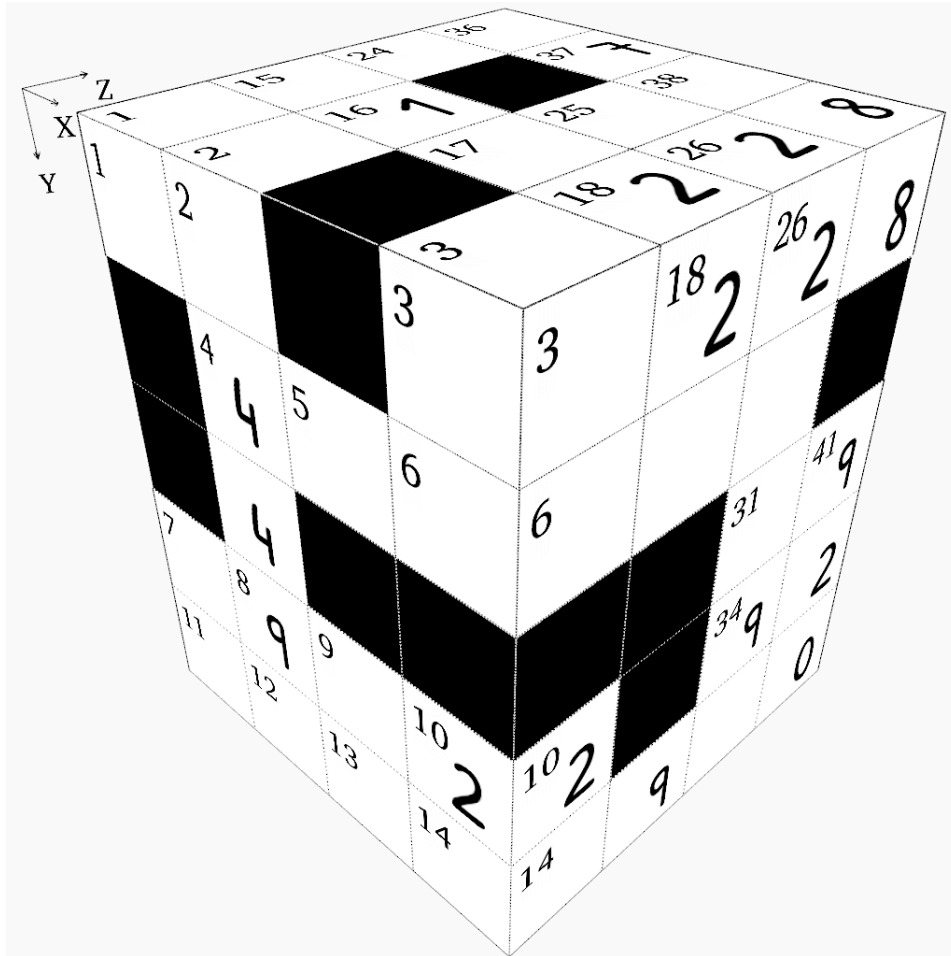


Difficulty: ☆☆☆☆☆

Box - Beginner Puzzle #22



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	15	16	17	18	24		25	26	36	37	38	
					1		2				2		7		8
	4	4	5	6				27	28	1		39			
		4						29	30	9		40	8		41
7	8	9		10	2			32			33	34	9		
11	12							35		0					
							9								0

X Direction

- 1 X19 minus Y43
- 4 Four-fifths of X21
- 7 Mean of Z12 and X36
- 11 Four times a prime number
- 15 Z2 plus Z4
- 19 Four times Z27
- 21 Five times a prime number
- 23 Twenty-three times a prime number
- 25 X40 minus Y25
- 27 Twenty-six times a prime number
- 29 X40 minus Z27
- 32 X36 minus Y33
- 35 One thousand three hundred eighty-three less than Z8
- 36 Y7 plus X32
- 39 Thirty-nine times Z2
- 40 X21 minus Z7
- 42 Fourteen times a prime number
- 44 Mean of X35 and Z12

Y Direction

- 2 Nineteen times a prime number
- 3 A square
- 7 A square
- 9 Z34 minus Y43
- 10 Three-fifths of Y43
- 16 Y9 minus Y22
- 17 Consecutive digits unordered
- 18 Z7 minus X4
- 20 Five times a prime number
- 22 Mean of Y43 and X25
- 24 Four times a prime number
- 25 Mean of Y22 and Y33
- 26 Mean of Y24 and X44
- 28 Ten times a prime number
- 33 A square
- 36 Thirty-seven times Y10
- 37 Thirty-two times a prime number
- 38 Y43 plus X29
- 41 X44 divided by five
- 43 Mean of X29 and Z2

Z Direction

- 1 Sixty-six times a prime number
- 2 Y7 minus Z27
- 3 Z20 plus half of Z14
- 4 X15 minus half of X25
- 5 X23 minus Y28
- 6 Four times a prime number
- 7 Mean of X39 and Z30
- 8 Three times Z5
- 9 Mean of X36 and Z13
- 11 Sixteen times a prime number
- 12 Y36 plus half of X4
- 13 Five times Z7
- 14 Ninety-five times Y9
- 17 X4 minus X40
- 20 Mean of Y36 and Z6
- 27 X40 minus Z31
- 30 Y9 plus Y25
- 31 Mean of Z30 and Z2
- 34 Mean of X1 and X19

Solution:

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