

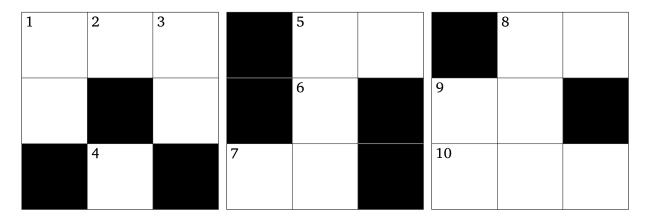
# Cube - Intermediate Puzzle #19

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:



#### **X** Direction

- **1** Half of X10, then subtract Z2
- **5** X8 reversed
- 7 Z2 divided by fourteen8 Twice a prime number
- **9** Six times a prime number
- **10** Four times a prime number

#### **Y** Direction

- **1** A square
- **3** X8 minus X9
- **5** X10 minus Z6**8** Rearranged digits of Y5
- 9 Mean of Z6 and X7

#### **Z** Direction

- 2 Z6 plus X8
- **3** Six times a square
- 4 Z2 minus X9
- 6 Z4 minus Y3
- **7** X9 minus Y1

## Solution:

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