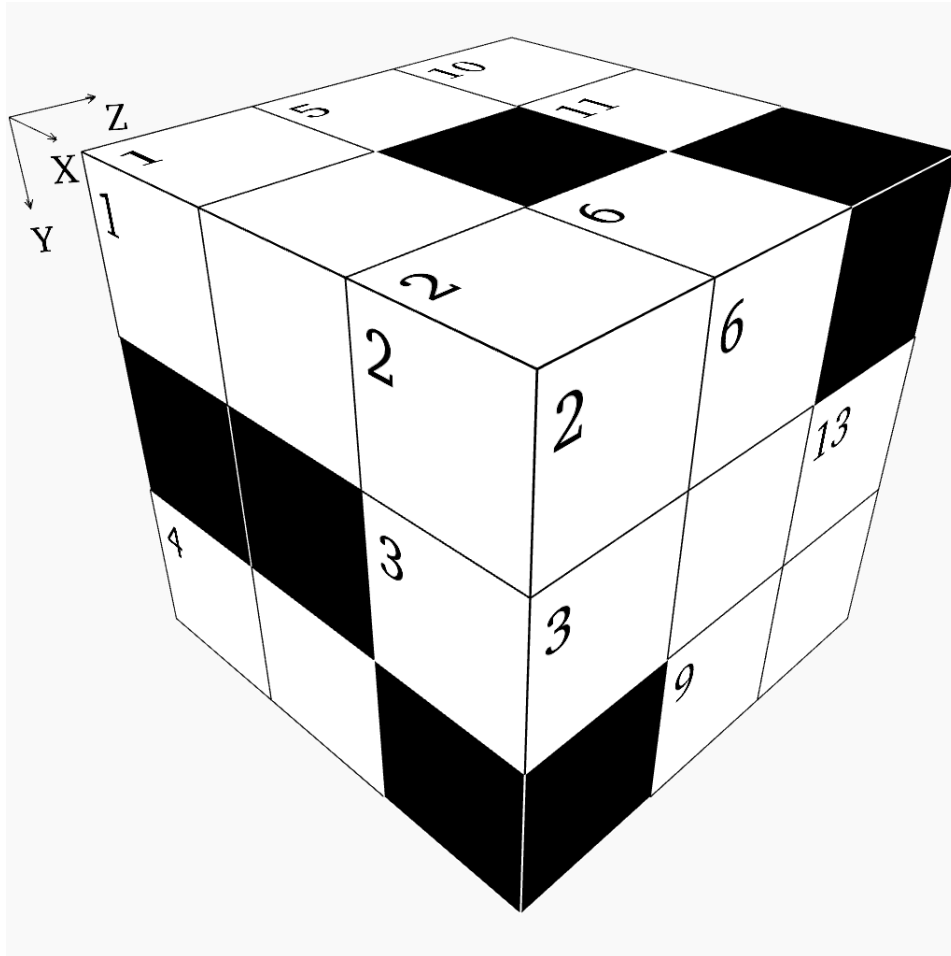# Cube - Intermediate Puzzle #14

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
■	14	

X Direction

1 Z2 plus Z1
4 A prime number
7 Twenty-six times a square
10 Twice the result of Z8 plus Z4
12 Six times a prime number
14 Y6 minus half of X7

Y Direction

2 Same as Z2
5 Mean of Z3 and Y13
6 Two-thirds of Y11
11 Eighty-seven less than X7
13 Y2 minus X4

Z Direction

1 X1 minus Y2
2 Three times Z4
3 Mean of Z1 and Y5
4 Y2 divided by three
8 Half of Z9
9 Four times X4

Solution:

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