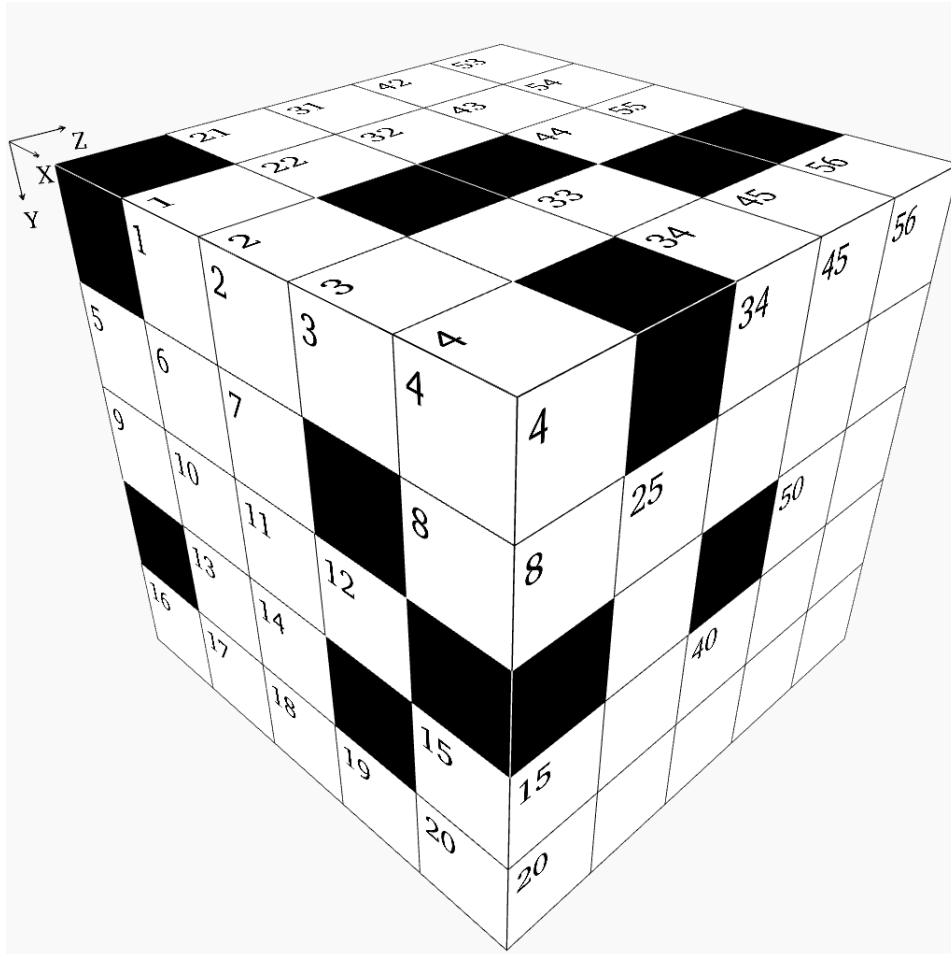


Cube - Hard Puzzle #3



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	21	22			31	32		33	34	
5	6	7	8	23		24	25	35		36	37		
9	10	11	12	26		27			38				
	13	14	15	28		29		39				40	
16	17	18	19	20	30					41			

42	43	44		45	53	54	55		56
46				47	57				
	48	49		50			58	59	
51					60	61			
52					62			63	

X Direction

- 1 A prime number
- 5 Twenty-six times Y4
- 9 Eighty-three times Y61
- 13 Z37 minus Z44
- 16 Twice a prime number
- 21 Y59 divided by Y15
- 23 Three times Y47
- 26 Z21 times Z50
- 28 Ten times Z28
- 30 Last two digits are the same as Y42
- 31 Mean of X63 and Z50
- 33 Z16 plus Y4
- 35 Two thousand one hundred forty-one less than Z14
- 38 Mean of Y5 and Y49
- 39 A prime number
- 41 Eight hundred seventy less than Z15
- 42 X53 minus Y51
- 46 A square
- 47 Y49 minus X53
- 48 One thousand three hundred seventy more than Y55
- 52 Mean of Y33 and Z28
- 53 One hundred forty-eight more than Z13
- 57 Z9 plus Z37
- 60 Twice a prime number
- 62 Ninety times a prime number
- 62 Same as Z29
- 63 Mean of X46 and Y61

Y Direction

- 1 Mean of Z11 and Y24
- 2 A prime number
- 4 Half of Z37, then subtract Y5
- 5 X31 plus Y61
- 15 X47 minus Y42
- 21 Three times a prime number
- 22 Thirteen thousand three hundred twenty-six more than Z17
- 24 Twenty-six times a prime number
- 25 Z3 times Z16
- 27 Mean of Y43 and X5
- 31 X13 minus Y54
- 32 Twelve thousand four hundred twenty more than Y33
- 33 Six thousand six hundred seventy-one more than Z11
- 34 Y42 minus Y15
- 36 Seventy-eight times a prime number
- 40 Mean of X63 and Y54
- 42 Z12 divided by X42
- 43 Z1 divided by X57
- 45 Twenty-eight times a prime number
- 47 X46 plus Y34
- 49 X58 minus Z16
- 51 Mean of Y5 and Y31
- 53 Y32 plus half of Z20
- 54 Y61 plus X46
- 55 Half of X28, then subtract Y45
- 56 Seven times a square
- 59 Mean of Z18 and Z29
- 61 Sum of digits in Y59

Z Direction

- 1 Twenty-six times a square
- 3 Twice a prime number
- 5 A prime number
- 6 Fifty times a prime number
- 7 Y43 plus Z13
- 8 Four thousand seven hundred seventy-three more than X30
- 9 A square
- 10 First two digits are the same as Y51
- 11 Twelve times a prime number
- 12 Y21 minus Z13
- 13 Z34 minus X46
- 14 Seventeen times a prime number
- 15 Twice the result of X35 minus Y56
- 16 X13 minus X63
- 17 Ninety-five times a prime number
- 18 Z14 minus X30
- 19 Mean of Y2 and X39
- 20 First two digits are the same as first two digits of Z10
- 21 X26 divided by Y15
- 28 A square
- 29 Z44 plus Y34
- 34 Twice the result of X23 plus X21
- 37 Mean of X57 and Y42
- 44 Y51 plus Y31
- 50 Y59 divided by X21
- 52 Y31 plus Z9

Solution:

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

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