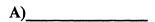
## MASSACHUSETTS MATHEMATICS LEAGUE JANUARY 2005

## ROUND 4 ALGEBRA TWO: QUADRATIC EQUATIONS ANSWERS



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.