

**MASSACHUSETTS MATHEMATICS LEAGUE  
CONTEST 1 - OCTOBER 2014  
ROUND 5 INEQUALITIES & ABSOLUTE VALUE**

**ANSWERS**

A) \_\_\_\_\_

B) \_\_\_\_\_

C) \_\_\_\_\_

A) Compute the 4 values of  $x$  for which  $|5 - |x + 1|| = 2$ .

B) Given:  $-2 < x < 2$

Determine all values of  $x$  which satisfy  $|2x - 2| + |4x - 4| = |5x + 11|$

C) Solve for  $x$ .

$$\frac{6}{x-3} + \frac{1}{x-5} \geq 3$$