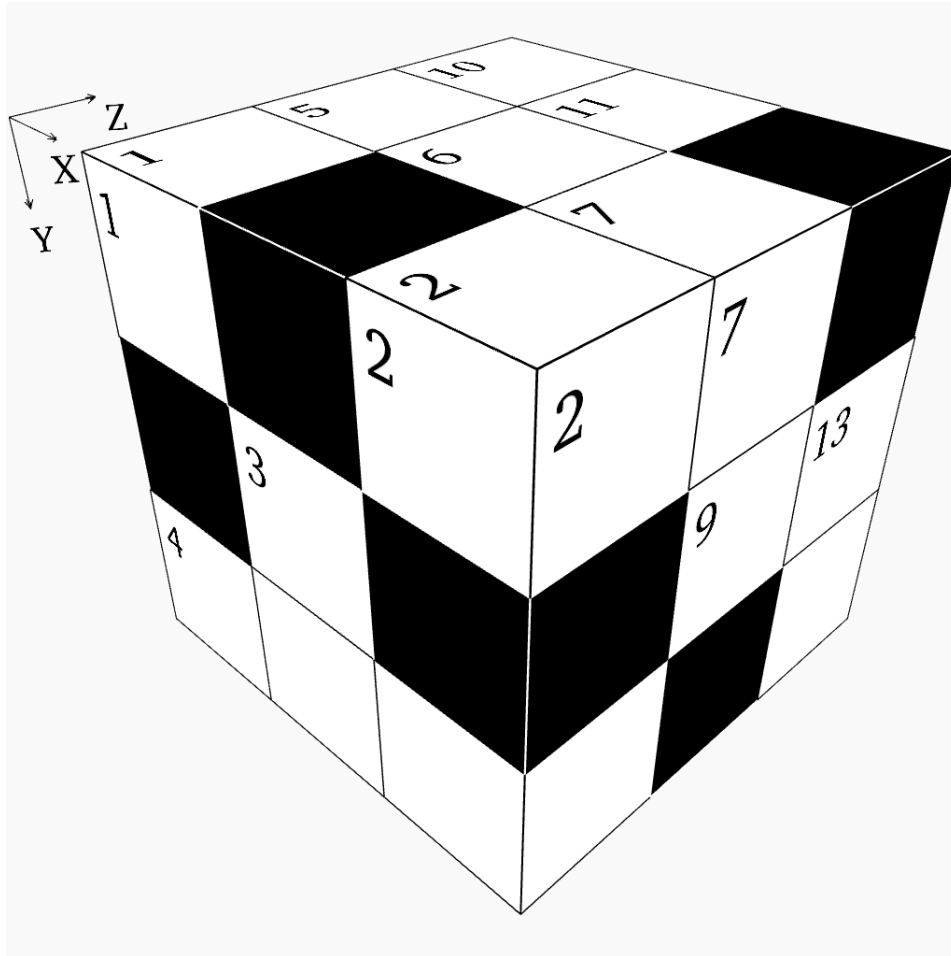# Cube - Intermediate Puzzle #33

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	■
4		

5	6	7
8		9
	■	■

10	11	■
12		13
■	■	

X Direction

4 Y6 plus Y10
5 Z8 times Y13
8 Z3 plus half of Z4
10 A square
12 A prime number

Y Direction

3 Y6 minus X10
5 Fourteen less than X5
6 Z2 plus Y3
7 Z6 reversed
10 X4 minus Z6
11 Seven times a square
13 Three-fourths of Z2

Z Direction

1 A prime number
2 Sum of digits in Z1
3 A prime number
4 Three-fourths of Z2
6 Y10 plus Z8
8 X5 divided by Z4
9 Seven times Y10

Solution:

6	■	1	9	9	6	1	6	■
■	8	■	8	6	9	3	3	1
1	0	9	2	■	■	■	■	2