

2.5 Problem Solving

Strategy

1. Read and re-read the problem.
2. Determine what is given and what is needed/unknown.
3. Use a variable to represent the unknown quantity.
4. Write an equation using the variable to model the scenario.
5. Solve for the unknown.

Example 2.5.1

Four subtracted from six times a number is sixty-eight. What is the number?

Example 2.5.2

Page numbers on facing pages of a book are *consecutive integers*. Two pages that face each other have a sum of 145. What are the page numbers?

Example 2.5.3

A taxi charges \$2.00 to start the meter and \$0.25 for each mile driven. How far can you travel if you have \$10.00?

Example 2.5.4

A rectangular pool is three times as long as it is wide. If the perimeter is 320 feet, what are the dimensions of the pool?

Example 2.5.5

After a 40% price reduction, an exercise machine sold for \$564. What was the original price?