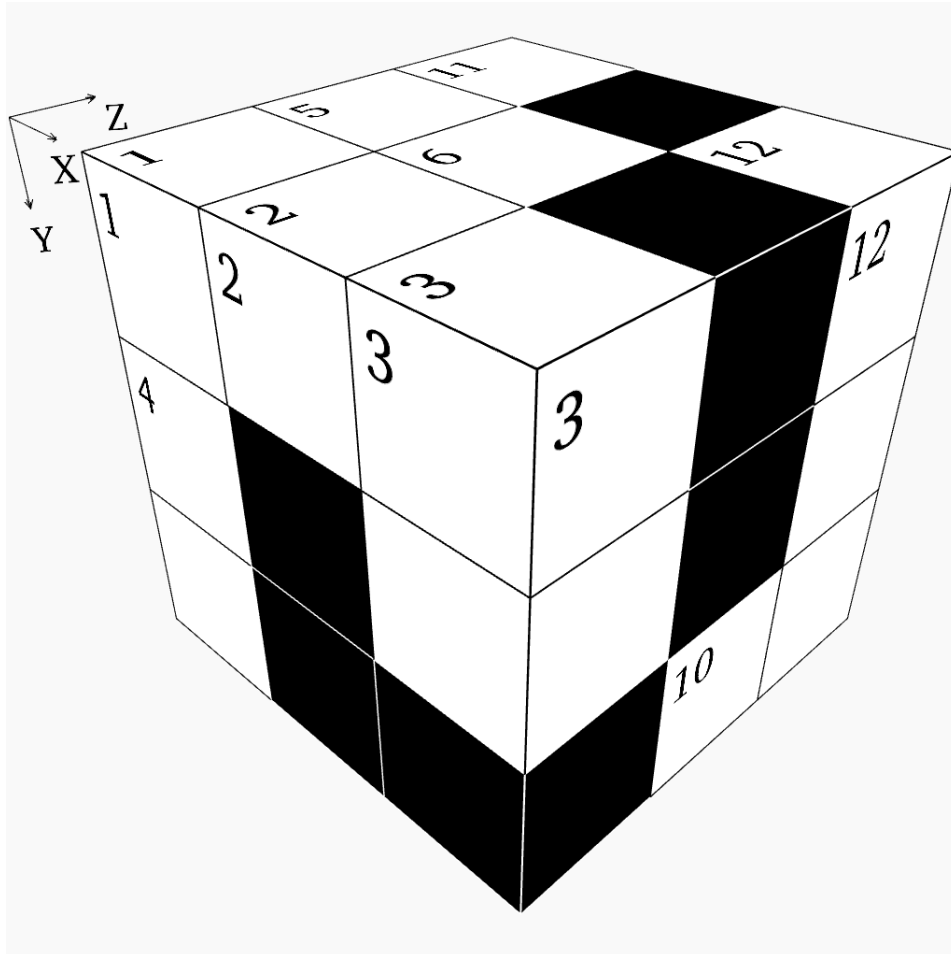


Cube - Intermediate Puzzle #54



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	5	6		11		12
4			7	8		13	14	
				9	10	15		

X Direction

- 1 X15 minus half of X7
- 5 Y3 minus Z2
- 7 Same as Z8
- 9 Z10 minus Y5
- 13 A square
- 15 Twice a prime number

Y Direction

- 1 Z1 plus half of X9
- 3 Y12 divided by four
- 5 A square
- 6 Twenty-nine times Y5
- 11 Seven times a prime number
- 12 Twenty-eight times X5
- 14 Twice the result of Y12 minus Z4

Z Direction

- 1 A prime number
- 2 Twice Z9
- 4 A square
- 8 All digits are the same
- 9 Three times X5
- 10 Same as Y14

Solution:

8	8	9	1	4	■	1	■	3
3	■	8	6	6	■	1	6	9
4	■	■	■	4	6	9	2	2