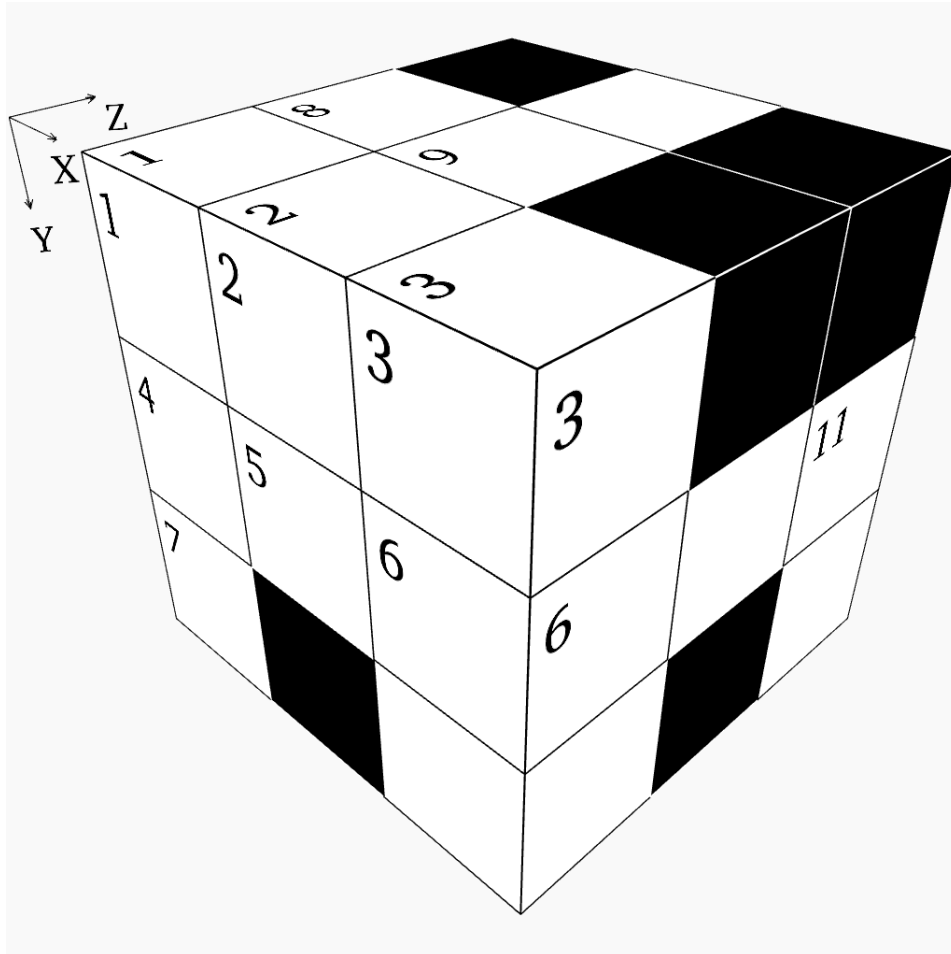


Cube - Intermediate Puzzle #48



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	8	9			
4	5	6		10			11
7						12	

X Direction

- 1 Eight times a prime number
- 4 Four times a prime number
- 8 Z2 minus Y9
- 10 Ten times a square
- 12 X4 minus Y11

Y Direction

- 1 Z6 minus Z5
- 2 Z2 divided by eleven
- 3 Twenty-two times a prime number
- 9 A prime number
- 11 A prime number

Z Direction

- 1 A prime number
- 2 Fourteen times a prime number
- 5 A square
- 6 X1 plus X10
- 7 Y3 plus Z5

Solution:

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