MASSACHUSETTS MATHEMATICS LEAGUE
MARCH 2005 ANSWERS

Round 1:   A) 50   B) 102   C) $-6, 3.5$

Round 2   A) -1 B) $13 + 2\sqrt{3}$ C) $\dfrac{10}{81}$

Round 3   A) 2   B) $2x^4 - 6x^3 + 5x^2 + 3 = 0$

C) $4x^5 - 12x^4 + 9x^3 + 6x^2 - 14x = 0$ or an integral multiple thereof

Round 4   A) { } or ϕ B) 480   C) $\dfrac{a + 2c}{(a - c)c}$

Round 5   A) 1,4,2,3   B) $\dfrac{p^2}{20}$ C) 26.88

Round 6   A) 29 / 35   B) 13 / 14   C) 501 / 251

Team Round   A) (2.5, 9.5) (–3, 15)   B) -224   C) 89

D) 82 hrs 5 mins   E) 18   F) 01