



# Box - Intermediate Puzzle #13

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 X,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:

	1	2	10		11	15	16	17
3		4				18		
5	6	7	12	13		19		
8	9		14			20		

#### **X** Direction

- **1** X10 minus Z2
- **5** Thirteen times a prime number
- 8 Y6 minus X14
- 10 Mean of X20 and Y2
- **12** Twice the result of Z1 plus X1
- 14 Z7 minus half of Y3
- **15** Twice a prime number
- **18** Twice the result of X10 plus Z10
- **19** Twice a prime number
- 20 Half of Z6, then subtract X19

### **Y** Direction

- 2 Z8 minus Y13
- **3** Eight times a prime number
- **6** Y2 minus half of Z2
- **11** Sixty times a prime number
- 12 Consecutive digits in descending order 6 X18 plus Z7
- **13** X12 divided by seventeen
- **15** Seventeen times a prime number
- **16** Twenty-six times a prime number
- **17** Forty-one times a prime number

#### **Z** Direction

- 1 Z7 plus Y12
- **2** Same as Z4
- 4 Two-fifths of Y11
- 5 Eleven times a prime number
- **7** Sixty-three less than X20
- 8 Three times Y6
- 9 Same as X19
- 10 Y11 minus X15

# Solution:

	3	2	2	٩	6	6	3	4
4		2			6	6	4	4
7	٩	3	8	5	0	1	0	6
2	1		7	0		3	6	٩