Section 2.5 An Introduction to Problem Solving

# Objective 1: Solving Direct Translation Problems

# In order to use an algebraic equation to solve a problem, we need to translate the situation presented into an equation.

Write an algebraic equation for the sentence. Then find the number.

a. Two less than three times a number is equal to two times the number plus four.

b. Three fourths of the sum of a number and five is equal to fifteen.

# Objective 2: Solving Problems Involving Relationships Among Unknown Quantities

# We will now examine a variety of problems that can be solved by writing and solving algebraic equations. When using an equation to solve a problem, it is important to interpret the solution within the context of the situation.

a. The measure of the third angle in an isosceles triangle is more than the measure of either of the two equal angles. Find the measures of the angles of the triangle.

b. There were freshmen and sophomores at a student assembly. If there were more freshmen at the assembly than sophomores, how many freshmen were at the assembly?

c. The sum of three consecutive even integers is . Find the three integers.