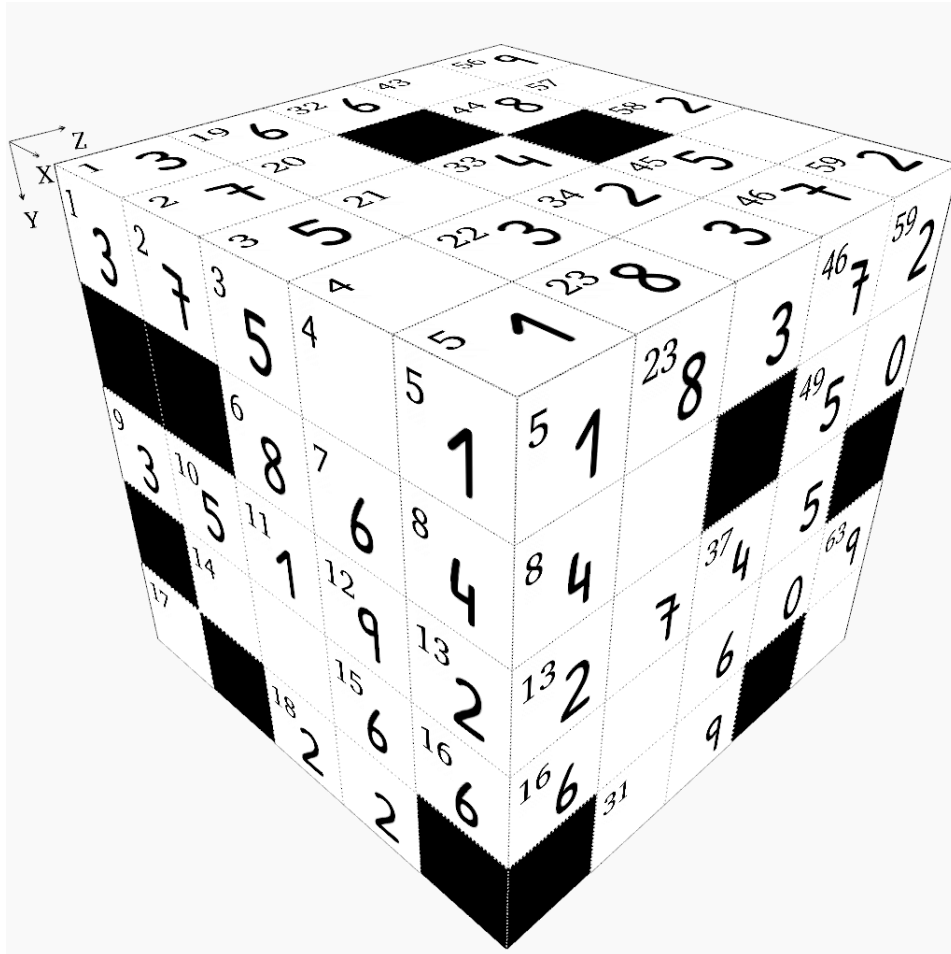


Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #24



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 3	2 7	3 5	4	5 1	19 6	20	21	22 3	23 8	32 6		33 4	34 2		3
		6 8	7 6	8 4	24 4	25 6		6		35 2	6	9	6		
9 3	10 5	11 1	12 9	13 2	26 4	6	8	3	7				36 7	37 4	
	14		15 6	16 6	27	8		28		38 6	39	40	1	6	
17		18 2	2		29	30 1			31	41			42 4	9	

43	44 8		45 5	46 7	56 9	57	58 2		59 2
47 7	9	48 7		49 5		60 5	5		0
50 6	51 2	52 5		5	61 3				
53 1	0	0		0	62				63 9
54	5	55 6	7		64				

X Direction

- 1 Eight hundred sixty-two more than Z1
- 6 Z8 times Z11
- 9 Six thousand eight hundred eighty-six more than Z14
- 14 Twice a prime number
- 18 X27 minus Z10
- 19 Y19 plus X14
- 24 Four times a prime number
- 26 Seven times a prime number
- 27 X29 plus X45
- 28 Sum of digits in X56
- 29 Y33 minus Z51
- 33 Y61 plus Z44
- 35 Z13 minus Y33
- 36 Y10 plus X18
- 38 Twenty-four times a prime number
- 41 Z52 minus X18
- 42 A square
- 43 X45 plus X29
- 45 Mean of Y63 and Y59
- 47 Five thousand two hundred forty less than Z6
- 50 Last two digits are the same as last two digits of Z6
- 53 Seventy times a square
- 54 A prime number
- 56 Twenty-one thousand six hundred one more than Y43
- 60 Mean of Z52 and X45
- 61 Mean of Z27 and X45
- 62 X53 divided by Z51
- 64 Eight times a prime number

Y Direction

- 3 Six times a prime number
- 4 Eighteen times a prime number
- 5 Forty-six times X41
- 10 Mean of X60 and X42
- 19 Eight times a prime number
- 20 Twelve thousand eight hundred sixty-five more than X38
- 21 Half of Z40, then subtract Y10
- 22 Sixteen times a prime number
- 23 X50 plus half of Z17
- 32 Nine hundred forty-six less than Z16
- 33 A square
- 34 Seventy-four times a square
- 37 Mean of X6 and X36
- 39 Sum of digits in Z12
- 43 A prime number
- 44 Twelve thousand five hundred twenty-four more than Y20
- 45 Three times a prime number
- 46 Fifty times a prime number
- 48 Fifty-four times a prime number
- 57 Seventeen times a prime number
- 58 A prime number
- 59 Y63 minus X36
- 61 Twice a prime number
- 63 Z55 plus X41

Z Direction

- 1 Its digits total X41
- 2 X45 plus Y59
- 3 Six times Z44
- 4 X64 minus Z52
- 5 Twelve times a prime number
- 6 Seventeen thousand six hundred thirty-seven more than X19
- 7 Three times a prime number
- 8 Z2 minus Z31
- 9 Mean of Y32 and Z7
- 10 Mean of Z44 and X28
- 11 X42 minus Y39
- 12 Rearranged digits of X47
- 13 X42 plus X35
- 14 Twice a prime number
- 15 Twice a prime number
- 16 Fourteen thousand two less than Y43
- 17 Rearranged digits of Z4
- 24 Forty-two less than Y37
- 25 Sixty-five times a prime number
- 27 Y46 plus Z55
- 30 X38 minus Y32
- 31 X27 minus Y33
- 40 Forty times Y59
- 42 Five times Y63
- 44 A prime number
- 49 X43 minus Z51
- 51 Z2 minus X42
- 52 Y39 plus X18
- 55 X33 minus X62

Solution:

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

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