



# Cube - Intermediate Puzzle #10

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

#### **X** Direction

- 3 Same as Y7
- First two digits are the same as Z6
- A prime number **11** Z3 divided by Z10
- X9 plus half of X3
- Thirty-two times Y8

#### **Y** Direction

- Y5 minus half of Y11
- Y12 minus Y11
- Half of Z2, then subtract X6
- 8 A cube
- Twice a prime number
- Four times a prime number
- Z2 divided by six

#### **Z** Direction

- Forty-four times X11
- All digits are the same
- Twice a prime number
- X14 divided by forty-eight
- Z10 plus X11
- Twice a prime number

## Solution:

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