

MASSACHUSETTS MATHEMATICS LEAGUE
JANUARY 2005
ROUND 2 ALGEBRA ONE: FACTORING & EQUATIONS
ANSWERS

A) _____ ft

B) _____

C) _____

- A) A rectangular playground of area 560 square feet is built on a vacant lot 32 feet wide by 40 feet long. The playground is placed an equal distance from all four sides of the lot. Find the perimeter of the playground.

- B) Find all real values of x for which: $2x = \frac{2 - x - x^2}{2 + x}$

- C) Find all real values of x (no approximations!) for which $x^3 + 1 = x^2 + 4x + 3$