Name _____

LESSON MASTER 2-4 B

Questions on SPUR Objectives

Uses Objective H: Apply the Rate Factor Model for Multiplication in real situations.

1. Mr. Kremers drove at an average speed of 50 miles per hour. How far did he travel in $6\frac{1}{2}$ hours?

2. Ms. Grabinski drove 450 miles on 15.4 gallons of gas. Compute the mpg (miles per gallon) for her car.

3. If a box of cereal contains 24 servings, how many boxes are needed to serve breakfast to 130 campers?

4. A box of tile contains 40 pieces. Five boxes will cover 25 square feet. What area can be covered by 400 tiles?

5. Over a quarter-mile distance, an elephant can run at a speed of 25 miles per hour. How many miles per *minute* is this?

6. A 120-gram serving of pudding contains 170 calories in food energy.

   a. What is the number of calories per gram?

   b. A person burns about 5 calories per minute of walking. How long will it take to burn off the calories from a serving of this pudding?

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7. A cookbook says to cook a beef roast 35 minutes per pound. How many *hours* will it take to cook a $6\frac{1}{2}$-pound roast?

_____

8. It takes about 1.4 columns to print 100 entries in the North-Metro phone book.

   a. If there are four columns per page, how many entries are on a page?

   _____

   b. About how many entries are there in the 340-page North-Metro phone book?

   _____

   c. About how many pages would it take to list a quarter million entries?

   _____

Review Objective C, Lessons 1-4 and 1-6

In 9–24, evaluate each expression when $x = 4$, $y = 5.1$, and $z = 2.8$.

9. $8x$ _____

10. $x + y$ _____

11. $\frac{21x}{7}$ _____

12. $xy - z$ _____

13. $y^2 - 2x$ _____

14. $6.1x + 2.9z$ _____

15. $(x + y)^2$ _____

16. $\sqrt{x}$ _____

17. $x^2 + y^2 + z^2$ _____

18. $\frac{7y + 2z}{14}$ _____

19. $10(3y - 4z)$ _____

20. $-\sqrt{16x}$ _____

21. $-x^2 - y^2$ _____

22. $xyz - zxy$ _____

23. $\frac{y + z}{y - z}$ _____

24. $\frac{3x^2}{4} \cdot \frac{4}{3x}$ _____