Unit 5: Proportional Relationships

PRACTICE · SET 2

Name: _____ Date: _____

Solve each problem and write your answer in the form requested (a number, a fraction, "in terms of pi" where asked, or yes/no). Use pi ≈ 3.14 only where a problem tells you to.

1. In a proportional relationship, y = kx. If y = 56 when x = 8, find the constant of proportionality k.

Answer: _____

2. A recipe uses 3 cups of flour for every 2 cups of sugar. At the same rate, how many cups of flour are needed for 10 cups of sugar?

Answer: _____

3. 4 notebooks cost $9.00. At the same unit rate, what is the cost in dollars of 7 notebooks?

Answer: _____

4. A car travels 220 miles in 4 hours at a constant speed. What is the unit rate in miles per hour?

Answer: _____

5. Find the circumference of a circle with radius 9 cm. Give the exact answer in terms of pi.

Answer: _____

6. Find the circumference of a circle with diameter 16 in. Give the exact answer in terms of pi.

Answer: _____

7. Find the area of a circle with radius 5 m. Give the exact answer in terms of pi.

Answer: _____

8. Find the area of a circle with diameter 20 ft. Give the exact answer in terms of pi.

Answer: _____

9. In a proportional relationship y = kx, the constant of proportionality is k = 2/5. Find y when x = 30.

Answer: _____

10. A store sells rice at a constant rate: 2 kg costs $5, and 6 kg costs $15. Is the cost proportional to the weight? Answer yes or no.

Answer: _____

11. Using pi ≈ 3.14, find the circumference of a circle with radius 10.

Answer: _____

12. Using pi ≈ 3.14, find the area of a circle with radius 4.

Answer: _____