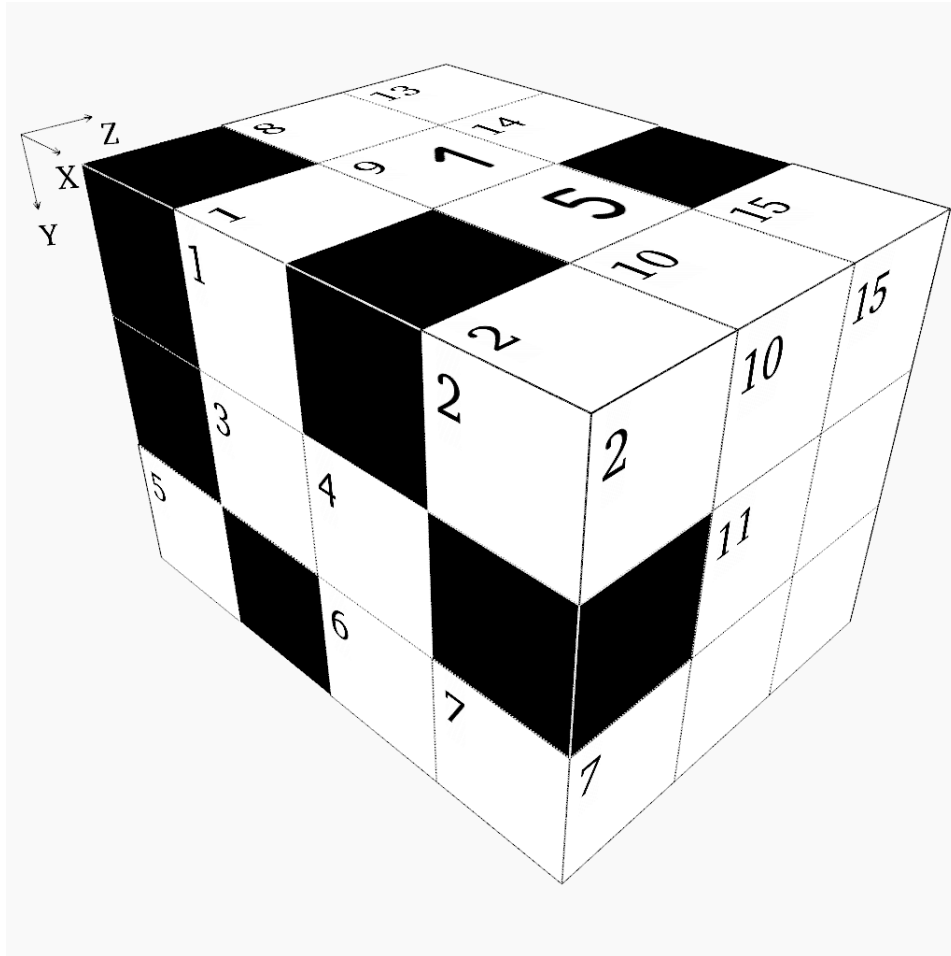


Difficulty: ★★★★★

Box - Beginner Puzzle #29



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	8	9	1	5	10	13	14		15
	3	4				9		11	16		17	1
5		6	7	12							18	

X Direction

- 3 A square
- 6 Same as Y17
- 8 Six times a prime number
- 12 Eighty-four times a prime number
- 13 A square
- 18 Two-thirds of X3

Y Direction

- 1 X12 divided by Z11
- 4 Y10 minus half of Y13
- 9 Same as Z6
- 10 Eight times Z11
- 13 Ten times a prime number
- 14 Half of Y1
- 15 Mean of Z3 and X18
- 17 Sum of digits in X8

Z Direction

- 1 A prime number
- 2 Half of Z5, then subtract Z1
- 3 Six times a prime number
- 5 Sixty-five times Y14
- 6 Thirteen times X6
- 7 Rearranged digits of Y10
- 8 Twice the result of X6 plus Y14
- 11 One less than Z8

Solution:

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