

**MASSACHUSETTS MATHEMATICS LEAGUE  
CONTEST 1 - OCTOBER 2014 ANSWERS**

**Round 1 Geometry Volumes and Surfaces**

A)  $\frac{3}{2}$

B)  $2250\pi$

C)  $(5,3)$

**Round 2 Pythagorean Relations**

A) 108

B) 89

C) 420

**Round 3 Linear Equations**

A) 12

B) 2

C)  $(19, 5), (12, 8), (5, 11)$

**Round 4 Fraction & Mixed numbers**

A) 87

B) 6

C) 2

**Round 5 Absolute Value & Inequalities**

A)  $-8, -4, 2, 6$   
(in any order)

B)  $-\frac{5}{11}$

C)  $3 < x \leq \frac{13}{3}, 5 < x \leq 6$

**Round 6 Evaluations**

A)  $\frac{w-4}{4}$   
(or equivalent)

B)  $(-8, -12)$

C) 13

**Team Round**

A) 240

D)  $(-3, 7.5)$   
(or equivalent)

B)  $\frac{6}{5}$  (or 1.2)

E) 14

C) 40

F) 8