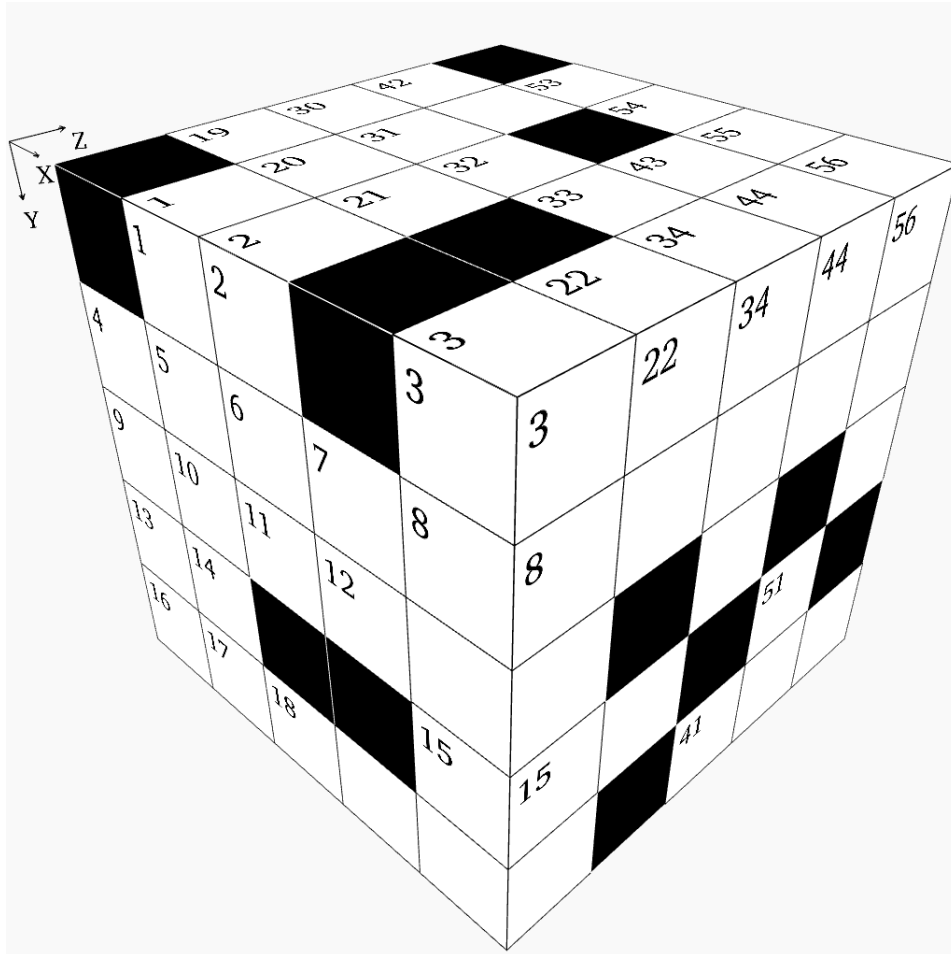


Difficulty: ★★★★★

Cube - Hard Puzzle #25



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	19	20	21	22	30	31	32	33	34	
4	5	6	7	8	23		35					
9	10	11	12		24	25				36		
13	14	15			26	27	28			37	38	
16	17	18			29					39	40	41
42		43	44	53	54	55	56					
	45	46		57								
47	48	49		58								
50			51	59								
	52											

X Direction

- 1 Half of X29, then subtract Y30
- 4 A prime number
- 9 Six times a prime number
- 13 Mean of Z13 and Z49
- 16 Y42 plus X58
- 19 Mean of Y34 and X43
- 23 Fifteen times Z50
- 24 Mean of Z19 and X30
- 26 Thirteen times a prime number
- 29 Twenty-eight times Y38
- 30 Three thousand one hundred eighty-seven more than Z12
- 35 Six times a prime number
- 36 Z46 minus Y25
- 37 Mean of Z41 and X13
- 39 Z27 times Y31
- 42 X53 divided by Z40
- 43 Mean of X13 and Z13
- 45 Z14 minus Y57
- 47 Thirty-eight times a prime number
- 50 Forty-eight times a prime number
- 52 Last two digits are the same as Y51
- 53 Forty-six times Y22
- 57 A prime number
- 58 Ninety-two times a prime number
- 59 Z10 minus Y7

Y Direction

- 1 A prime number
- 2 Eleven times Z11
- 3 Y36 times Z11
- 4 Y45 minus Y7
- 7 Y22 minus Y38
- 19 Mean of X9 and Z10
- 20 Eight thousand four hundred ninety-four more than Y1
- 21 Sixteen times a prime number
- 22 Mean of Y7 and Z13
- 25 Mean of X42 and X36
- 30 Z50 plus Z33
- 31 Mean of X43 and X59
- 32 X1 plus Y38
- 34 Mean of Z27 and X43
- 36 Y3 divided by Y51
- 37 Y44 minus Y48
- 38 Same as Y37
- 42 Twenty times a prime number
- 43 One thousand one hundred seventy-one less than Y20
- 44 X45 divided by Y7
- 45 Eighty-two times a prime number
- 48 A square
- 51 Z41 minus Z5
- 53 Three times a prime number
- 54 Y2 minus Z48
- 55 Mean of X24 and Y34
- 56 Mean of Y54 and Z27
- 57 Ten times a prime number

Z Direction

- 1 Eight thousand four hundred eighty-seven more than Z9
- 2 X52 minus Z15
- 3 Twice the result of Z18 minus Z15
- 4 Three times a prime number
- 5 Z33 minus X13
- 6 Twice the result of Z12 minus Z2
- 8 Ten thousand seven hundred eighty-three less than X9
- 9 Eleven thousand ninety-two less than Y43
- 10 Y25 plus Z13
- 11 Mean of Z10 and Y22
- 12 Eighty-one times a prime number
- 13 X37 minus X36
- 14 A prime number
- 15 Y48 plus X43
- 16 Seventeen thousand five hundred forty-one less than X57
- 17 Z8 divided by Z5
- 18 Y32 plus X30
- 19 Mean of Z49 and Z17
- 27 X52 plus X13
- 28 Its digits total Y48
- 33 Mean of X19 and Y25
- 40 X36 plus Y7
- 41 A square
- 46 X59 plus Y7
- 48 Z11 minus Z49
- 49 Half of Z10
- 50 A cube

Solution:

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

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