

Name \_\_\_\_\_

**5-4B Lesson Master****Questions on SPUR Objectives**

See pages 320–323 for objectives.

**USES** Objective F

1. A cheetah can reach speeds of 70 miles per hour. How fast can it run in kilometers per hour? Use the conversion  $1 \text{ mile} \approx 1.61 \text{ kilometers}$ .  
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2. A hospital scale measures an infant that weighs 3.6 kilograms at birth. How many pounds does this infant weigh? Use the conversion  $1 \text{ pound} \approx 0.45 \text{ kilograms}$ .  
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3. Gary introduced a new fish to his aquarium that is 8 centimeters long. In a few months, the fish will have grown an additional 3 inches. How many centimeters long is the fish after a few months? Use the conversion  $1 \text{ inch} \approx 2.54 \text{ centimeters}$ .  
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4. The Professional Bowler's Association allows each player to use a bowling ball that has a weight of up to 7.3 kilograms. If a player has a 15-pound bowling ball, can he use it to play in the PBA? Use the conversion  $1 \text{ kilogram} \approx 2.2 \text{ pounds}$ .  
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5. A ceiling fan uses three 60-watt light bulbs. The fan is on for 6 hours during the day and uses 1,080 watts of electricity. How many kilowatts do the light bulbs draw?  
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6. Fran went to Europe over the summer and returned to the United States with 130 Euros. At the time, one Euro was equivalent to \$1.26 United States dollars. How many United States dollars did Fran bring home from her trip?  
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7. Nicholas needs 2 cups of milk to make rice pudding. There is  $\frac{1}{4}$  of a gallon of milk left. Does he have enough milk to make the pudding? Explain. Use the conversion  $1 \text{ gallon} = 16 \text{ cups}$ .  
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8. A luxury sedan can travel 35 miles on each gallon of gas. How many kilometers can this same car travel on each liter of gas? Use the conversion  $1 \text{ mile} \approx 1.61 \text{ kilometers}$  and  $1 \text{ gallon} \approx 3.79 \text{ liters}$ .  
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9. Jessica can walk 3,219 meters in 30 minutes. What is her speed in kilometers per hour?  
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10. During a storm, 2 inches of rain fell in 15 minutes. At this rate, how many feet of rain would fall in 1 hour?  
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11. Carter purchased 8 yards of rope for 2 swings. The rope costs \$0.40 per foot. What is the cost of the rope per swing?  
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12. Suppose a person drinks 400 bottles of natural spring water per year. Each bottle contains 0.5 liter of water. How many gallons of water is this per year? Use the conversion  $1 \text{ liter} \approx 0.26 \text{ gallon}$ . \_\_\_\_\_
13. If a space vehicle reached the moon in 13.7 hours after traveling a distance of 385,000 kilometers, what was its speed in meters per second? \_\_\_\_\_
14. Over the course of 3 years, 6 missions of the *Apollo* program brought back 382 kilograms of various moon rocks. What was the average weight in pounds of moon rock that the missions brought back per year? Use the conversion  $1 \text{ pound} \approx 453.59 \text{ grams}$ . \_\_\_\_\_
15. Each week, the Smythe family produces about 48 pounds of garbage for disposal. How many tons of garbage is this in a year (52 weeks)? Use the conversion  $1 \text{ ton} = 2,000 \text{ pounds}$ . \_\_\_\_\_
16. Hannah can type 90 words a minute. What is her average rate per second? \_\_\_\_\_
17. Gary's truck gets about 24 miles to the gallon. If gas costs \$2.399 per gallon, what is the cost of gas per mile? \_\_\_\_\_

**In 18 and 19, tell what the reciprocal rate represents.**

18. eggs for 60¢ a dozen
- \_\_\_\_\_

19. bicycling at a rate of 10 miles per hour
- \_\_\_\_\_