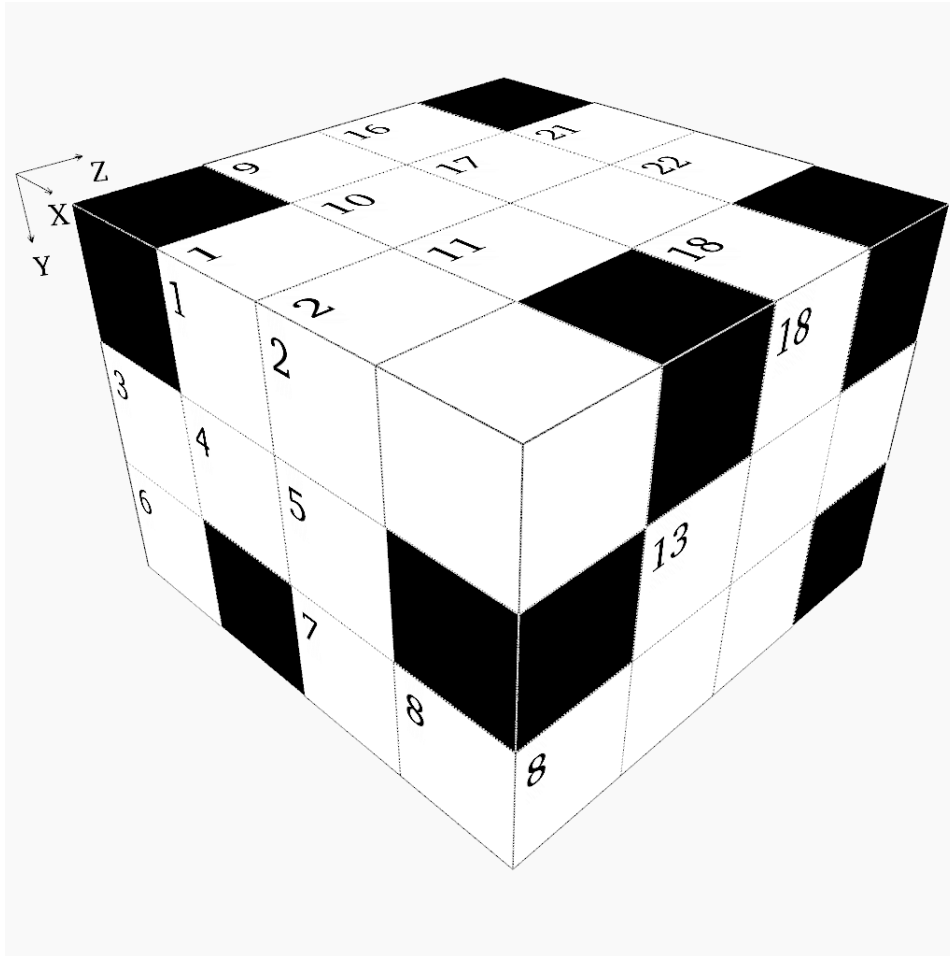


Difficulty: ★★☆☆☆

Box - Challenging Puzzle #7



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		9	10	11		16	17		18		21	22	
3	4	5		12			13	19				23			
6		7	8	14	15				20			24			

X Direction

- 1 Mean of X24 and Z9
- 3 Z13 divided by three
- 7 X24 minus Y21
- 9 Twice the result of Z4 minus Y9
- 12 A prime number
- 14 Twenty-two times a prime number
- 16 A prime number
- 19 Two-thirds of Y16
- 20 Six times a prime number
- 21 Twice the result of Y2 minus Y11
- 23 Forty-two times a prime number
- 24 X1 plus half of Y21

Y Direction

- 1 Y3 divided by three
- 2 Four times a prime number
- 3 Z5 minus Z6
- 9 Twice a prime number
- 10 Twenty-seven times a prime number
- 11 Y17 minus X19
- 13 Twice a prime number
- 16 X3 minus X24
- 17 Z8 minus Y3
- 18 Twice the result of X20 minus Y22
- 21 Fourteen times Y1
- 22 Mean of Z15 and Z13
- 23 Z3 divided by X7

Z Direction

- 1 Mean of X14 and Z13
- 2 Twenty-four times a prime number
- 3 Y23 times Z9
- 4 Fifteen times Z9
- 5 Consecutive digits in descending order
- 6 X19 minus X21
- 7 A prime number
- 8 Two hundred less than X20
- 9 X24 minus Y21
- 13 Y21 plus Z15
- 15 Twice a prime number

Solution:

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