

# Lesson 3 Homework Practice

## *Solve Proportional Relationships*

- 1) Write cross-products as an equation with the given variable.
- 2) Show work to solve equation.
- 3) State solution.
- 4) Check solution.

$$1. \frac{b}{5} = \frac{8}{16}$$

$$2. \frac{18}{x} = \frac{6}{10}$$

$$3. \frac{t}{6} = \frac{30}{36}$$

$$4. \frac{11}{10} = \frac{n}{14}$$

$$5. \frac{2.5}{35} = \frac{2}{d}$$

$$6. \frac{3.5}{18} = \frac{z}{36}$$

**For Exercises 7-9, assume all situations are proportional. Show all work similar to ?s 1-6.**

7. **CLASSES** For every girl taking classes at the martial arts school, there are 3 boys who are taking classes at the school. If there are 236 students taking classes, write and solve a proportion to predict the number of boys taking classes at the school.

- 8. BICYCLES** An assembly line worker at Rob's Bicycle factory adds a seat to a bicycle at a rate of 2 seats in 11 minutes. Write a proportion relating the number of seats  $s$  to the number of minutes  $m$ . At this rate, how long will it take to add 16 seats? 19 seats?
- 9. PAINTING** Lisa is painting a fence that is 26 feet long and 7 feet tall. A gallon of paint will cover 350 square feet. Write and solve a proportion to determine how many gallons of paint Lisa will need.
- 10. USAGE** A 12-ounce bottle of shampoo lasts Enrique 16 weeks. How long would you expect an 18-ounce bottle of the same brand to last him?