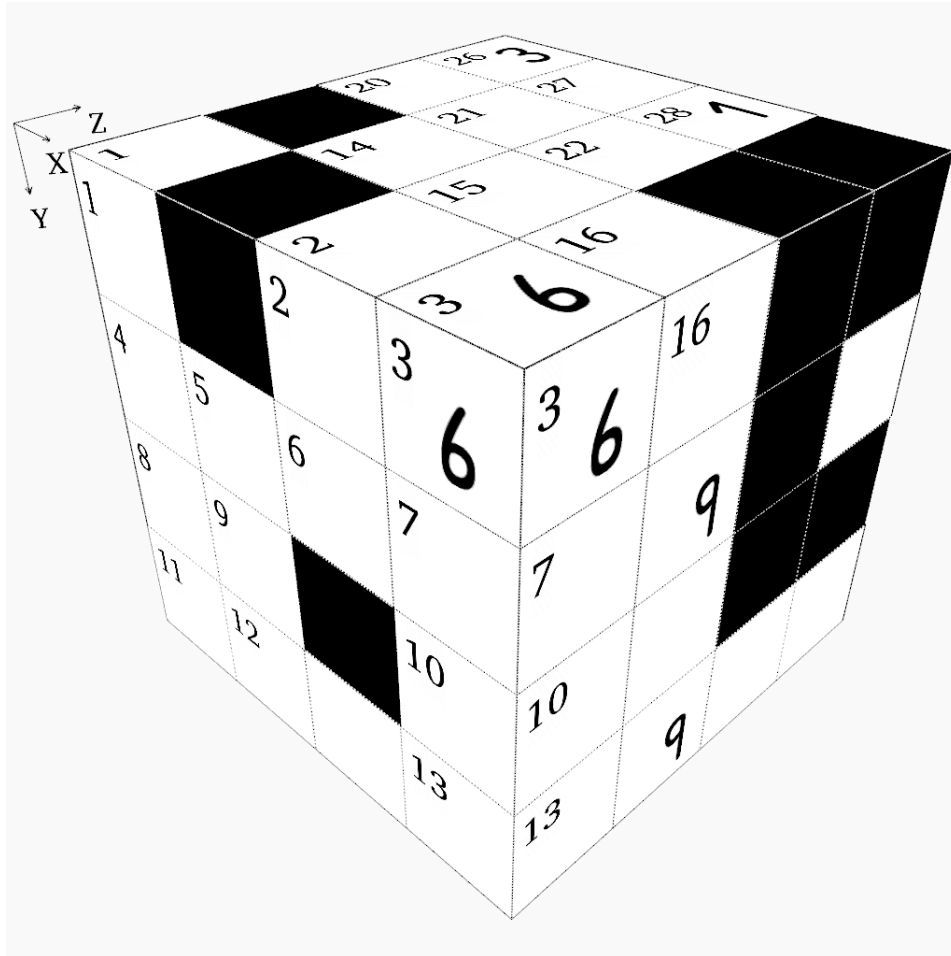


Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #45



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

X Direction

- 2 Mean of X24 and Y22
- 4 Y21 plus Y1
- 8 Twice the result of Y22 minus X25
- 11 Fifty-seven times a prime number
- 14 Z3 plus Y28
- 17 A prime number
- 18 Twice the result of X17 minus X11
- 20 A prime number
- 23 Sixty-seven times Y27
- 24 A square
- 25 Mean of Z3 and Y22
- 26 Mean of Z14 and X20
- 29 A palindrome

Y Direction

- 1 Seven times a prime number
- 2 Z10 plus Y27
- 3 A prime number
- 5 Nine times X2
- 14 Y3 minus X29
- 15 Twenty-two times Z20
- 16 Seven hundred less than X17
- 17 Y28 minus X24
- 20 X25 minus Z8
- 21 Thirty-four times X14
- 22 X8 plus Z3
- 26 Mean of Z19 and Y20
- 27 Y28 divided by ten
- 28 Mean of Z14 and Z7

Z Direction

- 2 One thousand seven hundred thirty-eight less than X17
- 3 Y21 divided by Z7
- 4 Three hundred six more than X4
- 5 A prime number
- 6 Two thousand two hundred thirty-six less than X17
- 7 Half of X14
- 8 X25 minus X8
- 9 Seventeen times a square
- 10 A square
- 12 A square
- 13 Z2 plus half of Z3
- 14 Rearranged digits of Y22
- 19 Fifteen times Z8
- 20 Y26 minus X26

Solution:

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