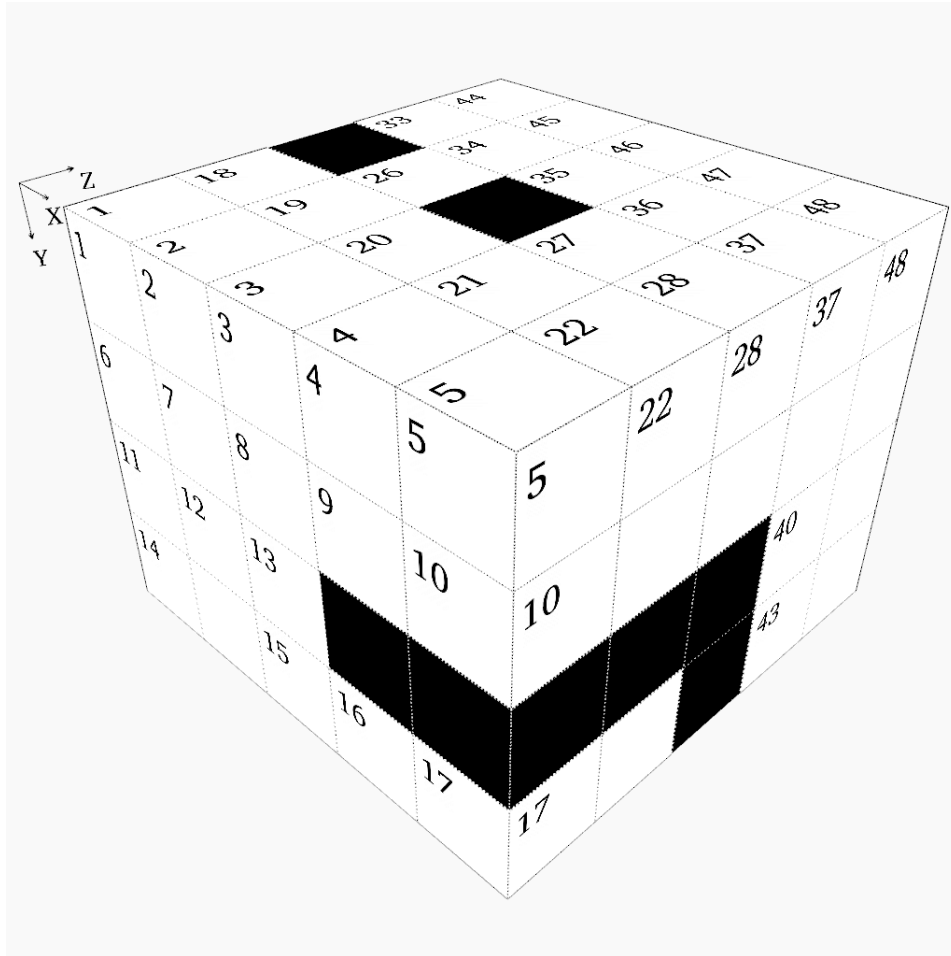


Difficulty: ★★★★★

Box - 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 box pictured above and divide it into individual X-Y layers, we will get these planes:

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

33	34	35	36	37	44	45	46	47	48
38					49				
39				40	50			51	
41				42	52			53	

X Direction

- 1 Z5 plus Y47
- 6 A prime number
- 11 Five times Y22
- 14 Four times a prime number
- 18 Z12 plus X52
- 23 Ninety-seven times a prime number
- 24 Y5 times X27
- 25 Half of Y30, then subtract Z38
- 27 Mean of Z43 and Y28
- 29 Z10 divided by six
- 31 X52 plus Z3
- 32 A square
- 33 Last two digits are the same as last two digits of X1
- 38 Ten thousand seventy-three less than Z5
- 39 Mean of Z3 and X27
- 41 Z35 minus Z14
- 42 Z40 minus Y5
- 44 Thirty-five times a prime number
- 49 Four times a prime number
- 50 X39 minus Y4
- 51 Twice the result of Z8 minus X23
- 52 Z6 plus Z1
- 53 Z3 minus Z35

Y Direction

- 1 Y5 plus Y26
- 2 Thirteen times a prime number
- 3 X52 plus Y26
- 4 Half of Y28
- 5 Z32 minus X32
- 18 Thirty-one times a prime number
- 19 A square
- 20 Four times a prime number
- 21 Z11 minus Z4
- 22 Z41 plus X50
- 26 Y37 minus Z41
- 27 Mean of Z41 and X42
- 28 Y46 minus Z41
- 30 Four times a prime number
- 33 Seventy-seven times Z6
- 34 Mean of X29 and X53
- 35 X27 plus Z33
- 36 Y37 minus Y26
- 37 Eleven times a prime number
- 44 Twenty-one times a prime number
- 45 Two hundred thirty-six less than Y48
- 46 Y36 plus Y28
- 47 Nine times a prime number
- 48 Twice a prime number

Z Direction

- 1 Z17 minus Z41
- 2 Its digits total X42
- 3 Mean of Z17 and Y35
- 4 Two thousand two hundred thirteen less than Z10
- 5 Nine thousand seven hundred fifty more than Z2
- 6 Y35 minus Y36
- 7 A prime number
- 8 A prime number
- 9 Thirteen times a square
- 10 A square
- 11 Twenty-two times a square
- 12 Four thousand two hundred thirty-nine less than X23
- 13 X6 minus X14
- 14 Z17 minus X39
- 15 Twice a prime number
- 16 Rearranged digits of X33
- 17 Y36 plus Z1
- 32 Twenty-two times a prime number
- 33 X52 minus Z3
- 35 Mean of Y22 and Z1
- 38 Mean of X53 and X52
- 40 X32 minus half of Z32
- 41 X51 minus Z6
- 43 Half of Z17, then subtract Z33

Solution:

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

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