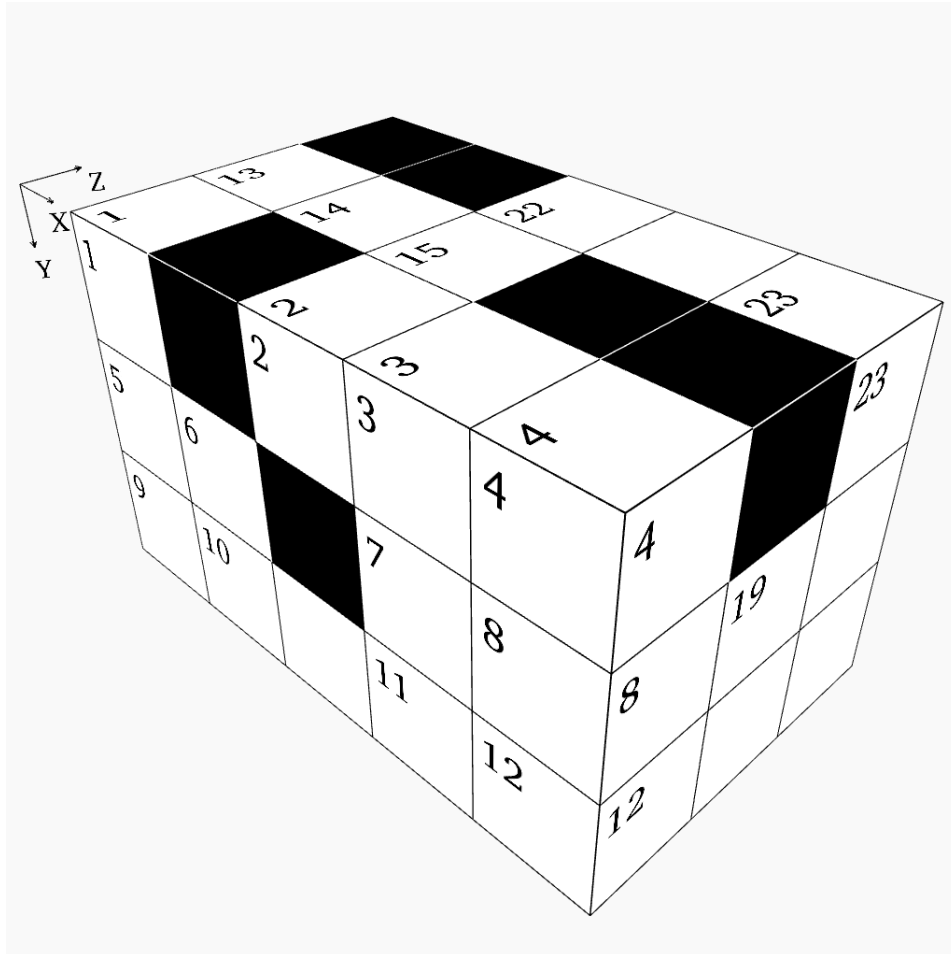# Box - Intermediate Puzzle #32

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			

X Direction

2 Nineteen times a prime number
5 Twice Y25
7 Three times Y19
9 Four times a prime number
13 Mean of Y23 and Y19
16 Four times a prime number
20 Mean of Z7 and Y25
21 Mean of X5 and Z17
22 A square
24 Twenty-four times Z17
26 Seventy times a square

Y Direction

1 Half of Z12, then subtract X13
3 X2 plus Y6
4 Y13 minus half of Z6
6 Y23 divided by twenty
13 Mean of X20 and Z2
14 Mean of Z2 and Y22
15 X20 minus Y19
18 X20 minus Y6
19 X24 minus Z6
22 X22 minus half of X21
23 Twenty times a prime number
25 Y3 minus Z2

Z Direction

1 X24 divided by twenty
2 Mean of Z8 and X24
5 Four times a prime number
6 Mean of X20 and Z10
7 Z2 minus Y23
8 Z12 minus Y18
9 X20 reversed
10 Y14 minus X21
11 Its digits total Z17
12 Eighty-six times Z17
17 Y23 divided by X21

Solution:

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