2-6

Ratios, Rates, and Conversions

Convert the given amount to the given unit.

1. 12 in.; cm   **2.** 528 cm; yd   **3.** 9 hr; min

4. 12 meters; cm   **5.** 8 liters; qt   **6.** 7 days; hours

7. 10 pounds; grams   **8.** 45 ft; yd   **9.** 10 meters; ft

10. A plumber needs to replace 20 feet of copper piping. When he gets to the supply store, the lengths are given in meters. How many meters of piping does he need to purchase?

11. An athletic director is laying out a rectangular soccer field to be 60 m wide and 95 m long. What are the dimensions of the field to the nearest whole yard?

Complete each statement.

12. 9 gal/s =_____qt/min   **13.** 5.5 days =_____ min

14. 50 yd =_____ m   **15.** 10 mi/hr =_____m/min

16. 25 mi/gal =_____ km/L   **17.** 5 m/s =_____ft/s

18. Which weighs more, 5 ounces or 150 grams?

19. Which is longer, 5 miles or 10 kilometers?

20. Which is the better buy, 3 pounds for $8.31 or 5 pounds for $12.95? Explain.

21. A cyclist is riding 18 miles per hour.
    a. What conversion factors should be used to convert 18 mi/hr to ft/sec?

    b. How many feet per second is the cyclist riding?

Determine if each rate is a unit rate. Explain.

22. 3 liters per 60 seconds   **23.** 55 miles per hour   **24.** $15 per hour

Find each unit rate.

25. 5 pounds of apples cost $9.95.

26. The tub filled with 12 gallons of water in 5 minutes.

27. Rocky earned $102 in 8 hours.

28. Writing Suppose you want to convert miles per hour to feet per second. What conversion factors would you choose to use? How did you determine which units should go in the numerators and the denominators of the conversion factors?