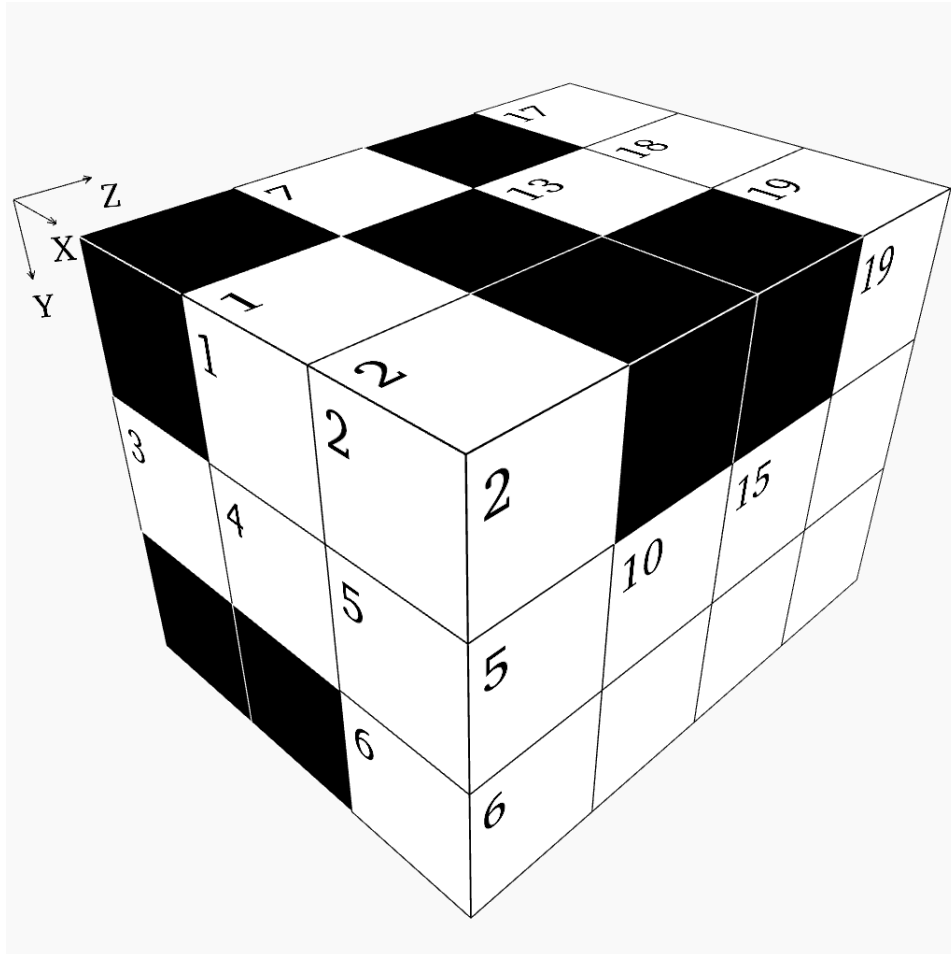# Box - Intermediate Puzzle #11

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	4	5
■	■	6

7	■	■
8	9	10
11	12	

■	13	■
14		15
16		

17	18	19
■	20	
	■	

X Direction
1 Y2 minus X8
3 Sixteen times a prime number
8 Mean of X11 and Y1
11 Eight times a prime number
14 Z11 minus Y1
16 Twenty-eight times a prime number
17 A prime number
20 Y18 plus Y10

Y Direction
1 Twice Z13
2 Mean of X17 and X20
7 Y18 times Z13
9 Y2 minus X8
10 X1 plus Y15
13 Y19 plus Y14
14 Y18 plus Z12
15 Z3 divided by forty-two
18 A cube
19 A prime number

Z Direction
3 Y10 times Z12
4 Seventeen times a prime number
5 A prime number
6 Three times a prime number
11 Mean of Z3 and Y14
12 X14 divided by Y15
13 Z3 divided by seventy-seven

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