

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 5 - FEBRUARY 2009
ROUND 2 ARITHMETIC / NUMBER THEORY**

ANSWERS

A) _____

B) _____

C) _____

***** NO CALCULATORS ON THIS ROUND *****

- A) Definition: A semi-prime is a positive integer which is the product of exactly two primes.
For example, 15, 25 and 145 are semi-primes.

How many semi-primes are there less than 50?

- B) Find the sum of the 10th row of the following triangular array.

			1			
		2		3		
	4		5		6	
7		8		9		10

- C) Find all possible ordered pairs of positive integers (A, B) , for which $A + B = 316$,
 A is a multiple of 13 and B is a multiple of 11.