

STUDY GUIDE: FINDING UNIT RATE AND CONVERTING UNIT RATES

NAME: _____ PERIOD: _____ DATE: _____

FIND THE UNIT RATE ROUND EACH ANSWER TO THE NEAREST TENTH.

1. Type 800 words in 12 minutes

$$66.67 \text{ words/min}$$

2. 357 miles in 5 hours

$$71.4 \text{ miles/hr}$$

3. A 10-lb bag of cherries for \$33.49

$$\$3.35 / 1 \text{ pound}$$

4. Earn \$134 in 8 hours

$$\$16.75 / \text{hour}$$

5. 3500 calories for 6 servings of pie

$$583.3 \text{ cals/1 serving}$$

6. \$37.29 for 2 pairs of jeans.

$$\$18.65 / 1 \text{ pair}$$

7. 24 senior citizens in 12 RVs

$$2 \text{ citizens/RV}$$

WHICH IS THE BETTER BUY?

8. A 12.5-oz. bag of Doritos for \$3.79 or a 3-oz. bag for \$1.00.

$$\$0.30$$

$$\$0.33$$

12.5 oz bag is the better deal

9. 12 bars of soap for \$10.00 or 5 bars of soap for \$4.00.

$$\$0.83$$

$$\$0.80$$

5 bars/\$4 is the better deal

10. A box of 84 penguins for \$13,597 or a bag of 50 penguins for \$795.95.

$$\$161.87$$

$$\$15.92$$

Bag of 50 penguins is the better deal

FOR EACH PROBLEM BELOW, FIND THE UNIT RATE, THEN USE THE UNIT RATE TO ANSWER THE QUESTION.

11. Jesus bought 3 pairs of jeans for \$71.40. How much would he need to pay for 8 pairs of jeans?

$$\frac{\$71.40}{3 \text{ pairs}} = \frac{\$23.80}{1 \text{ pair}} \times 8 = \frac{\$190.40}{8 \text{ pairs}}$$

12. Morgan scored 41 points in 3 games. How many points would you expect him to make in an 11-game season.

$$\frac{41 \text{ points}}{3 \text{ game}} = \frac{13.67 \text{ pts}}{1 \text{ game}} \times 11 = \frac{150.3 \text{ pts}}{11 \text{ games}}$$

USING THE UNIT RATES GIVEN, CONVERT THEM INTO THE DESIRED UNITS OF MEASUREMENT.

13. 55 miles per hour = _____ miles per minute

$$\frac{55 \text{ mi}}{1 \text{ hr}} \times \frac{1 \text{ hr}}{60 \text{ min}} = \frac{55 \text{ mi}}{60 \text{ min}} = 0.92 \text{ mi/min}$$

14. 6 feet per minute = _____ feet per second

$$\frac{6 \text{ feet}}{1 \text{ min}} \times \frac{1 \text{ min}}{60 \text{ sec}} = \frac{6 \text{ ft}}{60 \text{ sec}} = \frac{0.1 \text{ ft}}{1 \text{ sec}}$$

15. 45 miles/hour = _____ feet/second

$$\frac{45 \text{ mi}}{1 \text{ hr}} \times \frac{5,280 \text{ ft}}{1 \text{ mi}} \times \frac{1 \text{ hr}}{3,600 \text{ sec}} = \frac{237,600 \text{ ft}}{3,600 \text{ sec}} = 66 \text{ ft/sec}$$

16. 8 gallons/hour = _____ pints/minute

$$\frac{8 \text{ gal}}{1 \text{ hour}} \times \frac{4 \text{ pts}}{1 \text{ qt}} \times \frac{2 \text{ qts}}{1 \text{ gal}} \times \frac{1 \text{ hr}}{60 \text{ min}} = \frac{64 \text{ pints}}{60 \text{ min}} = \frac{1.07 \text{ pts}}{1 \text{ min}}$$