Unit 2: Introducing Proportional Relationships

PRACTICE · SET 2

Name: _____ Date: _____

Show all work. Give each answer as a number, fraction, coordinate pair, ratio, or short value.

1. A recipe uses 3 cups of flour for every 2 cups of sugar. This is a proportional relationship. What is the constant of proportionality k that gives cups of flour per cup of sugar? Answer as a fraction or decimal.

Answer: _____

2. A car travels 240 miles in 4 hours at a constant speed. Find the constant of proportionality (miles per hour), which is the value of k in y = kx.

Answer: _____

3. In a proportional relationship, y = 45 when x = 9. Find the constant of proportionality k.

Answer: _____

4. A proportional relationship has the equation y = 7x. Find the value of y when x = 8.

Answer: _____

5. A proportional relationship has the equation y = 0.25x. Find the value of x when y = 15.

Answer: _____

6. The cost of apples is proportional to the weight. If 5 pounds cost $12, write the constant of proportionality (dollars per pound) as a fraction.

Answer: _____

7. A table shows a proportional relationship: when x = 3, y = 21; when x = 5, y = 35. Find the constant of proportionality k.

Answer: _____

8. Points on a proportional relationship's graph pass through the origin and through (4, 10). Find the constant of proportionality k as a fraction or decimal.

Answer: _____

9. A worker earns money proportional to hours worked, with equation y = 15x, where y is dollars and x is hours. How much does the worker earn for 6 hours?

Answer: _____

10. For a proportional relationship y = kx, you know that y = 84 when x = 12. Using this same relationship, find y when x = 7.

Answer: _____

11. A map uses a scale where 2 inches represents 50 miles proportionally. Find the constant of proportionality in miles per inch.

Answer: _____

12. Determine whether the relationship in this table is proportional. The pairs (x, y) are (2, 6), (4, 12), (5, 15). Answer yes or no.

Answer: _____