

**MASSACHUSETTS MATHEMATICS LEAGUE
CONTEST 1 - OCTOBER 2007
ROUND 3 ALG 1: LINEAR EQUATIONS**

ANSWERS

A) _____

B) _____

C) _____

A) Find a simplified expression for the value of x in terms of a and b , given $a + b \neq 0$:
 $a(a - 2x) = b(b + 2x)$

B) For how many ordered pairs of positive integers does $x - \frac{11-y}{3} = 18$

C) What is the original cost of a dozen eggs, if buying an additional 4 eggs for 32¢ lowers the cost per dozen by 4¢?