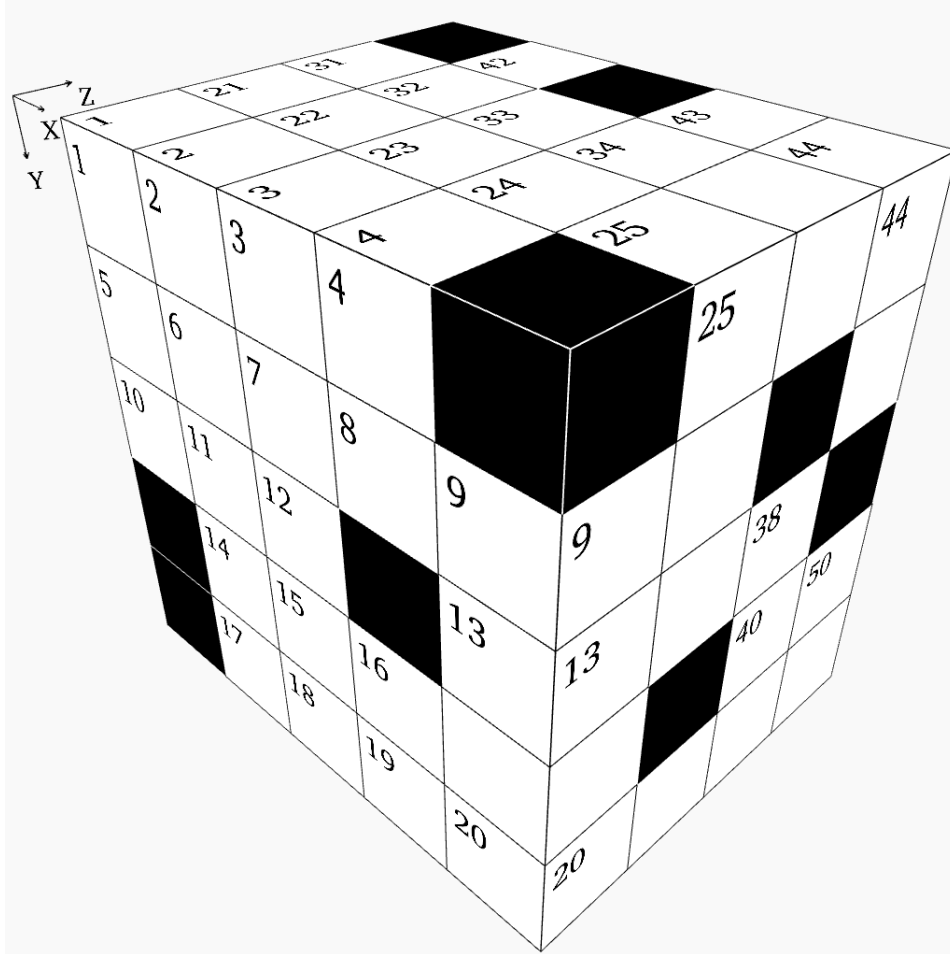


Box - Hard Puzzle #12



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		21	22	23	24	25	31	32	33	34	
5	6	7	8	9	26					35				
10	11	12		13	27			28		36			37	38
	14	15	16		29							39		40
	17	18	19	20	30					41				
						42		43	44					
					45		46							
					47									
					48			49	50					
					51									

X Direction

- 1 First two digits are the same as Y49
- 5 Three times a prime number
- 10 X14 divided by Z28
- 14 X10 times X43
- 17 Twice the result of X1 minus Y16
- 21 Mean of X5 and Z4
- 26 Five times a prime number
- 27 Three times a prime number
- 29 Four times a prime number
- 30 Nine times a prime number
- 31 Sixty more than X45
- 35 Fifty-seven times a prime number
- 36 Y44 plus Y43
- 37 Z28 reversed
- 41 Nine thousand two hundred eighty less than Y24
- 43 A square
- 45 Forty-six times a prime number
- 47 Six times a prime number
- 48 Nine times a prime number
- 51 Consecutive digits unordered

Y Direction

- 1 Five times a prime number
- 2 Thirty-four times a prime number
- 3 X51 plus Y34
- 4 Z14 minus X36
- 9 Thirty-eight times a prime number
- 16 Z40 minus Z12
- 21 One thousand seven hundred twenty-one more than X51
- 22 Y21 minus Z25
- 23 A prime number
- 24 Twenty times a prime number
- 25 Z18 minus Z13
- 31 Twice the result of X41 minus Z5
- 32 A prime number
- 33 Mean of Z9 and Y43
- 34 Four times a prime number
- 38 Five times Y39
- 39 Mean of Y43 and Y16
- 42 Fourteen thousand two hundred thirty-seven less than X30
- 43 Y42 divided by Z7
- 44 Half of X47, then subtract Z29
- 45 Seventeen times a square
- 46 Twenty-six times a prime number
- 49 Sum of digits in X31
- 50 Five times a prime number

Z Direction

- 1 Twenty-six times Y43
- 2 Y33 times Y49
- 3 Y9 divided by nineteen
- 4 Thirty-seven times a prime number
- 5 Eighty-four times X36
- 6 Thirty-eight times a prime number
- 7 Mean of X35 and Y32
- 8 Mean of Z10 and Y32
- 9 Y16 plus Y4
- 10 A prime number
- 11 Sixty-two times Y50
- 12 X37 minus Y49
- 13 Z40 plus Z1
- 14 A prime number
- 15 Mean of Z20 and Y1
- 16 Mean of Z40 and Y50
- 17 X17 minus Y33
- 18 Eight times a prime number
- 19 Mean of Z17 and Z12
- 20 Five times a prime number
- 25 Y34 plus Z12
- 28 A square
- 29 A prime number
- 30 A prime number
- 40 X36 plus X43

