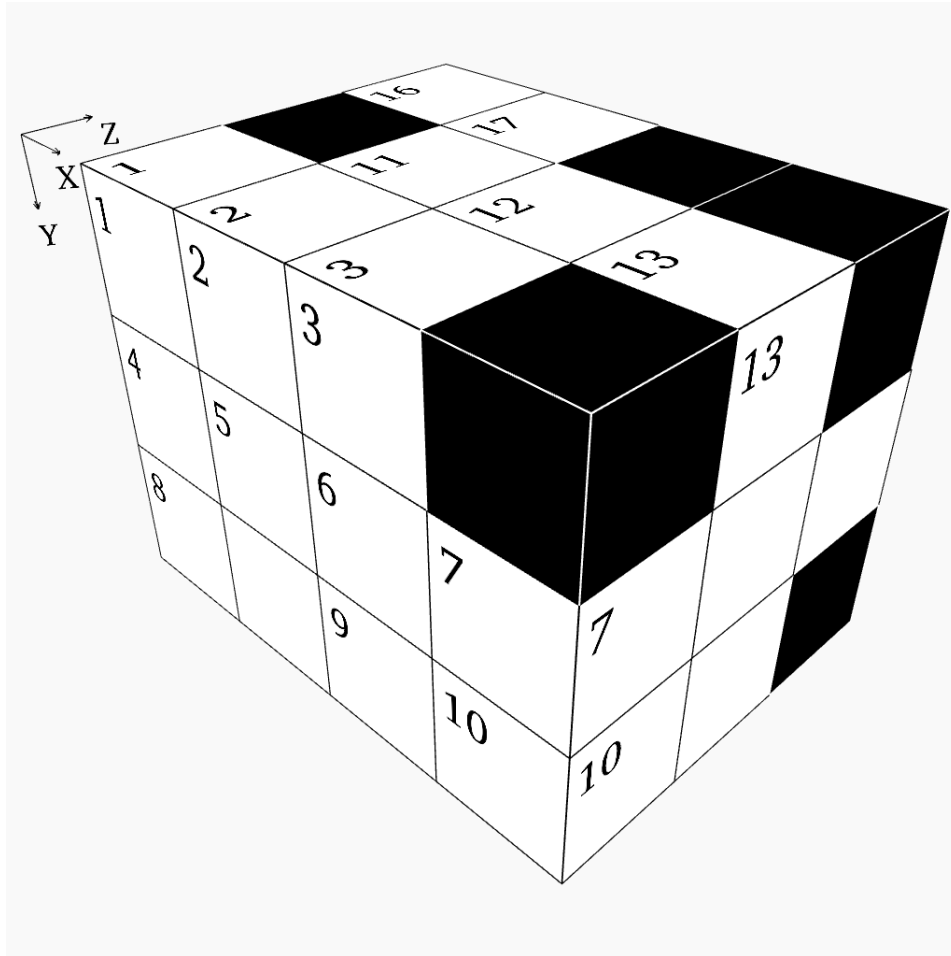


Box - Intermediate Puzzle #24



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			11	12	13	16	17		
4	5	6	7		14			18			
8		9	10			15		19			

X Direction

- 1 Half of Y2, then subtract Z3
- 4 Thirteen times a prime number
- 8 Twenty-seven times a prime number
- 11 A prime number
- 14 Y3 minus X16
- 15 Z6 divided by four
- 16 Y16 minus Y1
- 18 A square
- 19 Rearranged digits of Y12

Y Direction

- 1 Twice a prime number
- 2 Z2 plus Z10
- 3 X14 plus half of X18
- 7 Y17 divided by twenty-two
- 11 Twice a prime number
- 12 X15 plus half of Z8
- 13 Mean of X19 and Y11
- 16 Six times a prime number
- 17 Twice a square

Z Direction

- 2 Twice a square
- 3 Y11 minus X15
- 5 Y17 plus Z9
- 6 X16 plus X18
- 7 Fourteen times a prime number
- 8 Thirty-four times Z10
- 9 Twice a square
- 10 Z7 divided by Y7

Solution:

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