## Box - Intermediate Puzzle \#35



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

3 Thirteen times a prime number
6 Y16 divided by forty
7 A prime number
10 Thirteen times a prime number
12 X 15 divided by Y8
13 Mean of X17 and Y4
15 Nineteen times a square
17 Twice the result of X7 minus Z5
18 Z8 minus Y13

## Y Direction

1 Z11 minus X6
2 A palindrome
4 Z 4 minus half of Z3
7 Mean of Y2 and Y13
8 X18 divided by six
9 Three times a prime number
12 Mean of Y4 and X17
13 Mean of Y4 and Z14
15 Twenty-seven times a prime number
16 Fifty-five times a square

## Z Direction

1 X7 minus Y4
2 Sixteen times a prime number
4 Fourteen times a prime number
5 Z8 minus Y9
8 Six times a prime number
11 Y13 plus Z1
14 X15 divided by X12

## Solution:



