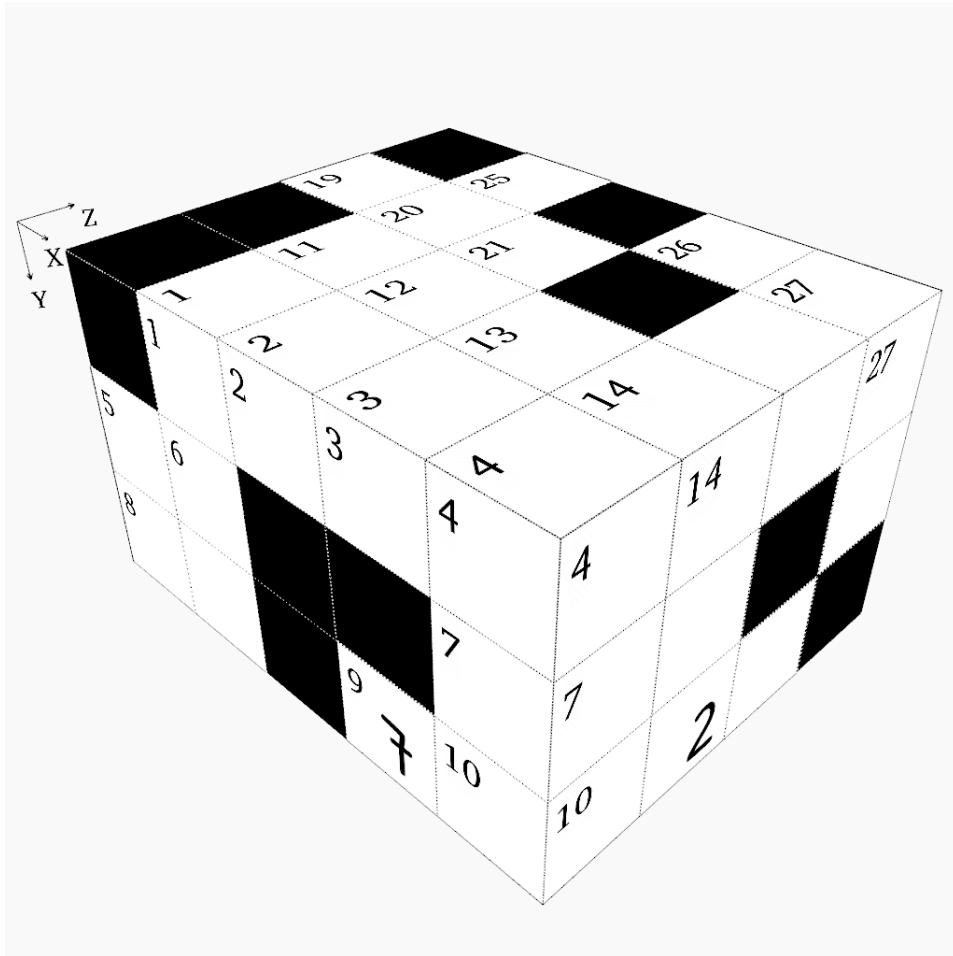


Difficulty: ★★★★★

Box - Beginner Puzzle #34



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	4		11	12	13	14	19	20	21		
5	6			7	15		16	17		22			23	
8			9	7	1		18		2		24	1	4	
						25		26	27					
					3		29	3						
							7							

X Direction

- 1 Nineteen times a prime number
- 5 Y27 minus Y5
- 8 Z2 minus Z10
- 9 Twice the result of X19 minus Y29
- 11 Y13 times Y26
- 15 A prime number
- 18 Seventy-four less than Y4
- 19 Mean of Z3 and Z16
- 22 X15 minus half of Y21
- 24 Mean of X1 and Z7
- 26 Seven times Z8
- 28 Ten times Z5

Y Direction

- 1 X8 times Y25
- 4 Forty-six times Z3
- 5 Y23 minus Z7
- 11 Two-thirds of X19
- 12 X19 plus Z17
- 13 Y11 plus X5
- 14 Two hundred thirty-four less than Y4
- 15 Z4 divided by Z18
- 19 Y1 divided by Z3
- 20 Seventeen times a prime number
- 21 Four times a prime number
- 23 Z3 plus Y26
- 25 Y23 minus Y26
- 26 Mean of X9 and Y27
- 27 Mean of Z7 and X26
- 29 Z3 plus X9

Z Direction

- 1 Four times a prime number
- 2 Y29 plus Y21
- 3 Z7 divided by three
- 4 Z18 times Z8
- 5 Thirty-one times a prime number
- 6 A prime number
- 7 Three times Y25
- 8 Same as Y15
- 9 Twice a prime number
- 10 Z2 minus Y19
- 16 Mean of Y27 and Y12
- 17 A prime number
- 18 A prime number

Solution:

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