

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 1 - OCTOBER 2011
ROUND 5 INEQUALITIES & ABSOLUTE VALUE**

ANSWERS

A) _____

B) _____

C) _____ sq. units

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

A) Specify all intervals over which the inequality $x^2 + 10x \leq 24$ is satisfied.

B) Solve: $|3x - 11| < 2x + 1$

C) Find the area of the region bounded by $\begin{cases} y + |x| < 8 \\ |x + 1| < 7 \\ y \geq 0 \end{cases}$.