## Cube - Intermediate Puzzle \#37



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 Y2 plus Z10
3 A square
7 A cube
9 Y2 reversed
11 A prime number
14 Forty-seven more than Z4

## Y Direction

1 A prime number
2 X9 reversed
5 Y7 divided by thirteen
7 Thirteen times a prime number
11 X11 minus Y1
12 A prime number
13 X3 minus X7


## Z Direction

2 Mean of Z4 and X9
4 A prime number
6 Twice the result of Y5 plus Z10
8 A prime number
10 Mean of Y5 and X9

## Solution:



