

# RATIONAL EQUATIONS AND FUNCTIONS

▶ *How do scale models fit into the design process?*



## CHAPTER

# 11

### APPLICATION: Scale Models

*An architectural scale model is a smaller, three-dimensional representation of a structure. Models can be built for a single building or an entire city. Architects, builders, and city planners use them.*

The dimensions of a scale model can be determined by solving a proportion. In Chapter 11 you'll learn ways to solve proportions and other rational equations.

#### Think & Discuss

Use the drawing of a scale model for Exercises 1–2.



1. Solve the equation  $\frac{7}{1} = \frac{x}{48}$  to find the height  $x$  of the actual house. Write your answer in feet.
2. A shutter on the house is 1 foot wide. How wide is it on the model? Write your answer in inches.

#### Learn More About It

You will write and use a proportion for a problem about a scale model in Exercise 43 on page 647.



**APPLICATION LINK** Visit [www.mcdougallittell.com](http://www.mcdougallittell.com) for more information about scale models.

