

NAME \_\_\_\_\_

**Module 13** Solving Quadratic Equations  
of One Variable

**Lesson 6** Solving Problems Using Quadratic  
Equations of One Variable

**guided  
notes**

### Lesson Objectives

- To solve problems using quadratic equations of one variable.

The formula for the area of a rectangle is  $A = lw$ .

- 1 The area of a floor is 96 square feet. The width of the floor is 12 feet less than three times the length. What are the dimensions of the floor?

**length = 8 feet; width = 12 feet**

- 2 The height, in feet, of a ball thrown upwards from a point 100 feet above the ground is given by the equation  $h = -16t^2 + 5t + 100$ , where  $t$  is the time in seconds. How many seconds will have elapsed when the ball is 50 feet above the ground?

**approximately 1.93 seconds**

