

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 1 - OCTOBER 2010 ANSWERS**

Round 1 Geometry Volumes and Surfaces

A) 162 units^3

B) $6 : 5$

C) $5\sqrt{3}$

Round 2 Pythagorean Relations

A) $5\sqrt{10}, 2\sqrt{22}$

B) $5\sqrt{41}$

C) 43

Round 3 Linear Equations

A) 7 lbs

B) 2010

C) 180

Round 4 Fraction & Mixed numbers

A) $\frac{59}{60}$

B) (8, 6)

C) 88 mph

Round 5 Absolute value & Inequalities

A) -1006

B) $-\sqrt{5} < x < -1$ or $1 < x < \sqrt{5}$

C) 64

Round 6 Evaluations

A) 111

B) 588

C) 12

Team Round

A) 154π

D) (13, 4)

B) $\frac{7}{50}$

E) $-\frac{16}{9}$ (8 is extraneous)

C) (7, 30)

F) 167