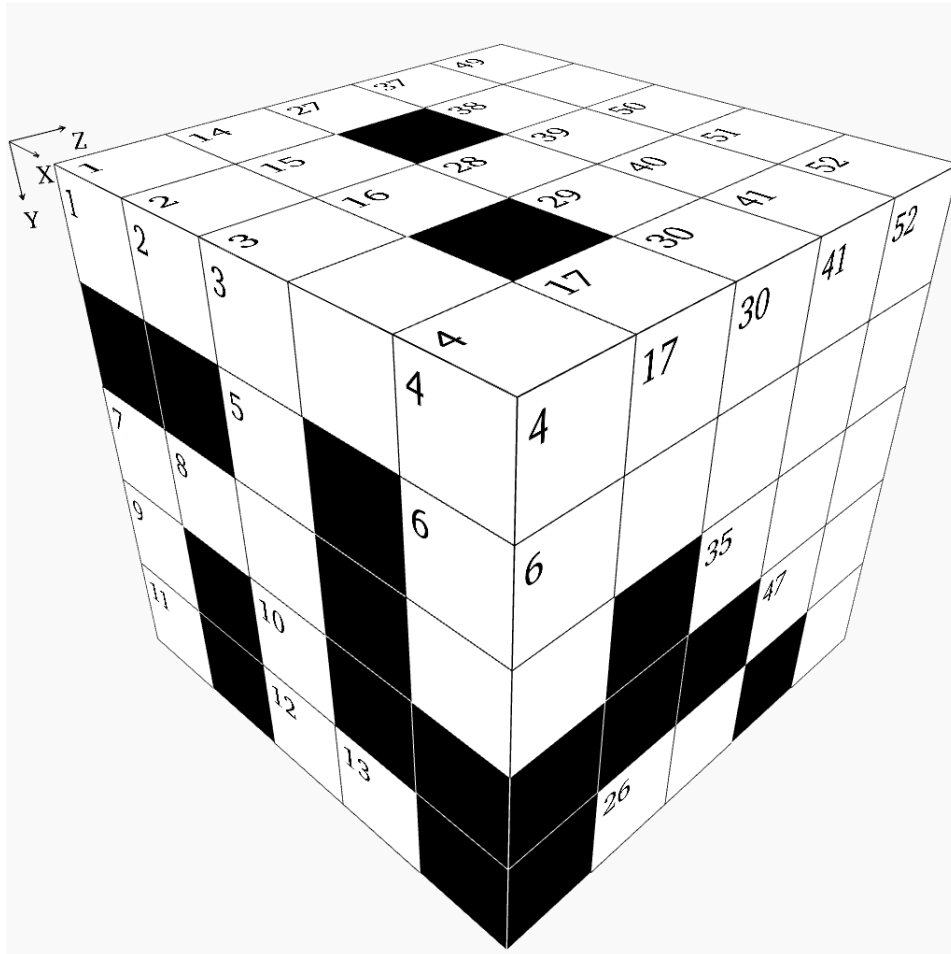


## Cube - Hard Puzzle #26



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

37	38	39	40	41	49		50	51	52
42							53		
43					54				
44		45	46	47			55	56	
48							57		

### X Direction

- 1 Twice the result of Z3 plus Z35
- 7 Y7 minus Y32
- 12 Z26 plus Y32
- 14 Eleven times Y22
- 18 Forty times a prime number
- 22 Five times a prime number
- 24 Last two digits are the same as last two digits of Y20
- 28 A cube
- 31 Ten thousand four hundred eighty more than Y3
- 33 X24 plus Y51
- 36 Ten times a prime number
- 37 Thirty-seven times a prime number
- 42 Mean of Y27 and Y4
- 43 Twice the result of X18 plus Z6
- 44 Forty-two times a prime number
- 48 A prime number
- 49 X31 minus half of Y49
- 53 A prime number
- 54 Z29 minus X12
- 55 A square
- 57 Seven times a prime number

### Y Direction

- 3 A prime number
- 4 Rearranged digits of Z33
- 7 Y30 plus Z45
- 14 Mean of X55 and Z47
- 15 Z5 minus Y20
- 16 Z10 minus Z47
- 17 Y14 minus Z47
- 20 Fifty-five times a prime number
- 22 X57 divided by seven
- 23 Mean of Z46 and Y32
- 27 Eleven thousand two hundred sixty-six more than X43
- 28 X7 minus Y22
- 29 Mean of X14 and Y16
- 30 Z35 plus Z38
- 32 Y51 divided by three
- 37 A prime number
- 38 Z25 times Z45
- 39 A prime number
- 40 A prime number
- 41 Twice a prime number
- 49 Consecutive digits unordered
- 50 Two hundred five less than X18
- 51 Mean of Z46 and Z10
- 52 Z8 minus half of Z46
- 56 Y51 minus Z26

### Z Direction

- 1 Fifteen thousand one hundred sixteen more than Y37
- 2 Y7 minus Y30
- 3 Same as Z4
- 4 X12 plus half of X36
- 5 Seven times a prime number
- 6 Seventy-nine times a prime number
- 8 Twice a prime number
- 9 X44 minus Y50
- 10 Y40 minus Z1
- 11 Ninety-six times a prime number
- 12 Y37 minus half of Y7
- 13 Last two digits are the same as Y51
- 18 Thirty-five times Y23
- 19 Z34 minus Z33
- 20 Four times a prime number
- 21 Mean of X12 and Z33
- 25 Y38 divided by Z2
- 26 X55 minus Z45
- 29 Z34 minus half of Y56
- 33 Y15 divided by twenty-nine
- 34 Seven times a prime number
- 35 Z25 minus X28
- 38 Half of Z10
- 45 Same as Z2
- 46 Mean of Z10 and Y17
- 47 Y56 plus Y16

**Solution:**

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

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