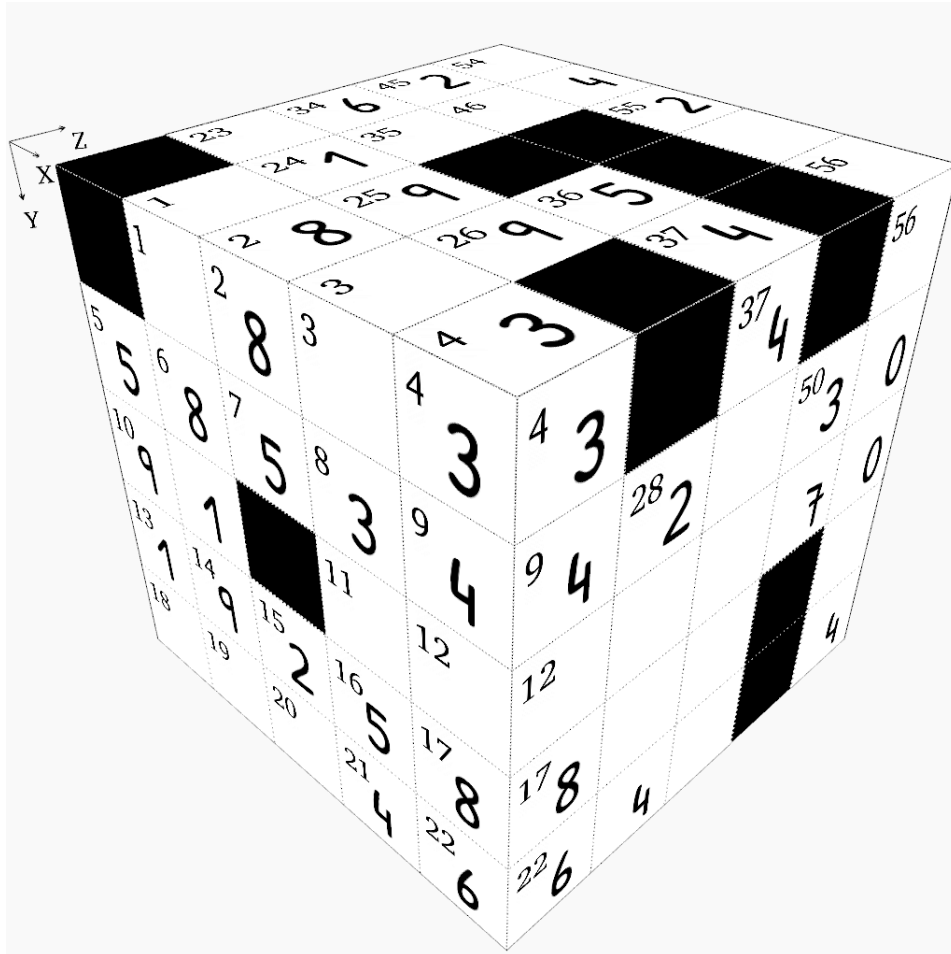


Difficulty: ☆☆☆☆☆

Cube - Beginner Puzzle #28



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	4	23	24	25	26		34	35		36	37				
		8		3		1	9	9		6			5	4				
5	5	8	5	3	4	27	2			9	2		38	39	2			
10	9	1							29				40	41	42			
13	1	9	2	5	8	30		31	32				43	1		4		
18				4	6	33		9			9	4	44	2		7		

45	2	46				54		4	55	2		56
47	4		48	9	3	50			0		0	
51	4			52	8	7	57	58	1	7	0	
	8			6			59	8	5			
53	4	2	1				60	2	0	0		4

X Direction

- 1 Z6 plus Z42
- 5 Sixteen thousand three hundred four less than X30
- 10 Y50 plus X36
- 11 Mean of Z16 and X34
- 13 Twice a prime number
- 18 Seven thousand seven hundred ninety-two more than Y3
- 23 Three times a prime number
- 27 Thirty-six times a prime number
- 29 X34 minus Y50
- 30 Y54 minus Z47
- 33 Fifty-eight times a prime number
- 34 Mean of X59 and Y50
- 36 Two-thirds of Y32
- 38 Y28 divided by twenty-seven
- 40 A square
- 43 Twice Y48
- 44 First two digits are the same as first two digits of Z15
- 45 Mean of Y24 and X29
- 47 Six thousand thirty-three less than Z21
- 51 Nine times a prime number
- 53 Seventy-eight times X36
- 54 Twenty-three thousand eight hundred fifty-four less than Z10
- 57 Twelve thousand eight hundred twenty-four more than X18
- 59 X34 plus X29
- 60 Two thousand eight hundred seventy-six more than Z13

Y Direction

- 1 Seven thousand seventy-seven more than Z1
- 2 X29 plus X34
- 3 Eighty-six times a prime number
- 4 Half of X18, then subtract Z17
- 5 Y48 times X34
- 15 Y40 minus Z2
- 23 Three thousand one hundred seventy-eight more than Y35
- 24 Y32 reversed
- 25 X11 plus Z8
- 26 Seven times a prime number
- 28 Forty-six times X36
- 31 A square
- 32 X11 plus X29
- 35 Ninety-eight times Y55
- 37 Mean of Y35 and Z18
- 39 Seven times a prime number
- 40 X40 minus X11
- 45 Four thousand two hundred sixteen less than X44
- 46 A square
- 48 Y46 minus X29
- 49 Twice a prime number
- 50 Mean of Z16 and X45
- 54 Nine thousand two hundred eighty-eight less than X57
- 55 Y40 plus Z2
- 56 Eight thousand three hundred fifty-four more than Z20
- 58 Twenty-five times Y24

Z Direction

- 1 Twice a prime number
- 2 Z5 plus Y50
- 3 Z41 plus Y32
- 5 Same as Z11
- 6 Last two digits are the same as last two digits of X27
- 7 Mean of Y3 and Z21
- 8 X10 minus Z11
- 9 Ten times a prime number
- 10 Twelve times a prime number
- 11 X53 divided by Y32
- 12 Rearranged digits of Y37
- 13 Y56 minus Y23
- 14 Thirteen times a prime number
- 15 Four times a prime number
- 16 Y48 minus Z47
- 17 A prime number
- 18 Seven thousand nine hundred twenty-eight less than X57
- 19 Twenty times a prime number
- 20 Three thousand seventy-six less than Y4
- 21 Six times a prime number
- 22 Ten times a square
- 23 Seventy-one times Y50
- 41 X54 divided by Y46
- 42 A prime number
- 47 Y32 minus Y50
- 52 Mean of Y46 and Z16

Solution:

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

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