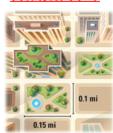# Algebra I
Notes Section 1.5
Use a Problem Solving Plan

Big Ideas

A Problem Solving Plan

STEP 1 **Read and Understand** Read the problem carefully. Identify what you know and what you want to find out.

STEP 2 **Make a Plan** Decide on an approach to solving the problem.

STEP 3 **Solve the Problem** Carry out your plan. Try a new approach if the first one isn't successful.

STEP 4 **Look Back** Once you obtain an answer, check that it is reasonable.

EXAMPLE 1 You run in a city. Short blocks are north-south and are 0.1 mile long. Long blocks are east-west and are 0.15 mile long. You will run 2 long blocks east, a number of short blocks south, 2 long blocks west, and aback to your start. You want to run 2 miles at a rate of 7 miles per hour. How many short blocks must you run?

0.1 mi

0.15 mi

STEP 1   Read and Understand

You know . . .   _____

_____

You want to find out . . .   _____

STEP 2   Make a Plan

_____

STEP 3   Solve the Problem   STEP 4   Look Back

Formula: _____

Temperature

$C = \frac{5}{9}(F - 32)$ where F = degrees Fahrenheit and C = degrees Celsius

Simple interest

$I = Prt$ where I = interest, P = principal, r = interest rate (as a decimal), and t = time

Distance traveled

$d = rt$ where d = distance traveled, r = rate (constant or average speed), and t = time

Profit

$P = I - E$ where P = profit, I = income, and E = expenses

EXAMPLE 2   You are making a leather book cover. You need a rectangular piece of leather as shown. Find the cost of the piece if leather costs $0.25 per square inch.

Short Stories   11 in.

18 in.