MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 4 - JANUARY 2011
ROUND 2 ALG 1: FACTORING AND/OR EQUATIONS INVOLVING FACTORING

ANSWERS

A) $x =$ _____

B) $k =$ _____

C) $x =$ _____

***** NO CALCULATORS ON THIS ROUND *****

A) Find <u>all</u> possible values of x such that $x^2 + 2x + 1 = 10000$.

B) Determine the value of k for which $36x^2 - kx + 16 = A(Bx - C)^2$, where A, B and C are positive integers.

C) For some real constant A, $A^2 - 4x = x^2 + 4A$. Find all simplified expressions for x in terms of A.