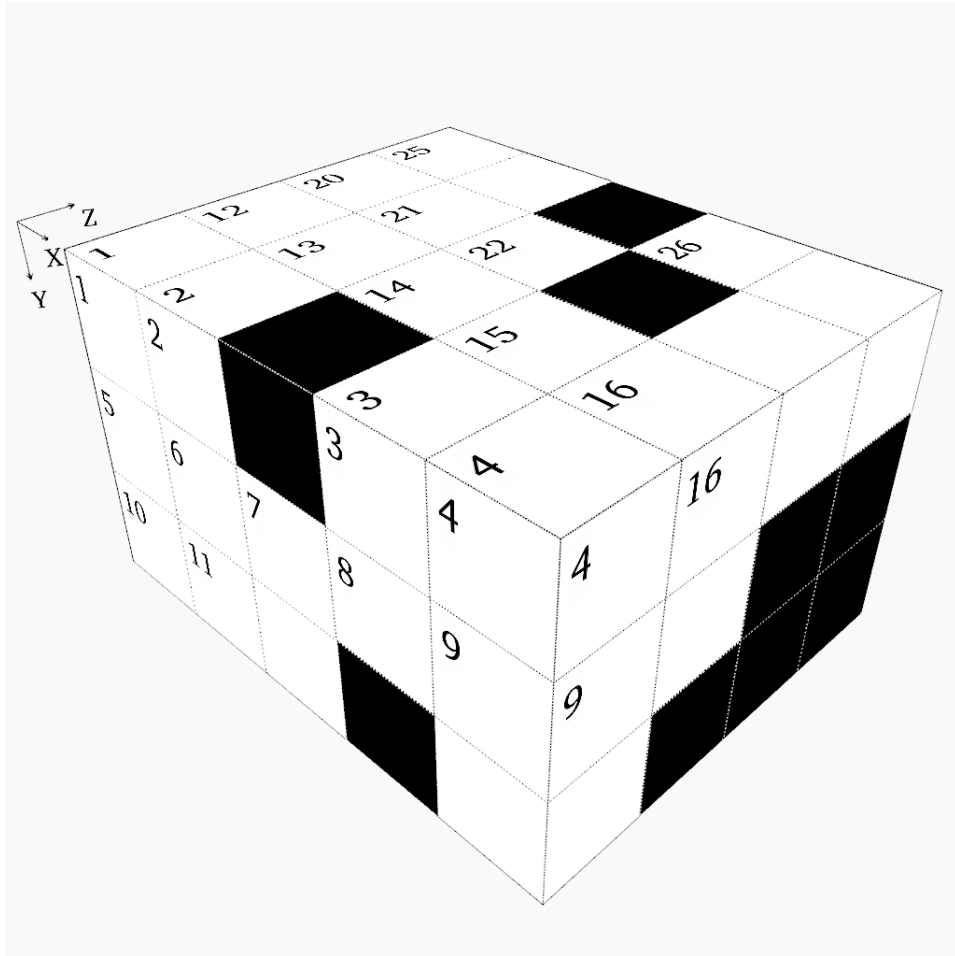


Difficulty: ★★☆☆☆

Box - Challenging Puzzle #41



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

X Direction

- 1 X27 minus Y14
- 3 Y15 minus half of X18
- 5 First two digits are the same as first two digits of Z5
- 10 Six times Y7
- 12 Twice the result of X5 minus X1
- 17 First two digits are the same as first two digits of Z6
- 18 Same as Y20
- 20 X27 plus Z9
- 23 Y21 minus Z19
- 24 Y21 plus Z14
- 25 X26 minus half of Y3
- 26 Same as X3
- 27 Y15 minus Z8

Y Direction

- 1 Twenty-three times Z10
- 2 Mean of X23 and Z9
- 3 Y20 plus Z9
- 4 Z6 plus Y14
- 7 Mean of Y3 and Y16
- 12 Mean of X20 and Y25
- 13 Forty-four times Z14
- 14 Same as Y20
- 15 Y14 plus Z3
- 16 Z3 minus X25
- 20 Y15 minus Z3
- 21 A square
- 22 Four times X26
- 25 Y21 minus X26
- 26 Z11 plus X18

Z Direction

- 1 One hundred two less than Z4
- 2 Seven times a prime number
- 3 Seven times Z14
- 4 A prime number
- 5 Y4 plus Y26
- 6 Y4 minus Y20
- 7 Forty-eight times a prime number
- 8 X25 minus Z10
- 9 Four times Z8
- 10 X1 minus Y16
- 11 Y26 minus Y20
- 14 Z10 reversed
- 19 Mean of Y1 and X27

Solution:

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