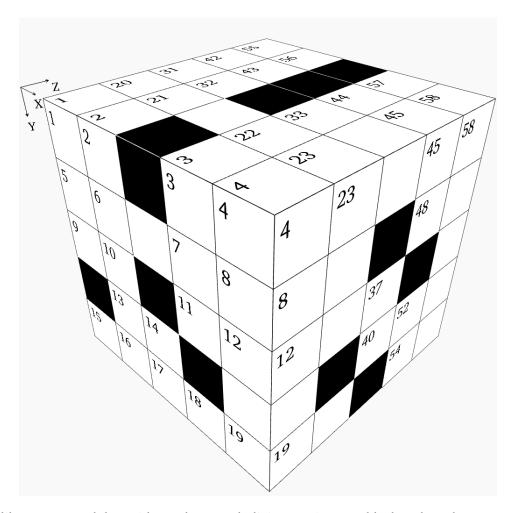


Cube - Hard Puzzle #5



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	3	4		20		21			22		23		31		32			33	
5	6		7	7	8		24					25						34		35		
9	10		1	11	12		26			27										36		37
	13	14					28					29				38				39		40
15	16	17	1	18	19		30									41						
			42	43	3			44	45		55		56				57		58			
			46			47			48		59						60					
			49	50)																	
								51	52		61			6	52		63					
						53			54		64											

X Direction

- 1 A square
- 3 Mean of Z50 and Y62
- 5 Mean of X61 and X24
- A square
- 11 Y32 plus Z54
- 13 Y52 plus Y45
- Y42 plus Y55
- X5 minus X9
- Z10 minus Y52
- Z12 divided by forty-five
- Seven hundred seventy-four less than
- A prime number
- A prime number
- X44 plus X57
- 33 Twice the result of X59 minus Y32
- 34 Y35 plus Y1
- Thirty-five times X42
- Three times a prime number
- Y45 minus Y63
- Y62 minus X60
- 44 A square
- Sixty-seven times Y35
- Thirteen times a prime number
- X42 plus Y38
- X51 plus Z27
- Y14 minus Y38
- X33 plus Z54
- Y62 minus X42
- 60 Mean of Y61 and X9
- 61 A prime number
- Fifty times a prime number

Y Direction

- Y27 plus Y45
- Eleven times a prime number
- 3 X34 plus half of X1
- Z1 minus X13
- 14 Y43 minus Y37
- 20 Mean of Y33 and Y44
- Nine thousand two hundred seventy-one less than X61
- Thirty-five times a prime number
- 23 Z15 divided by Y14
- 27 X3 plus Y23
- Z19 minus X44
- 33 A palindrome
- A prime number
- Z46 plus Z9
- Mean of Y37 and Y63
- X15 minus Z46
- Y52 plus X3
- Twelve times a prime number
- 45 Mean of Z54 and X3
- Z16 minus half of X11
- Z10 minus X51
- A square
- **56** Twice the result of X20 plus X57
- Twice the result of Y43 minus X13
- Ten times a prime number
- Z5 plus Z8
- X44 plus X11
- 63 A square

Z Direction

- Y4 plus Z13
- Three times a prime number
- Two thousand seven hundred twenty-seven less than X30
- Twice a prime number
- A square
- 6 Nine thousand one hundred twelve less than Y56
- 7 Mean of Y58 and X60
- 8 X11 minus Z35
- X13 minus Y38
- Z5 plus Y37
- Z17 times Z19
- X34 plus Y38
- Mean of Y61 and Z10
- Thirty-one times X25
- Y37 times Y23
- Z13 plus Z9
- Y32 plus Y45
- First two digits are the same as X13
- Z10 minus Y52
- 27 X53 minus Z53
- 28 Thirty-seven times a square
- Twice a square
- Z17 reversed
- Three times a prime number
- A square
- Y55 plus Z46
- X44 plus X1
- X44 plus Y32
- X60 minus Y38

Solution:

