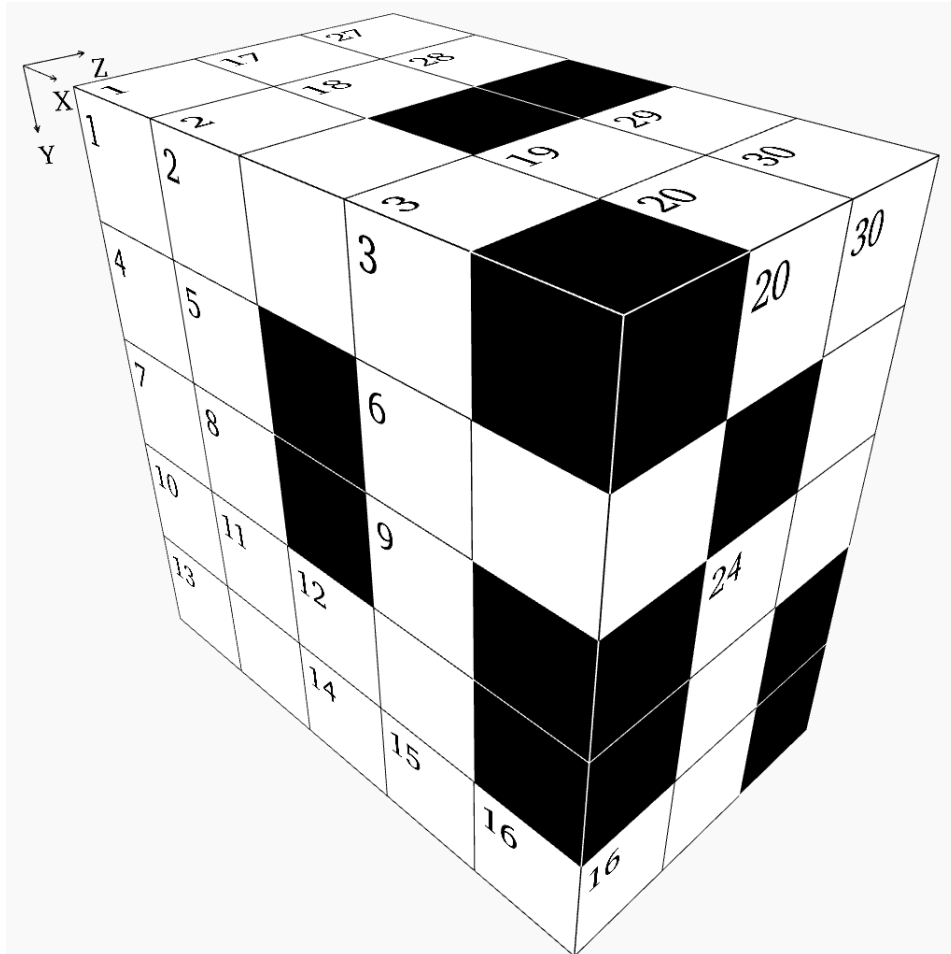# Box - Challenging Puzzle #13

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
21		■		■
■	22	23		24
25			■	
■	■	26		

27	28	■	29	30
31		32		
33				
34			■	■
35				■

X Direction

1 Three times a square
4 Mean of X7 and Z24
6 Y12 minus Y17
7 Half of Z3, then subtract Y24
10 Thirty-five times a prime number
13 Nine times a prime number
17 Twice the result of Y28 minus Y2
19 A prime number
21 Y17 reversed
22 Seven times a prime number
25 Y29 minus Z8
26 X25 minus half of Z8
27 Y29 minus Z10
29 X7 minus X21
31 Mean of X13 and X35
33 Nine hundred twenty-seven less than Y27
34 Mean of Z12 and X21
35 Five times a prime number

Y Direction

1 Consecutive digits unordered
2 Rearranged digits of Y3
3 Twenty-two thousand nine hundred ten less than Y1
12 Y27 divided by Z5
17 X21 reversed
18 Ten times a prime number
19 Two-thirds of Z9
23 One hundred fifty-one more than Z14
24 Seven times a prime number
27 Z5 times X27
28 Three thousand five hundred twenty-one more than X13
29 Rearranged digits of Z9
30 X6 times Z24
32 Twenty-three times a prime number

Z Direction

1 X34 plus Z10
2 Z3 minus Z20
3 Z11 plus Y12
4 Mean of X26 and Z15
5 Y19 plus X34
6 Y3 divided by X34
8 Mean of Z12 and Z16
9 Seventeen times X27
10 Y29 minus Y12
11 Z3 minus X27
12 Z10 minus X29
14 Z2 minus X6
15 Nine times Z23
16 X25 divided by thirty-seven
20 X1 divided by Z4
23 Z1 divided by Z16
24 A square

9	7	4	7	■	3	4	■	6	1	5	7	■	6	9
5	9	■	2	6	1	3	■	4	■	3	9	4	9	3
8	2	■	9	■	■	9	8	6	3	5	2	5	9	6
6	7	5	5	■	4	0	7	■	0	2	9	3	■	■
7	5	7	7	1	■	■	2	6	1	3	2	1	5	■