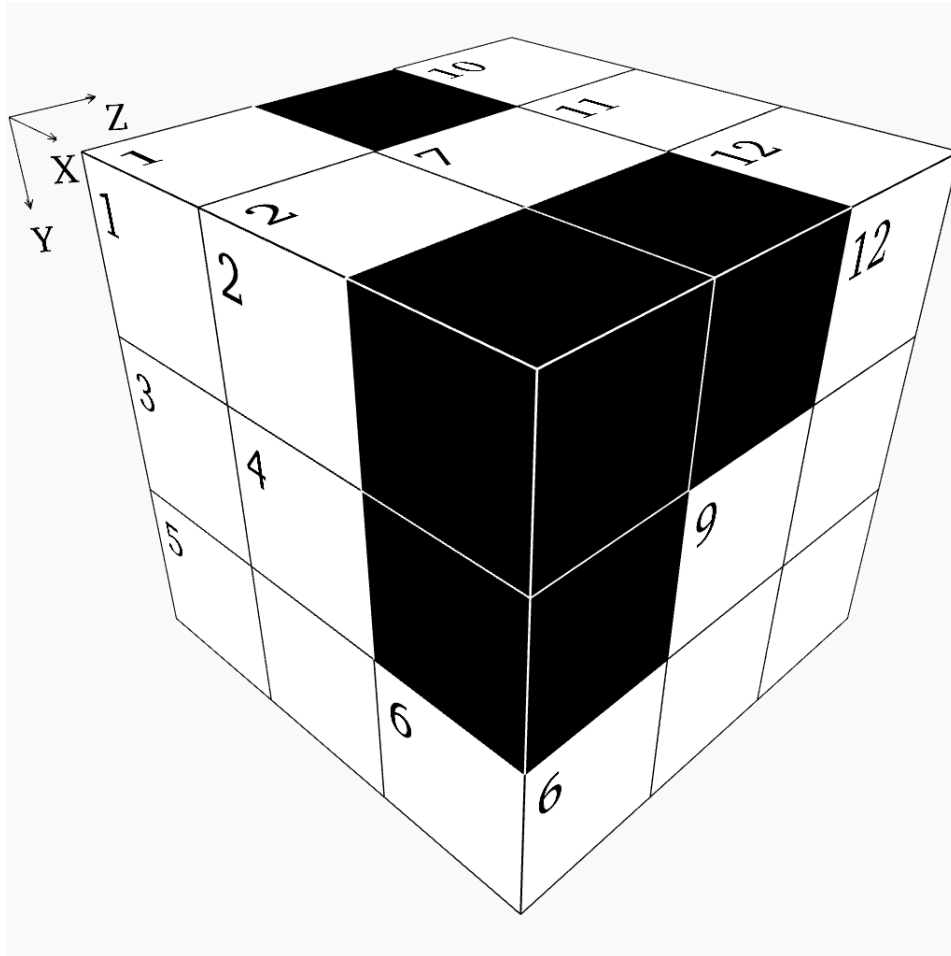


Cube - Intermediate Puzzle #4



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			7		10	11	12
3	4		8		9		13	
5		6					14	

X Direction

- 1 X8 minus Z5
- 3 Y12 minus half of Z6
- 5 A prime number
- 8 Twice a square
- 10 Y11 plus half of Y8
- 13 All digits are the same
- 14 X8 minus X1

Y Direction

- 1 Seven times a square
- 2 Three times a prime number
- 7 A square
- 8 A square
- 9 A prime number
- 11 A prime number
- 12 Consecutive digits unordered

Z Direction

- 2 Five times a prime number
- 3 A prime number
- 4 Fifty-four times Y8
- 5 Twice the result of X5 minus Y2
- 6 One hundred forty-nine more than Y1
- 9 Z4 divided by Y7

Solution:

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