1.5 Use a Problem Solving Plan

Before	You used problem solving strategies.
Now	You will use a problem solving plan to solve problems.
Why?	So you can determine a route, as in Example 1.

Key Vocabulary
• formula

KEY CONCEPT
For Your Notebook

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 **Read a problem and make a plan**

RUNNING You run in a city where the short blocks on north-south streets are 0.1 mile long. The long blocks on east-west streets are 0.15 mile long. You will run 2 long blocks east, a number of short blocks south, 2 long blocks west, then back to your starting point. You want to run 2 miles. How many short blocks should you run?

0.1 mi

0.15 mi

Solution

ANOTHER WAY
For an alternative method for solving the problem in Example 1, turn to page 34 for the **Problem Solving Workshop**.

STEP 1 **Read and Understand**

What do you know?

You know the length of each size block, the number of long blocks you will run, and the total distance you want to run.

You can conclude that you must run an even number of short blocks because you run the same number of short blocks in each direction.

What do you want to find out?

You want to find out the number of short blocks you should run so that, along with the 4 long blocks, you run 2 miles.

STEP 2 **Make a Plan** Use what you know to write a verbal model that represents what you want to find out. Then write an equation and solve it, as in Example 2.