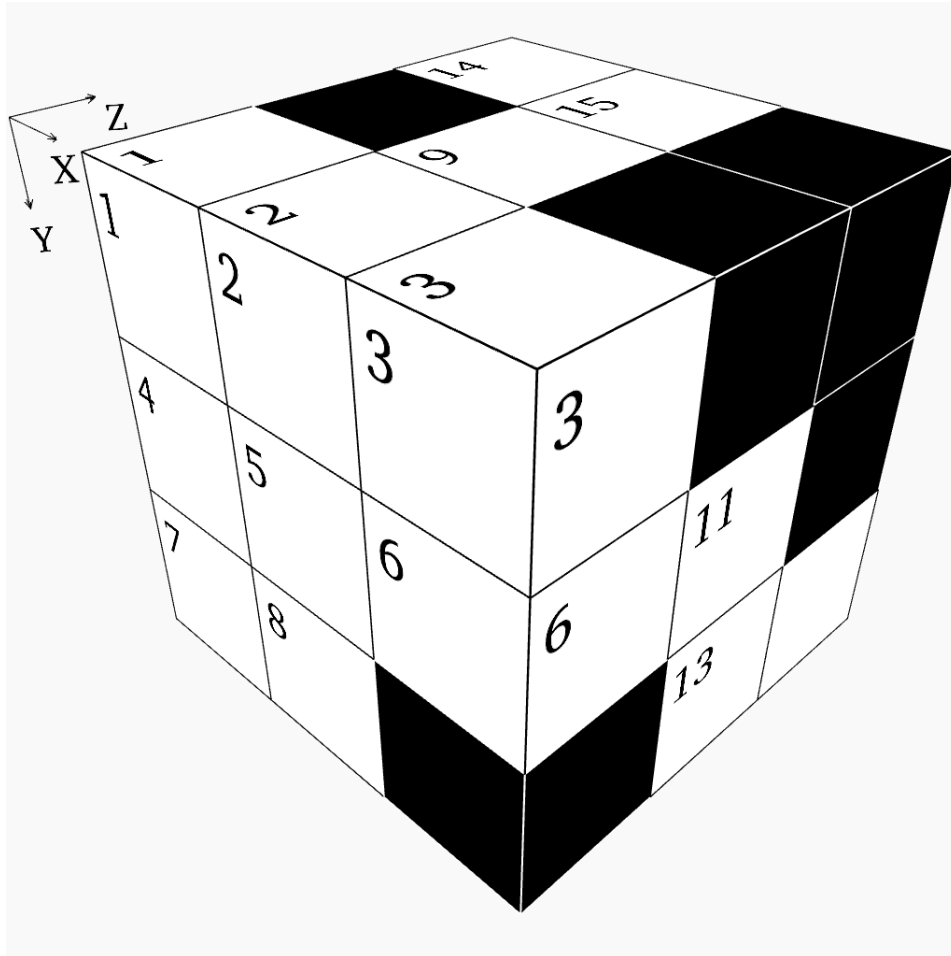


## Cube - Intermediate Puzzle #41



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		9		14	15	
4	5	6		10	11	16		
7	8		12		13	17		

### X Direction

- 1 Mean of Z7 and X4
- 4 Fifty-four times a prime number
- 7 Five less than Y11
- 10 Three times a prime number
- 12 Mean of Y9 and Y11
- 14 All digits are the same
- 16 Z6 reversed
- 17 Twenty-three times Y3

### Y Direction

- 1 All digits are the same
- 2 A prime number
- 3 Z7 minus X4
- 9 X1 minus Y11
- 11 Mean of Y3 and Z8
- 14 Twenty-four times a prime number
- 15 Nineteen times a square

### Z Direction

- 2 Rearranged digits of Y9
- 5 Six times a prime number
- 6 X16 reversed
- 7 One hundred ten more than Y9
- 8 X16 plus X14
- 13 A cube

**Solution:**

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