## Box - Intermediate 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 $\mathrm{X}, \mathrm{Y}$, 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

2 Y10 divided by seventy-six
4 A prime number
7 Sixty times Z10
10 Twice a prime number
12 Mean of Y3 and Z5
13 Four times a prime number
15 Y15 plus Z10
16 Twice a prime number

## Y Direction

1 Z 8 minus half of Y14
2 Z3 minus Y11
3 Sixteen less than Z9
5 Z3 minus Z6
10 Rearranged digits of X16
11 Z8 minus Y14
13 Sixteen less than X13
14 Forty-two more than Z3
15 Z2 divided by fourteen

## Z Direction

2 Twice the result of Y2 minus X2
3 Four times a prime number
5 Ten times a prime number
6 X12 divided by five
7 Y13 minus Y1
8 Y11 plus Z9
9 Same as Y14
10 Mean of Y5 and Y2

## Solution:

| 1 |  | 1 | 1 |  | 8 | 8 | 6 |  | 7 | 2 | 4 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 7 | 0 | 9 |  | 3 |  | 2 | 1 | 0 | 0 |  |
| 5 | 2 | 2 | 0 | 4 | 6 | 0 |  | 3 | 8 | 6 |  |

