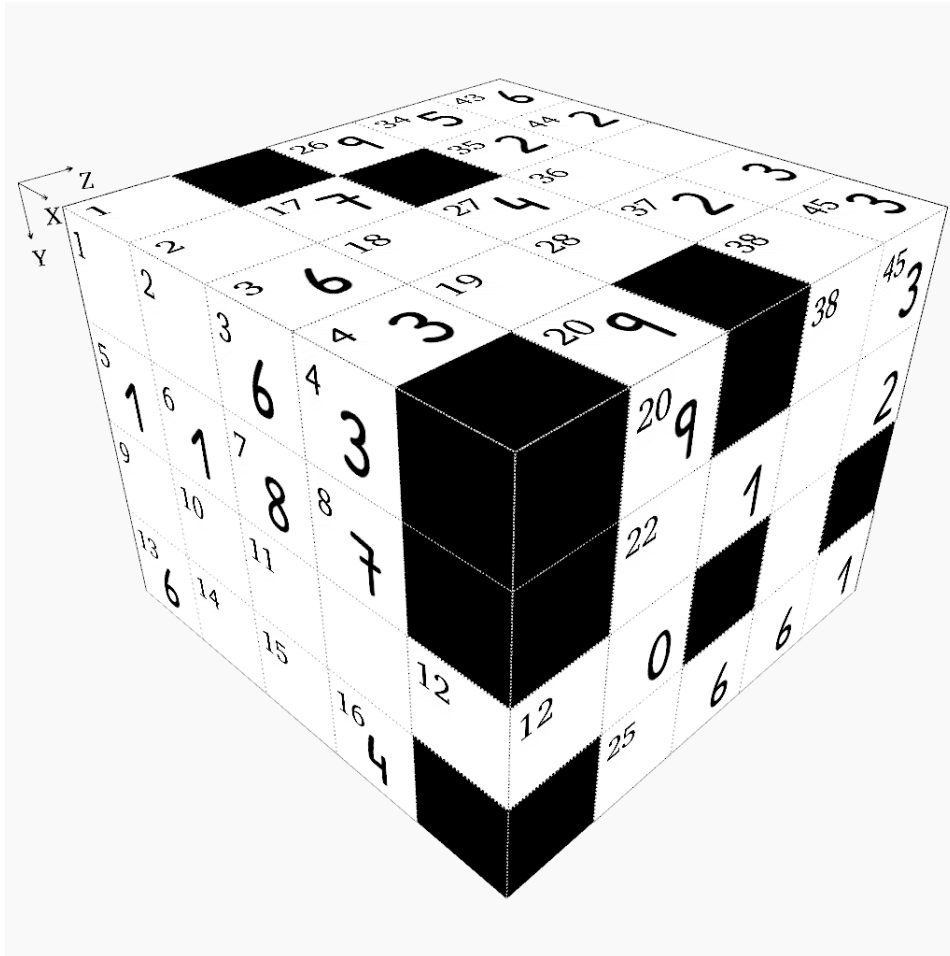


Difficulty: ☆☆☆☆☆

Box - Beginner Puzzle #11



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	4			17	18	19	20	26		27	28	
		6	3			7			9	9		4		
5	6	7	8		21		3	4	22	29	30		0	1
1	1	8	7											
9	10	11		12	23	2	1		0	31	9	4	32	
					8					3				
13	14	15	16		24		4		25	33	8	5	6	6
6			4											

34	35	36	37	38	43	44		3	45
5	2		2		6	2			3
39	3	3	0	7	46	5			2
40	7			41	47		2	48	
42	1		6					49	1

X Direction

- 1 Y26 plus X46
- 5 Mean of X40 and Y35
- 9 A prime number
- 13 Rearranged digits of Z15
- 17 Two thousand ninety-nine less than Y26
- 21 Forty-one times a prime number
- 23 A prime number
- 24 Last two digits are the same as last two digits of Y1
- 27 X40 minus X46
- 29 First two digits are the same as first two digits of Y26
- 31 Eleven times a prime number
- 33 Last two digits are the same as last two digits of Y2
- 34 Seven thousand seven hundred thirteen less than Z14
- 39 Four times a prime number
- 40 Sixteen less than Y48
- 41 Y45 plus X49
- 42 Twice a prime number
- 43 A prime number
- 46 Sum of digits in X34
- 47 Y4 minus half of Y28
- 49 Mean of X46 and Z2

Y Direction

- 1 Twice the result of Y27 minus Z38
- 2 Mean of Y26 and Y18
- 3 A square
- 4 One hundred seventy-five less than X31
- 17 Ninety-nine times Y36
- 18 Twice a prime number
- 19 Consecutive digits in ascending order
- 20 One thousand eight hundred ninety-nine more than Z8
- 21 Two hundred forty-six less than X47
- 26 Twice a prime number
- 27 Forty-six times a prime number
- 28 Y34 minus Y37
- 30 Five times a prime number
- 34 One thousand two hundred ninety less than Z25
- 35 A square
- 36 Six less than Y48
- 37 Three times X41
- 38 Sixty-eight times a prime number
- 43 Twenty-seven times a prime number
- 44 A prime number
- 45 Z12 plus Z35
- 48 X49 plus X46

Z Direction

- 2 A prime number
- 3 Five times a prime number
- 4 Seven times a prime number
- 5 Four hundred ninety-four less than X24
- 6 X24 minus half of Y21
- 7 Two thousand seventy-nine more than Z13
- 8 Nine times a prime number
- 9 Five thousand five hundred more than X9
- 10 Sixty-six times a prime number
- 11 Thirty-seven times Z35
- 12 Y36 minus X40
- 13 One thousand one hundred eighty-nine more than Y28
- 14 Thirteen times a prime number
- 15 Twice a prime number
- 16 Twice a prime number
- 22 Y19 times X41
- 25 A prime number
- 26 Four times a prime number
- 32 Twice a prime number
- 35 Z38 minus X49
- 38 X41 minus Z12

Solution:

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

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