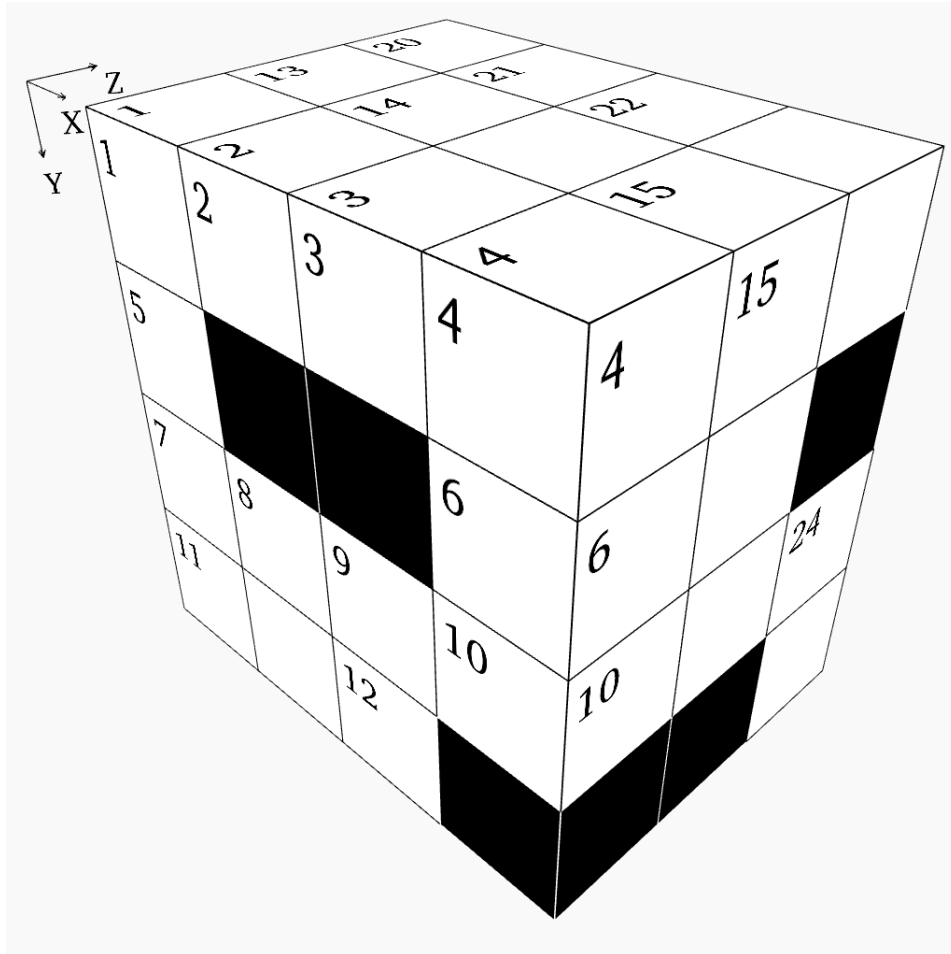


Box - Intermediate Puzzle #31



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:

- "Words" may not start with a zero.
- "Words" in the X direction read from left to right.
- "Words" in the Y direction read from top to bottom.
- "Words" in the Z direction read from front to back.
- There is one unique solution which satisfies all the clues given below.
- 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	13	14		15	20	21	22	
5			6	16	17			23			
7	8	9	10	18		19					24
11		12						25			

X Direction

- 1 Twice the result of X25 plus Y24
- 7 Sixty-eight times a prime number
- 11 Six times a prime number
- 13 Thirty-nine times a prime number
- 16 Z9 plus Y22
- 18 Y4 plus Z11
- 20 Mean of Y13 and Z3
- 23 Z2 plus Y19
- 25 Thirty-one times a prime number

Y Direction

- 1 Consecutive digits unordered
- 4 Same as Z4
- 8 X25 divided by X16
- 9 Y24 minus X16
- 13 Forty-seven times a prime number
- 14 Mean of Y9 and Z12
- 15 Z5 plus Z8
- 19 Two-fifths of Z8
- 20 Twenty-seven times a prime number
- 21 Six times Z17
- 22 Mean of Z6 and Y19
- 24 A square

Z Direction

- 1 Twenty-two times Z17
- 2 Seven times a prime number
- 3 A prime number
- 4 X18 minus Z11
- 5 Z11 divided by three
- 6 Mean of Y19 and Z17
- 7 Half of X11, then subtract X16
- 8 X16 plus Y22
- 9 Two-thirds of Y9
- 10 Ninety-five less than X23
- 11 Mean of Y19 and Z12
- 12 X25 minus X18
- 17 A square

Solution:

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