## Cube - Intermediate Puzzle \#38



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 $\mathrm{X}, \mathrm{Y}$, 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:


## X Direction

1 X14 minus X6
4 Y15 plus X6
6 Same as Z9
9 A prime number
11 Four times a prime number
14 X1 plus Z9

Y Direction
2 Z12 plus Z2
3 X11 minus X4
8 Fifteen times a square
10 Six times Y15
13 A prime number
15 X1 divided by eighty-one

## Z Direction

2 Three times a prime number
4 Three times a prime number
5 Y8 plus half of Y10
7 Mean of Z9 and Z5
9 X4 minus Y15
12 All digits are the same

## Solution:



