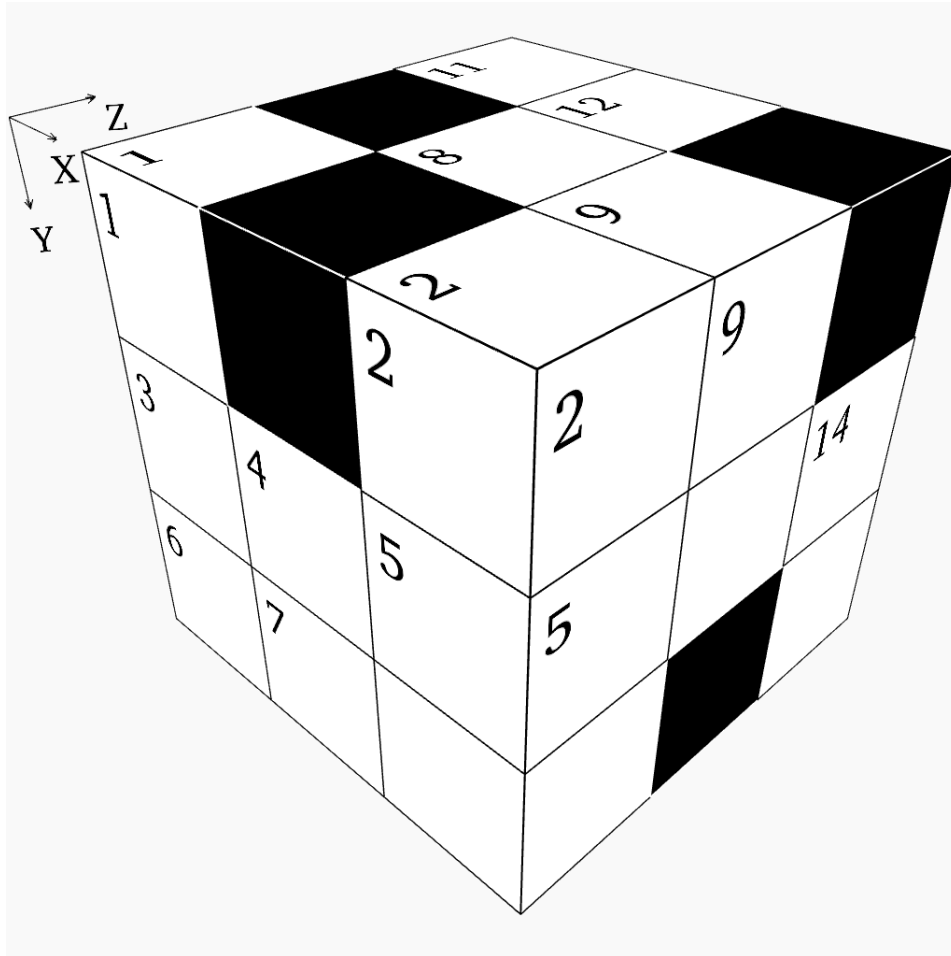


## Cube - Intermediate Puzzle #53



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		8	9	11	12	
3	4	5	10			13		14
6	7						15	

**X Direction**

- 3 Twice a prime number
- 6 A prime number
- 8 One more than X11
- 10 All digits are the same
- 11 A cube
- 13 A cube
- 15 A cube

**Y Direction**

- 1 Consecutive digits unordered
- 2 Mean of Y1 and Z8
- 4 Half of Y9, then subtract Y11
- 8 X6 minus X13
- 9 All digits are the same
- 11 A square
- 12 X11 plus Z3
- 14 A cube

**Z Direction**

- 2 Three times a square
- 3 Y12 minus Y14
- 4 A prime number
- 5 Twice a prime number
- 7 Thirty-four times X8
- 8 A cube

**Solution:**

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