

ARRANGED HOUR FOR MATH 50

Math 50 – Section 8.6
Rates, Ratios, and Proportions

Name _____
Instructor _____
Date _____

1. Write each of the following ratios as a fraction in lowest terms. None of the answers should contain decimals.

a. 12 to 64 _____

b. 36 to 18 _____

c. $\frac{9}{5}$ to $\frac{11}{5}$ _____

d. 0.21 to 0.03 _____

2. Solve each of the following word problems.

a. A train travels 360 miles in 5 hours. What is the rate of the train in miles per hour?

b. A 225-gallon drum is filled in 3 minutes. What is the rate in gallons per minute?

c. On a 384-mile trip, an economy car uses 8 gallons of gas. Give this as a rate in miles per gallon.

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3. Find the missing term in each of the following proportions, circle your final answer.

a. $\frac{3}{8} = \frac{9}{x}$

b. $\frac{3}{7} = \frac{x}{3}$

c. $\frac{1}{x} = \frac{1}{12}$

d. $\frac{0.5}{x} = \frac{1.4}{0.7}$

4. Solve each of the following word problems by translating the statement into a proportion.

- a. A basketball player scores 162 points in 9 games. At this rate how many points will he score in 20 games?
- b. An airplane flies 1,260 miles in 3 hours. How far will it fly in 5 hours?
- c. If 10 ounces of a certain breakfast cereal contains 3 ounces of sugar, how many ounces of sugar does 25 ounces of the same cereal contain?
- d. A travelling salesman figures it costs 21¢ for every mile he drives his car. How much does it cost him a week to drive his car if he travels 570 miles a week?