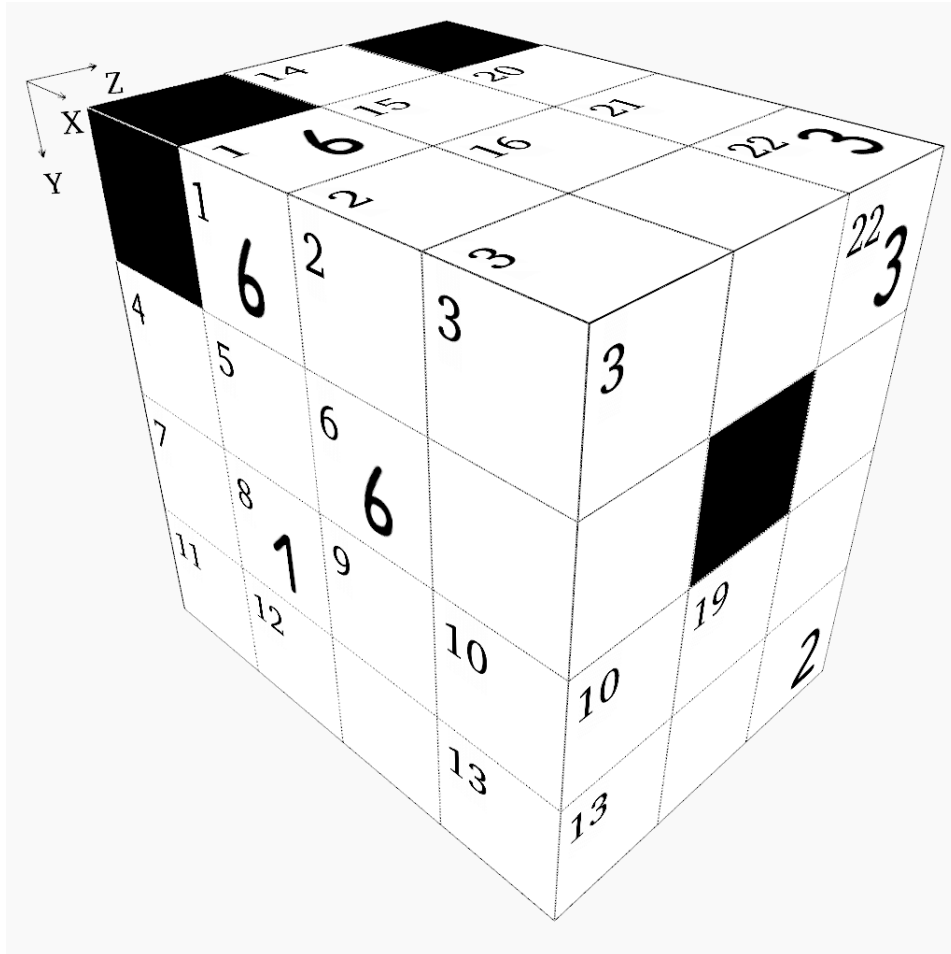


Difficulty: ☆☆☆☆☆

Box - Beginner 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:

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	3	14	15	16			20	21	22
	6										3
4	5	6			17				23		
7	8		10		18		19				
11	12		13						24	4	2

X Direction

- 1 X24 minus Y1
- 4 Mean of Y3 and X11
- 7 Four times Z12
- 11 Twice a prime number
- 14 A prime number
- 17 Four times a prime number
- 18 Sixty-four less than Z13
- 20 Rearranged digits of Z8
- 23 Twice a prime number
- 24 Twice a prime number

Y Direction

- 1 Eighty-five times a prime number
- 2 Three times a prime number
- 3 Forty-four times a prime number
- 4 Half of X23, then subtract X7
- 15 Nine times a prime number
- 16 Z5 minus Z8
- 19 X18 minus half of Z12
- 20 Thirty-four times a prime number
- 21 Seven times a prime number
- 22 Twenty-eight times a prime number

Z Direction

- 1 Thirteen times a prime number
- 2 X14 minus half of Y16
- 3 Mean of X20 and Y15
- 5 Z9 plus Z10
- 6 Y20 minus Z3
- 8 Y22 divided by X17
- 9 Y20 divided by forty-one
- 10 Thirteen times a prime number
- 12 Consecutive digits unordered
- 13 Four times a prime number

Solution:

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