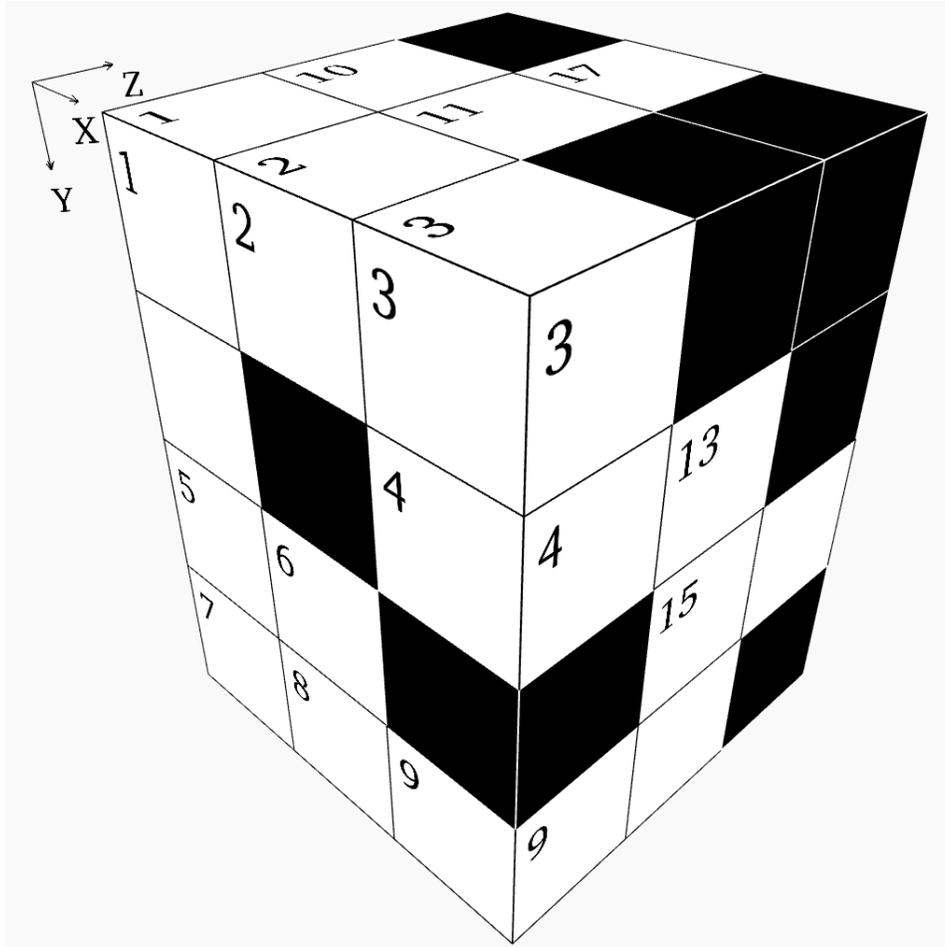


## Box - Intermediate Puzzle #50



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 box pictured above and divide it into individual X-Y layers, we will get these planes:

1	2	3	10	11			17	
		4		12	13	18		
5	6		14		15	19		
7	8	9	16					

**X Direction**

- 1 Twenty-eight times X5
- 5 Z12 minus Y14
- 7 Twenty-nine times a prime number
- 10 Same as Y14
- 12 Mean of Y3 and Z9
- 14 Z2 minus Z15
- 16 Half of Y11, then subtract Y1
- 18 A square
- 19 Eleven times Z12

**Y Direction**

- 1 Forty-one times Z9
- 3 Mean of Z15 and X18
- 6 Z15 minus X5
- 11 Four times a prime number
- 13 Rearranged digits of X16
- 14 Half of X1, then subtract Z5
- 17 Consecutive digits unordered
- 18 Three times a prime number

**Z Direction**

- 1 Twice the result of X19 minus Z8
- 2 Fifteen times a prime number
- 4 Y6 minus X5
- 5 A square
- 6 Twice a prime number
- 7 Z9 reversed
- 8 Thirteen times a prime number
- 9 Z7 reversed
- 12 Twice the result of Y6 minus X18
- 15 Y14 reversed

**Solution:**

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