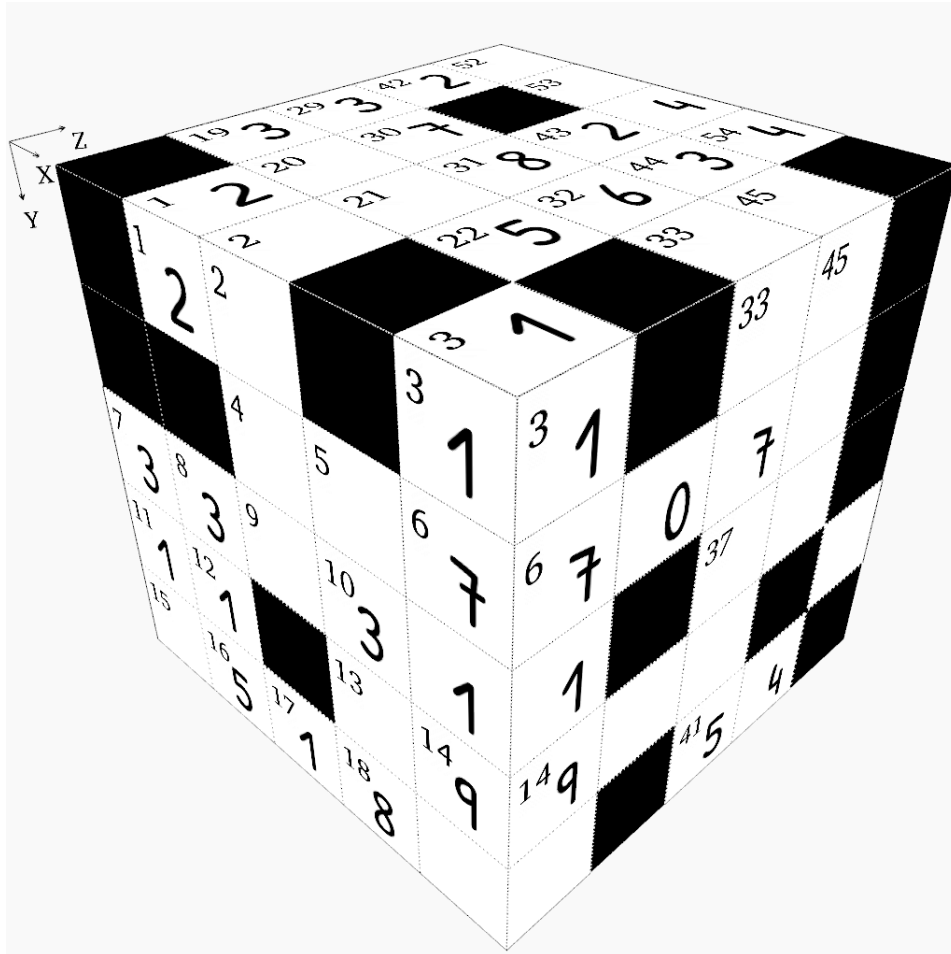


Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #13



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 cube pictured above and divide it into individual X-Y layers, we will get these planes:

1	2		3	1	19	20	21	22	5		29	30	31	32	33
		4		6	7	23	24		2	0		34	2		7
7	3	3	9	3	1		25	7	8	8		35	2	36	37
11	1	1		13	9	26		27	1		38	1	39	8	
15		5	17	8		28			9		40	9	8		41

42	2		43	2	44	3	45	52		53		54	4	4	
46								55		7					
			47			3					56		8		
48	1		49		1			57	58	8		8			
50		6			51	6	4	59	4	5					

X Direction

- 1 Sum of digits in Z2
- 4 X56 plus half of Y2
- 7 Four thousand seven hundred seven less than Z10
- 11 Z8 minus Y26
- 13 X55 minus X56
- 15 Two thousand six hundred ninety-eight less than Y54
- 19 Z19 plus half of Z18
- 23 Mean of Y32 and Y54
- 25 Four times a prime number
- 26 Y33 minus half of X25
- 28 Z35 times Y49
- 29 First two digits are the same as Z8
- 34 Three times a prime number
- 36 Thirteen times X1
- 38 One thousand two hundred thirty-two more than Z12
- 40 Twice the result of Y45 minus Y56
- 43 Four-fifths of Y45
- 46 Two thousand three hundred ninety-two more than Y42
- 47 Y19 plus X40
- 48 Fifty-five times Z33
- 50 Four times Z17
- 51 A square
- 52 Sixty-nine times X50
- 55 Z17 plus X56
- 56 Mean of Z46 and Y19
- 57 Its digits total Y53
- 59 Seventy-four times a prime number

Y Direction

- 2 Eighteen times a prime number
- 3 Twelve times a prime number
- 5 Y31 plus X25
- 7 X36 minus Z8
- 8 Rearranged digits of X36
- 19 Z37 plus Z33
- 20 Seven thousand four hundred eighteen less than X15
- 21 Two thousand fourteen more than Z16
- 22 Ten times a prime number
- 26 X28 divided by Z35
- 30 X1 reversed
- 31 Mean of Z12 and X43
- 32 Eighty-one times X50
- 33 Y58 plus X23
- 35 Y56 minus Z33
- 39 Four times Z33
- 42 Sixty-three times a prime number
- 43 X23 minus X46
- 44 Six times a prime number
- 45 Twenty-nine times Z37
- 49 Mean of X56 and Z46
- 52 Twenty-six times a prime number
- 53 A cube
- 54 Four times a prime number
- 56 Mean of Y58 and X4
- 58 Mean of X40 and Y30

Z Direction

- 1 Z35 minus X56
- 2 Last two digits are the same as Z46
- 4 X19 minus Y8
- 5 A prime number
- 6 A prime number
- 8 X51 minus X1
- 9 Eleven thousand four hundred eighty-eight more than Z2
- 10 Eighteen times a prime number
- 11 Twenty-one times a prime number
- 12 Twenty-eight times a prime number
- 13 Y31 plus half of Y32
- 14 Y54 minus Z15
- 15 Six times a prime number
- 16 Ten thousand nine hundred eighty-one more than Y54
- 17 Mean of X56 and Z37
- 18 Eight times Z37
- 19 Two hundred seventy-five more than Z4
- 22 Consecutive digits unordered
- 24 One hundred seventy-eight more than Z6
- 27 Forty-two times a prime number
- 33 X40 minus X50
- 35 Y56 plus Z46
- 37 X55 minus Z8
- 41 Mean of Z37 and X40
- 46 Y42 minus half of X15
- 51 A cube

Solution:

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

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