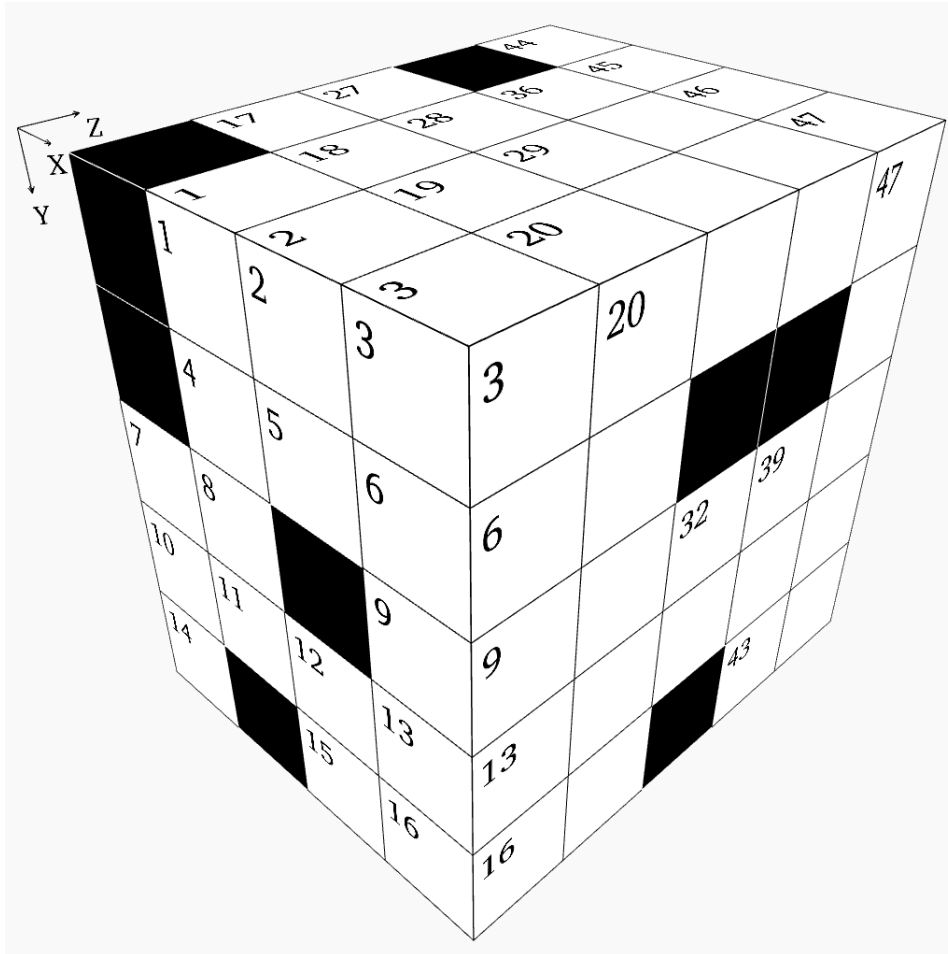


Box - Hard Puzzle #38



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	17	18	19	20	27	28	29	
	4	5	6	21				30			
7	8		9	22		23				31	32
10	11	12	13	24				33	34		
14		15	16	25	26			35			

			36			44	45	46	47
	37					48			
	38				39			49	
		40	41				50		
	42			43		51			

X Direction

- 1 Five times a prime number
- 4 Seven times X37
- 7 X42 divided by seventy-one
- 10 Twice the result of X48 minus X44
- 15 Y39 minus X4
- 17 Sixty-seven times Z8
- 21 X22 minus X1
- 22 Rearranged digits of X27
- 24 X40 times Z17
- 25 Forty times a prime number
- 27 One thousand three hundred fifty-three less than X25
- 30 A prime number
- 31 X24 divided by X40
- 33 A prime number
- 35 X36 reversed
- 36 X10 divided by X31
- 37 X15 minus X49
- 38 X17 divided by X36
- 40 Y12 plus Y28
- 42 Mean of X27 and Y27
- 44 Thirty-three times a prime number
- 48 A prime number
- 49 A square
- 50 Half of X25, then subtract X33
- 51 A cube

Y Direction

- 1 Rearranged digits of X33
- 2 Half of Y3, then subtract Z4
- 3 Eighty-six times a prime number
- 7 Twenty-two times Y41
- 12 Y7 divided by twenty-two
- 17 Seven thousand fifty-eight more than Z4
- 18 Eighty-two times a prime number
- 19 Twice a prime number
- 20 Four thousand three hundred twenty-two less than Y18
- 27 Mean of Z16 and Y44
- 28 X51 divided by Y41
- 29 Y36 plus Y45
- 32 Y46 minus Z9
- 33 Mean of Y27 and X38
- 34 A square
- 36 Last two digits are the same as last two digits of X21
- 37 Mean of X31 and Y33
- 39 Half of X35, then subtract X15
- 41 Z8 minus X31
- 44 X7 minus half of Y12
- 45 Mean of Y41 and Z43
- 46 Z9 plus Z23
- 47 Eighteen times a prime number
- 50 X37 plus Z16

Z Direction

- 1 Twenty-one times a prime number
- 2 Six thousand six hundred ninety-six less than Y20
- 3 Twenty-seven times a prime number
- 4 Two thousand three hundred sixty-four more than Y36
- 5 X35 minus Y39
- 6 Z16 plus X31
- 7 X4 divided by seven
- 8 Z17 plus Y41
- 9 Y46 minus Y27
- 10 Four times a prime number
- 11 A prime number
- 12 Thirty-eight times a prime number
- 13 A prime number
- 14 A prime number
- 15 Seventy-four times a prime number
- 16 Y50 minus Z7
- 17 Mean of Y37 and Z7
- 21 Y7 times Y34
- 23 Z17 reversed
- 26 Mean of X30 and X27
- 43 Y28 minus Y45

Solution:

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