

RATIOS, RATES, & PROPORTION PRACTICE

Name Key

1) Complete the following table

| | | | | |
|---|----|----|----|----|
| 5 | 15 | 30 | 50 | 20 |
| 4 | 12 | 24 | 40 | 16 |

2) A survey was done in the class and it showed that 8 people liked Pepsi compared to 12 people who liked Coke. Use this information to complete the rate table below.

| | | | | |
|-------|---|---|----|----|
| Pepsi | 2 | 4 | 8 | 12 |
| Coke | 3 | 6 | 12 | 18 |

3) A truck driver drives 840 miles in 14 hours. Write the average speed as a unit rate in fraction form.

$$\frac{840 \text{ miles}}{14 \text{ hours}} = \frac{60 \text{ miles}}{1 \text{ hour}}$$

4) 186 people liked figure skating out of the 300 people when asked what their favorite Winter Olympic Sport was. Write this ratio in simplest form three ways.

$$\frac{31}{50} = \frac{186 \text{ people (part)}}{300 \text{ people (total)}} = \frac{93}{150}$$

5) Write 29 pounds per 5 gallons as a unit rate.

$$\frac{29 \text{ lb}}{5 \text{ gall}} = \frac{5.8 \text{ lb. original}}{1 \text{ gall}}$$

6) Last year Yeh grew 4 inches in 8 months. How much did she grow per month?

$$\frac{4 \text{ in}}{8 \text{ mon}} = \frac{.5 \text{ in}}{1 \text{ month}}$$

7) The Blue Birds, a middle school basketball team, has won 22 games and lost 5 games.

a. Write a ratio of games won to games lost.

$$\frac{22 \text{ won}}{5 \text{ lost}}$$

b. Write a ratio of games won to total game played.

$$22 + 5 = 27 \quad \frac{22 \text{ won}}{27 \text{ total}}$$

Ratios and Rates

Find the unit rates and write them in fraction form.

1. Sam bikes 100 miles in 8 hours.

$$\frac{100 \text{ miles}}{8 \text{ hours}} = \frac{12.5 \text{ miles}}{1 \text{ hour}}$$

2. Kendra spends \$21 for 3 CDs.

$$\frac{\$21}{3 \text{ CD}} = \frac{\$7}{1 \text{ CD}}$$

3. A recipe calls for 45 fl oz of punch mix per 3 qt of water.

$$\frac{45 \text{ fl oz}}{3 \text{ qt water}} = \frac{15 \text{ fl oz}}{1 \text{ qt}}$$

Help the following careful shoppers choose the best value:

4. Drew wants some new shampoo. He notices that Head and Shoulders costs \$3.24 for a 24-ounce bottle, and Tegrin costs \$2.89 for a 19-ounce bottle. If Drew wants to spend as little as possible to get a good shampoo, which brand should he buy?

$$\frac{\$3.24}{24 \text{-ounce}} = \frac{\$1.35}{1 \text{ ounce}} \quad \frac{\$2.89}{19 \text{-oz}} = \frac{\$1.52}{1 \text{ oz}}$$

5. Marcus is buying flour to bake bread. He can buy flour in a 5-pound sack, a 10-pound sack, or a 20-pound sack. The 5-pound sack is \$.70, the 10-pound sack is \$1.29, and the 20-pound sack is \$2.75. Which sack represents the best deal?

$$\frac{\$.70}{5 \text{ lb}} = \frac{\$.14}{1 \text{ lb}} \quad \frac{\$1.29}{10 \text{ lb}} = \frac{\$.129}{1 \text{ lb}} \quad \frac{\$2.75}{20 \text{ lb}} = \frac{\$.1375}{1 \text{ lb}}$$

10 pound sack