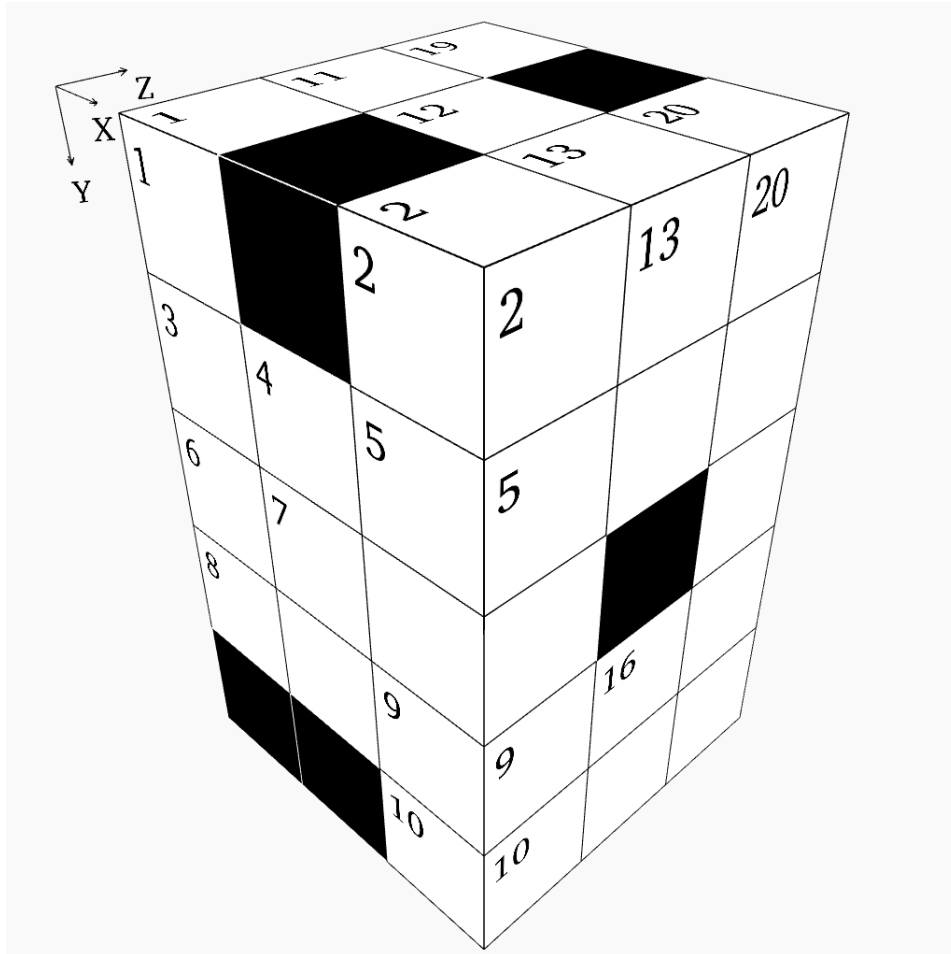


Box - Intermediate Puzzle #45



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	11	12	13	19		20
3	4	5	14					
6	7		15					
8		9			16	21	22	
		10	17	18		23		

X Direction

- 3 Y11 plus Z17
- 6 Mean of X8 and X11
- 8 Mean of X11 and Z17
- 11 Seven less than Z10
- 14 A square
- 15 X11 minus half of Z6
- 17 Fifteen times a prime number
- 21 Mean of Z1 and Y22
- 23 Forty times a prime number

Y Direction

- 1 A prime number
- 2 Last two digits are the same as last two digits of X3
- 4 Twice the result of X6 plus Z2
- 11 Twenty-four more than Z18
- 12 Six times a prime number
- 13 Z18 minus X15
- 16 Z17 minus Y13
- 19 Twenty-five times a prime number
- 20 Mean of Y19 and Z17
- 22 Two-fifths of Y13

Z Direction

- 1 Nineteen times Z7
- 2 X11 plus X3
- 3 Twice the result of Z5 minus Y16
- 4 Twice Y16
- 5 A square
- 6 Mean of X21 and X8
- 7 Z3 divided by five
- 9 Twenty-one times Y16
- 10 Z9 minus X17
- 17 Half of Z10
- 18 Half of Y12, then subtract X8

Solution:

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