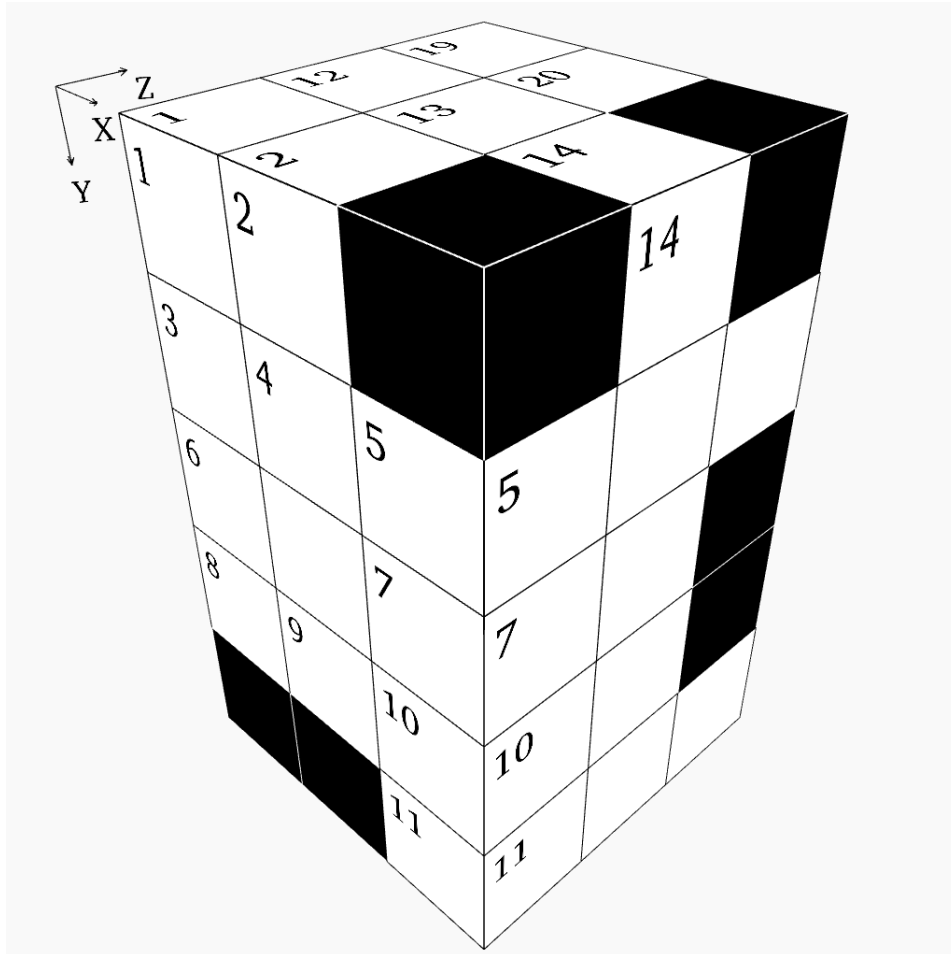Difficulty: ★★☆☆☆

Box - Challenging Puzzle #72

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		

X Direction

1 Four times Z10
3 Twice the result of X6 minus X8
6 A prime number
8 Twenty-one times a prime number
12 Three times a prime number
15 A prime number
16 Z4 plus X22
18 Five times a square
19 X22 divided by eight
21 One hundred twenty-eight less than Z8
22 Z9 minus Z4
23 X19 plus Z18
24 Mean of Z8 and X23

Y Direction

1 One thousand one hundred twenty-one more than Y2
2 Twenty-five times a prime number
5 Fifteen times a prime number
12 X15 minus half of Y13
13 Half of X18
14 Thirty times a prime number
17 Consecutive digits in descending order
19 Mean of Y14 and X22
20 Nine times a prime number

Z Direction

1 Eleven times a prime number
2 Mean of Z4 and Z1
3 Rearranged digits of X8
4 Z11 minus half of X19
5 A prime number
7 Mean of X1 and X18
8 A prime number
9 Same as X16
10 X23 minus X18
11 A prime number
18 Mean of X1 and Y17

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