

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 1 - OCTOBER 2008 ANSWERS**

Round 1 Geometry Volumes and Surfaces

A) $\frac{\sqrt{2}}{2}$ (or $\frac{1}{\sqrt{2}}$) B) 18 C) 46 [47 : 1]

Round 2 Pythagorean Relations

A) 38 B) 124 C) 7, 13

Round 3 Linear Equations

A) 6 B) 5 C) (4, 5)

Round 4 Fraction & Mixed numbers

A) incr. by factor of 20 B) 5:30 PM on SAT C) 8, 28

Round 5 Absolute value & Inequalities

A) 2.5 B) 91 C) $x \leq -7$ or $-\frac{1}{2} \leq x < 3$

Round 6 Evaluations

A) MAY B) 24 C) 2 [(0,0), (1,1)]

Team Round

A) 68 D) 3

B) $\frac{5}{2}, \frac{10}{3}$ E) 2024

C) 2112 F) $\frac{5}{9}$