

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 6 - MARCH 2009
ROUND 4 ALG 1: ANYTHING**

ANSWERS

A) _____

B) _____

C) _____

A) If $\frac{1}{4}$ of 20 were 6, then what would $\frac{1}{5}$ of 10 be, assuming the incorrect answers are proportional to the correct answers?

B) A 57 gallon acid-water solution contains 19 gallons of pure acid. Using this solution, a mixture of 20% acid was to have been produced by adding k gallons of water. However, k gallons of pure acid were added by mistake, producing a $p\%$ acid solution. Compute p .

C) Solve for x :
$$1 - \frac{1}{1 - \frac{3}{2 + \frac{1}{x}}} = 2x$$