Mr. Powder
Assessment Review Ditto 9

Pre-Algebra
Name: _____

Write the rate as a fraction.

1. 17 meters per second
2. $360 per ounce
3. 1.5 inches per hour
4. 0.75 pound per square foot
5. **Cows** A milk cow grazing in a field eats about 30 pounds of grass per day. How many pounds does the cow eat in 5 days?
6. **Snails** A snail travels at a speed of about 23 inches per hour. How far can a snail travel in 4 hours?
7. **Carpeting** You want to carpet a rectangular bedroom that is 5 yards long and 4 yards wide. You buy the carpet for $11.50 per square yard. What is the total cost of the carpet?
8. **Space Probe** In 1989, the space probe *Magellan* was launched. It traveled toward the planet Venus at a speed of about 25,000 miles per hour. How far did *Magellan* travel in one day?
9. **Nutrition** A certain brand of salsa contains 15 Calories per ounce. Write an expression for the number of calories in x ounces.
10. **Skiing** You ski down a hill at a speed of 70 feet per second. Write an expression for the distance you travel in t seconds.

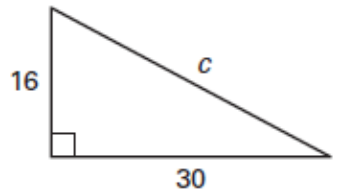
11. One box of cereal is 16 ounces and costs $3. A smaller box of the same type of cereal is 11.5 ounces and costs $2. Which box of cereal is the better buy? Explain.

Find the unit rate.

12. $\frac{72 \text{ people}}{3 \text{ buses}}$
13. $\frac{20 \text{ ounces}}{2.5 \text{ servings}}$
14. $\frac{288 \text{ mi}}{12 \text{ gal}}$
15. $\frac{10.4 \text{ gal}}{4 \text{ min}}$
16. $\frac{1125 \text{ calories}}{4.5 \text{ hours}}$
17. $\frac{\$375}{15 \text{ shares}}$

Find the unknown length. Write your answer in simplest form.

1.



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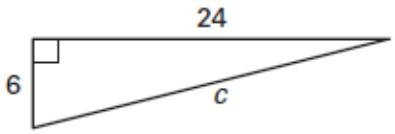

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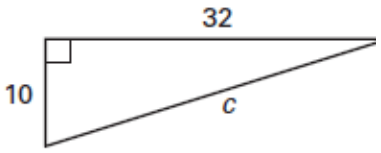

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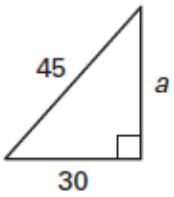

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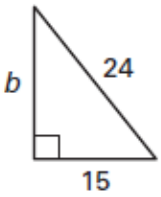

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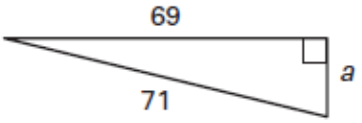


Determine whether the triangle with the given side lengths is a right triangle.

7. 20, 21, 29 **8.** 5, 15, 16 **9.** 9, 40, 41

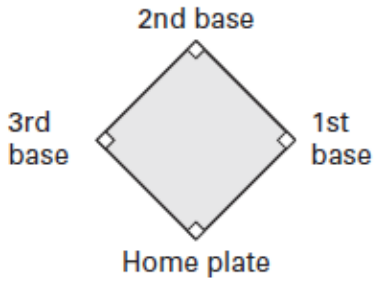
10. 7, 13, 15 **11.** 12, 73, 74 **12.** 14, 23, 27

The lengths of two sides of a right triangle are given. Find the length of the third side.

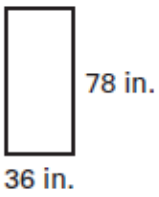
13. $a = 14, c = 50$ **14.** $a = 16, c = 34$ **15.** $b = 35, c = 37$

16. $b = 48, c = 52$ **17.** $a = 32, b = 60$ **18.** $a = 28, b = 96$

19. A baseball diamond is a square with side lengths of 90 feet. What is the distance from first base to third base? Round to the nearest tenth of a foot.



20. You are moving into a new house. The doorway is 78 inches high and 36 inches wide. Can a round table top with a diameter of 84 inches fit through the doorway?



21. The hypotenuse of an isosceles right triangle has a length of 9 meters. Find the leg lengths to the nearest hundredth of a meter.