



# Cube - Intermediate Puzzle #8

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

1		2	8	9	10		13	14
3	4	5		11				
6	7		12			15		

#### **X** Direction

- **3** Eight times a prime number
- **6** Twenty-three times Z9
- 8 Mean of Y9 and Z4 11 Twice a prime number
- 12 Twice the result of Z5 minus Y2
- 13 Twice the result of Z2 minus X6
- **15** Twenty-two times a square

#### **Y** Direction

- **1** Its digits total Z1
- **2** Z5 minus Z9
- **4** Mean of Z4 and X11
- **9** First two digits are the same as X13
- **10** Twice a square
- **14** Six times a prime number

#### **Z** Direction

- **1** Y10 divided by six
- **2** Twice a prime number
- 4 X15 divided by four
- **5** Same as Y14
- 6 X15 plus half of Y14 **7** Mean of X15 and Z2
- **9** Y14 minus Y2

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## Solution:

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