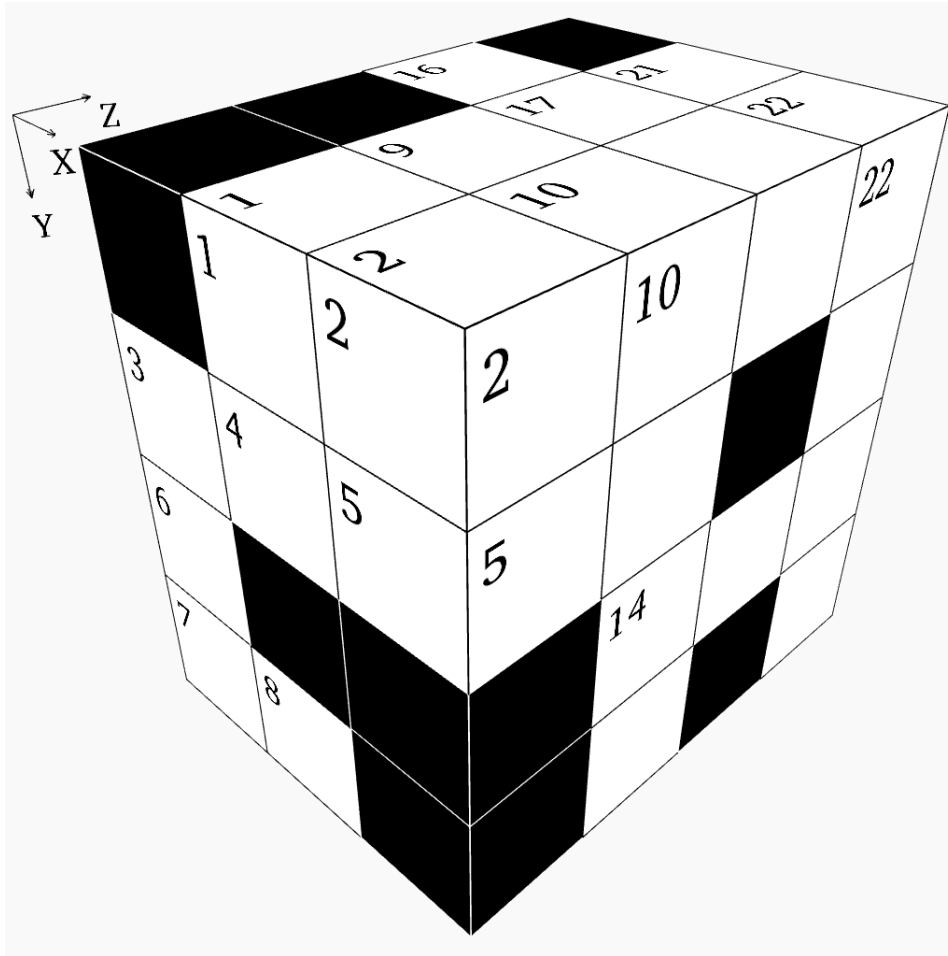


Difficulty: ★★☆☆☆

Box - Challenging Puzzle #59



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	16	17			21	22
3	4	5	11			18				23	
6			12	13	14	19			24		
7	8		15			20			25		

X Direction

- 1 X23 minus X7
- 3 Y3 plus X20
- 7 X16 minus X23
- 9 X21 minus X18
- 11 A prime number
- 12 Half of X3, then subtract Z5
- 15 Z2 minus Z4
- 16 Mean of X20 and X25
- 18 Y24 reversed
- 19 X3 plus X1
- 20 X16 minus X21
- 21 X25 minus X16
- 23 A square
- 24 Mean of X15 and Z5
- 25 Four times X7

Y Direction

- 1 Sum of digits in Z7
- 2 X23 plus X18
- 3 Y17 minus Z14
- 9 One thousand one hundred ninety-one less than Y21
- 10 Nine times a prime number
- 11 Six times a prime number
- 16 A prime number
- 17 One hundred thirty-three less than Z1
- 21 Twice a square
- 22 Y9 plus Z3
- 24 X18 reversed

Z Direction

- 1 Twenty-one times X21
- 2 Twenty-seven times a prime number
- 3 Z13 minus X21
- 4 A palindrome
- 5 Y9 divided by seventy-three
- 6 Half of Z8, then subtract X24
- 7 A prime number
- 8 Fifty-two times X11
- 13 Fifty-two times a prime number
- 14 Twenty-two times a square

Solution:

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