

## Word Problems involving Linear Equations

### Steps

- 1) READ THE PROBLEM
- 2) Draw a picture if it helps
- 3) Make a variable and write down what it stands for
- 4) Write an equation involving the variable
- 5) Solve the equation
- 6) Interpret and check the result. Make sure you answered the question that was asked.

### Consecutive Integer Problems

#### Example 1

The ages of a brother and sister are consecutive integers. If the sum of their ages is 47, how old is each?

### Geometry Problems

#### Example 2

A 12 foot board needs to be cut in to two pieces with the longer piece three times longer than the short piece. How long will each piece be?

## **Fixed and Variable Costs**

### **Example 3**

A plumber charges \$50 to come to your house plus \$30 an hour labor while she works. If the total bill comes to \$125, how many hours did the plumber work?

## **Abstract Problems**

Sum

Difference

Product

Quotient

### **Example 4**

The sum of twice a number and 5 is 3 less than the number. Find the number.