

MASSACHUSETTS MATHEMATICS LEAGUE
JANUARY 2005
ROUND 4 ALGEBRA TWO: QUADRATIC EQUATIONS
ANSWERS

A) _____

B) (____,____,____)

C) _____

A) Find all real x for which $x^2\sqrt{6} - 4x - 2\sqrt{6} = 0$

B) For integers a , b , and c the solutions for $ax^2 = 2x + b$ are the same as those for $(x + 0.5)(cx - 3) = 0$. Find the ordered triple (a, b, c) .

C) If $N = 1 - \frac{1}{4 - \frac{1}{4 - \frac{1}{4 - \dots}}}$ then N may be expressed in the form $A + \sqrt{B}$. Find $A+B$.