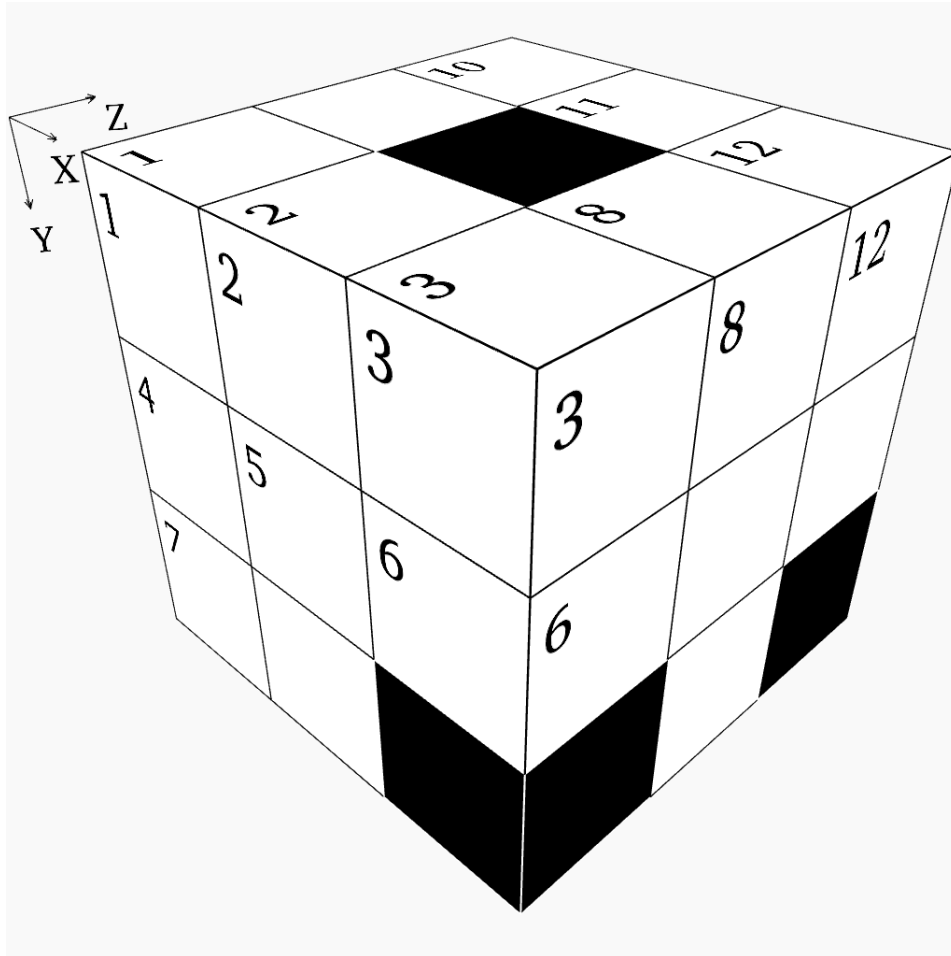# Cube - Challenging Puzzle #14

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 Y11 plus half of X9
4 Nine times a prime number
7 A prime number
9 Y8 divided by five
10 Y1 minus Y8
13 Consecutive digits unordered
14 Five times a prime number

Y Direction
1 A prime number
2 Mean of X4 and X14
3 A prime number
8 A square
10 Z1 reversed
11 Five times a prime number
12 Twice a prime number

Z Direction
1 A prime number
3 Eleven times a prime number
5 One hundred twenty-two less than X1
6 Mean of X13 and Y12

Solution:

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