## Box - Intermediate Puzzle \#19



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 box pictured above and divide it into individual X - Y layers, we will get these planes:


## X Direction

1 X10 plus half of Y11
4 Consecutive digits in ascending order
6 Fifteen times Y5
7 Nine times Z9
10 A prime number
11 Mean of Z3 and X7
13 One hundred fifty-eight more than X15
15 A prime number

## Y Direction

1 Twenty-eight times a prime number
5 Four times Y11
8 Fifty-five times X10
9 Twice the result of Y1 minus X13
11 X6 divided by sixty
13 Consecutive digits unordered
14 Y 13 minus half of X4

## Z Direction

1 Z3 minus X1
2 Consecutive digits in descending order
3 X7 minus X4
4 Four times a prime number
5 Same as Z12
6 Thirty-two times Z9
9 X13 divided by fifty-one
12 Consecutive digits in ascending order

## Solution:



