



# 1-1 Problem Solving Strategy: Make a Plan (Pages 6–10)

You can use a four-step plan to solve real-life, math-related problems.

<b>Explore</b>	Read the problem carefully. Ask yourself questions like “What facts do I know?” and “What do I need to find out?”
<b>Plan</b>	See how the facts relate to each other. Make a plan for solving the problem. Estimate the answer.
<b>Solve</b>	Use your plan to solve the problem. If your plan does not work, revise it or make a new one.
<b>Examine</b>	Reread the problem. Ask, “Is my answer close to my estimate? Does my answer make sense for the problem?” If not, solve the problem another way.

## EXAMPLE

Luther bought 8 CDs at a sale. The first CD purchased costs \$13, and each additional CD costs \$6. What was the total cost before tax?

<b>Explore</b>	You are given the cost of the first CD and the cost of additional CDs. You need to find the total cost.
<b>Plan</b>	First find the number of additional CDs after the first CD he purchased. Multiply that number by \$6 and add \$13 for the first CD. Estimate the total cost by using $15 + 7 \times 5 = 50$ .
<b>Solve</b>	$8 - 1 = 7$ , $7 \times \$6 = \$42$ , $\$42 + \$13 = \$55$
<b>Examine</b>	The total cost of \$55 is close to the estimate of \$50, so the answer is reasonable.

## PRACTICE

1. The table at the right shows estimates of the number of species of plants and animals on Earth. Find the total number of species on Earth.

- Write the explore step.
- Write the plan step.
- Solve the problem.
- Examine your solution. Is it reasonable?

Group	Number
Mammals, Reptiles, Amphibians	13,644
Birds	9,000
Fish	22,000
Plants	443,644
Invertebrates	4,400,000

2. Jeff is 10 years old. His younger brother, Ben, is 4 years old. How old will Jeff be when he is twice as old as Ben?



3. **Standardized Test Practice** At Camp Mystic, there are 576 campers. If 320 campers are boys, then how many campers are girls?

- A** 432 girls      **B** 320 girls      **C** 256 girls      **D** 144 girls

Answers: 1. See Answer Key. 2. 12 years old. 3. C