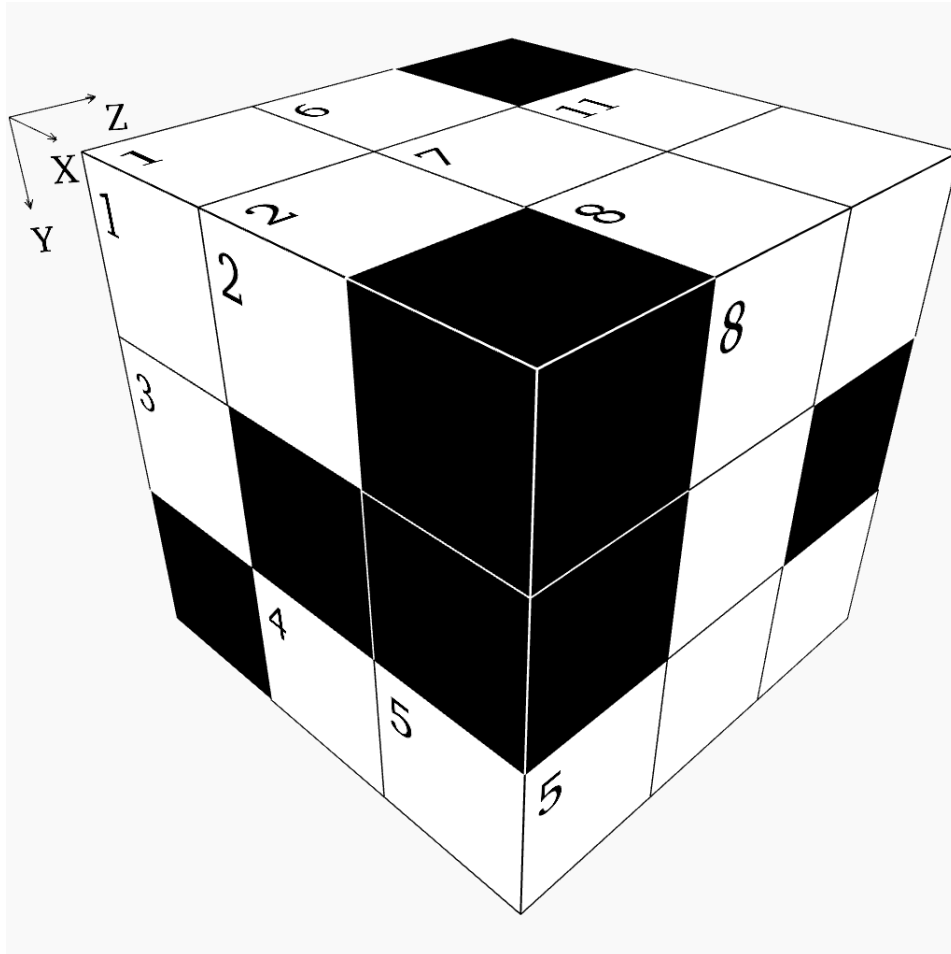# Cube - Intermediate Puzzle #2

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

1 X10 divided by Y1
4 A square
6 A prime number
9 Fifty-two times X1
10 X13 plus X4
11 Z4 divided by Z10
13 Mean of Z2 and Y12

Y Direction

1 Same as Z1
6 A prime number
7 Z3 minus X4
8 X4 plus half of X9
12 Z8 minus X1

Z Direction

1 Z3 divided by X11
2 Consecutive digits unordered
3 Z1 times Z8
4 Z10 times Z8
5 Sixty-two times Z10
8 Z3 divided by Y1
10 Z3 divided by forty-two

Solution:

1	2	■	4	4	3	■	3	3
4	■	■	6	2	4	2	■	■
■	3	6	1	6	8	1	3	2

Intermediate-2