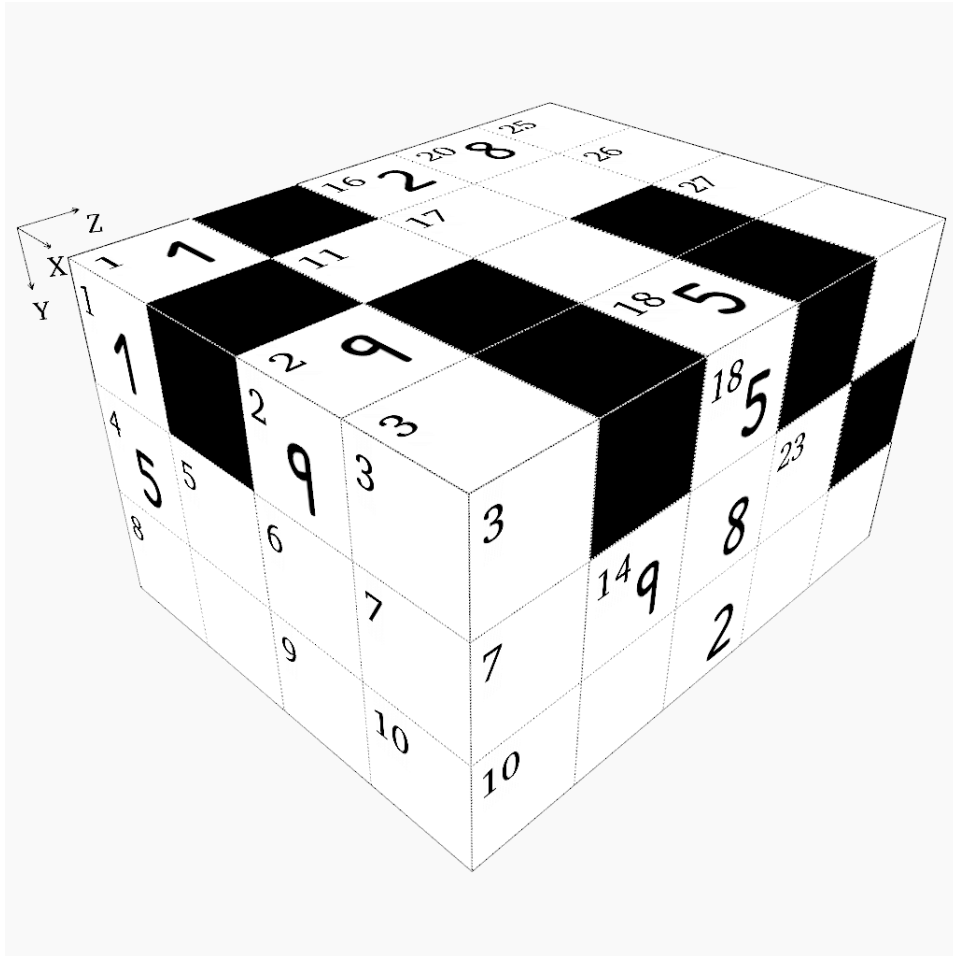


Difficulty: ☆☆☆☆☆

Box - Beginner Puzzle #30



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 1		2 9	3		11			16 2	17		18 5
4 5	5	6	7	12		13	14 9				8
8		9	10			15				19 1	2
				20 8				25	26	27	
				21		22	23	28			
					24	5					

X Direction

- 2 Four times Z8
- 4 Sixteen times a prime number
- 8 Eleven times a prime number
- 12 Nine times a prime number
- 15 X28 minus half of Y20
- 16 Mean of Z6 and X4
- 19 Sum of digits in Y25
- 20 Mean of Z6 and Y11
- 22 Mean of Y22 and Y26
- 24 Fourteen times a square
- 25 Y27 times Z4
- 28 Y5 plus Y23

Y Direction

- 1 Y27 plus Y5
- 2 Eighteen times Z4
- 3 Z16 minus Z4
- 5 Z9 minus X8
- 11 Z22 plus Y23
- 12 Y22 minus X19
- 13 Z21 plus Y27
- 14 X28 minus Z21
- 17 X19 plus X20
- 18 Six times a prime number
- 20 Same as X20
- 22 Mean of Y13 and Z8
- 23 Y5 minus Z22
- 25 Mean of Z4 and Y18
- 26 Y17 minus Y12
- 27 Z8 plus Y12

Z Direction

- 4 X15 minus Z21
- 5 Seventy-two times X19
- 6 Twice the result of X2 minus X22
- 7 Mean of X4 and Y17
- 8 Half of X24, then subtract Y1
- 9 X8 plus Y11
- 10 A prime number
- 11 Three times X16
- 16 A prime number
- 21 Y26 minus Y23
- 22 Mean of Y20 and Y23

Solution:

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