MASSACHUSETTS MATHEMATICS LEAGUE
OCTOBER 2005 ANSWERS

Round 1 Geometry Volumes and Surfaces: A) 18.75 B) $\sqrt{129}$ C) 37,600 π

Round 2 Pythagorean Relations   A) 94.9 B) 192   C) 216

Round 3 Linear Equations   A) 14   B) 24 mph   C) – 6

Round 4 Fraction & Mixed numbers   A) 11,179 B) 15   C) 10:20 p.m.

Round 5 Absolute value & Inequalities   A) –2.5   B) 26

C) x> –2/13 , x ≠ 2

Round 6 Evaluations   A) 5/6   B) –4/3   C) 42,082 / 4,075

Team Round   A) $4 + \dfrac{4\sqrt{6}}{3}$ B) $4\sqrt{14}$ C) $\dfrac{12y}{-2y^2 + 27y - 4}$ or equivalent

D) 1:05 p.m. E) (– 4, 10/3) and (– 4, 2/3)   F) 11