

**MASSACHUSETTS MATHEMATICS LEAGUE
NOVEMBER 2005 ANSWERS**

Round 1: A) $1/2$ B) $-32 - 24i$ C) $4i$ ~~$2\sqrt{3} + 4i$~~

Round 2 A) \$20,000 B) (14, SAT) C) 653

Round 3 A) $20 + 20\sqrt{2}$ B) 816 C) 56

Round 4 A) 77 B) $3(2x+1)(x^2 - 2)$
C) $(x^2 - 3x + 5)(x^2 + 3x + 5)$

Round 5 A) -3 B) 120, 180, 240, 360 C) $5\sqrt{6}$

Round 6 A) $126/5$ or 25.2 B) 240 C) $360/n$

Team Round A) 0 B) $\frac{5}{27}$ C) 54

D) 35 by 62 E) $15\sqrt{3} + 45$ F) 18°