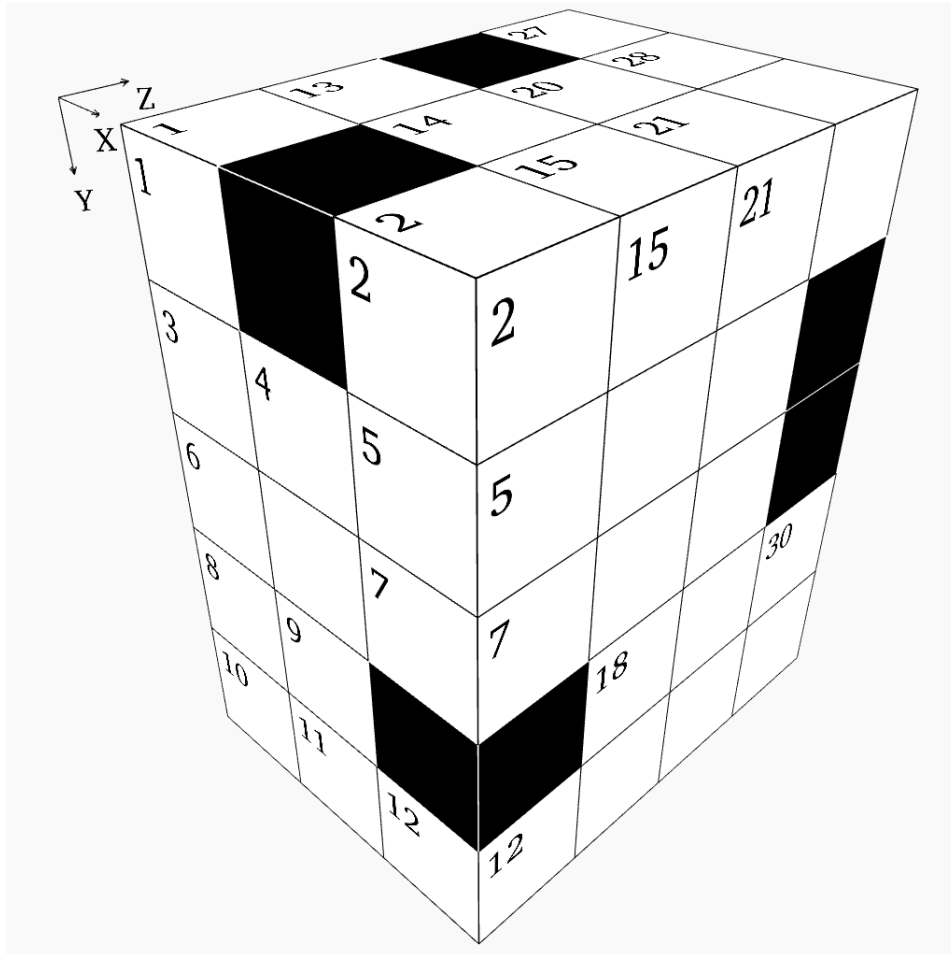


Box - Challenging Puzzle #4



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	13	14	15		20	21	27	28	
3	4	5	16			22					
6		7				23	24				
8	9			17	18	25			29		30
10	11	12	19			26					

X Direction

- 3 X8 plus X16
- 6 X27 plus half of X26
- 8 Z4 minus Z1
- 10 X29 plus X3
- 13 Seventeen times Y14
- 16 Y30 plus Z25
- 17 Mean of Y14 and Z4
- 19 Rearranged digits of X3
- 20 Y30 minus Y14
- 23 X25 plus half of X19
- 25 A square
- 26 Z5 minus Z1
- 27 Four times a prime number
- 29 A prime number

Y Direction

- 1 Z11 times X17
- 2 Z10 plus Z5
- 4 A prime number
- 13 A prime number
- 14 Sum of digits in Z7
- 15 Twice a prime number
- 17 X19 minus Z4
- 21 Ninety-two times a prime number
- 22 Six times X10
- 24 Twenty-nine more than Z7
- 28 Y24 plus X20
- 30 Consecutive digits in descending order

Z Direction

- 1 X16 minus Y30
- 2 Y4 plus Z3
- 3 X19 minus Y14
- 4 X3 minus Y30
- 5 Mean of X23 and Z1
- 7 Twice a prime number
- 9 Ten times X16
- 10 A cube
- 11 X13 plus Z10
- 12 Twenty-eight times a prime number
- 14 X29 minus X19
- 18 Mean of Y24 and Z14
- 24 Ten times a square
- 25 Z4 minus X8

Solution:

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