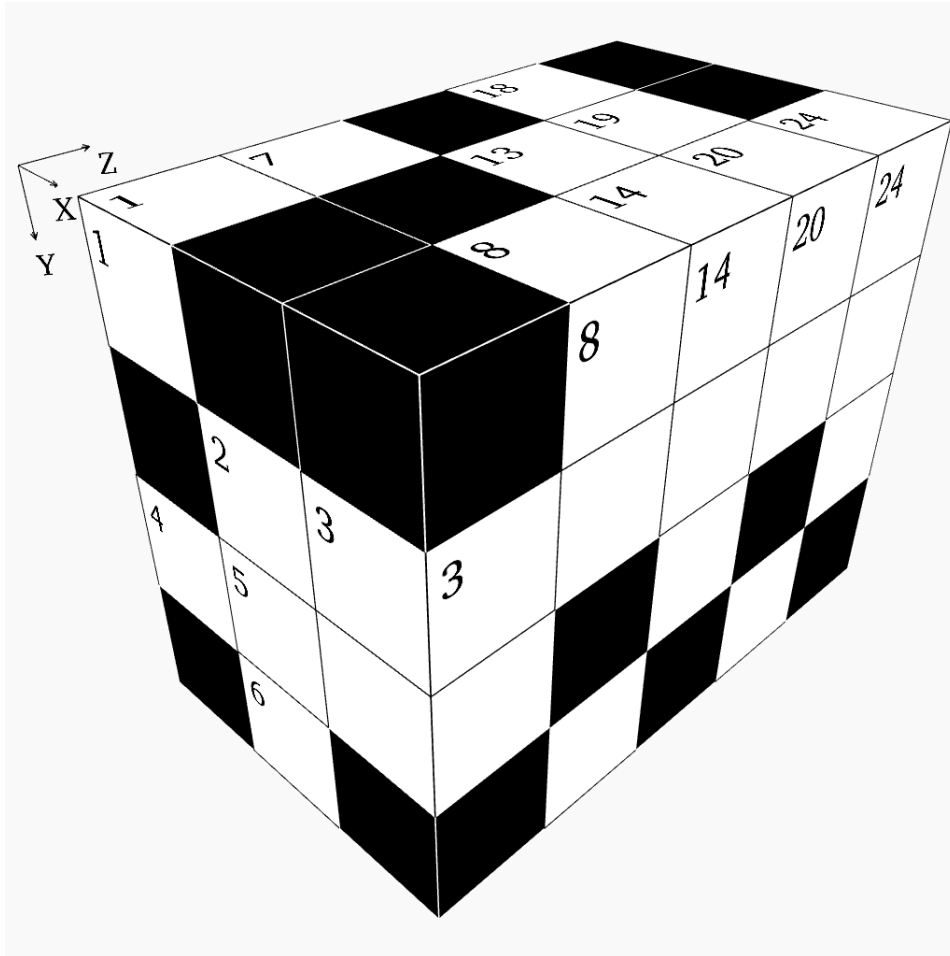# Box - Challenging Puzzle #44

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:

X Direction

2 X12 plus X13
4 Five times a prime number
9 Mean of X18 and X28
11 Z17 minus Y24
12 X18 divided by twenty-nine
13 Y3 minus Z9
15 X13 times Y8
16 Half of X27, then subtract Y15
17 Mean of X22 and X12
18 Thirty-two times a prime number
21 Mean of Y7 and Z9
22 Mean of X11 and X13
23 Nineteen times a prime number
25 Sixteen times Y3
27 Four times a prime number
28 Mean of X13 and Z1

Y Direction

2 Z17 plus Y7
3 Y8 plus Y22
7 X4 minus X23
8 X17 minus Z1
10 A prime number
13 Z6 divided by X12
14 Z17 minus Z9
15 X27 minus X23
19 Thirty-five times a prime number
20 A prime number
22 Y19 divided by Y20
24 Sixteen times a prime number
25 Mean of X25 and Y26
26 Twice a prime number

Z Direction

1 Y2 divided by X2
2 Fourteen times a prime number
3 Ten times a prime number
4 Three times a prime number
5 Seventy-four times a prime number
6 Three thousand one hundred twenty-two more than Z3
8 A prime number
9 Z1 plus X17
13 Z9 minus X22
17 Twenty-seven times X13

Solution:

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