

Unit 5: Linear Relationships

PRACTICE · SET 2

Name: _____ Date: _____

Solve each problem and write your answer in simplest form; give coordinate answers as (x, y).

1. A car travels 180 miles in 3 hours at a constant rate. What is the constant of proportionality (miles per hour)?

Answer: _____

3. Find the slope of the line that passes through the points (2, 3) and (6, 11).

Answer: _____

5. For the line $y = 3x - 7$, what is the value of y when $x = 4$?

Answer: _____

7. Write the slope of a line that has equation $y = -\frac{5}{3}x + 8$. Give the slope only.

Answer: _____

9. Solve the system by substitution: $y = 2x + 1$ and $y = x + 4$. Give the solution as a coordinate pair (x, y).

Answer: _____

11. Solve the system: $3x + 2y = 12$ and $x = 2$. Give the solution as a coordinate pair (x, y).

Answer: _____

2. In a proportional relationship, $y = 4.5$ when $x = 9$. Find the constant of proportionality k (where $y = kx$).

Answer: _____

4. Find the slope of the line through the points (-1, 5) and (3, -3).

Answer: _____

6. A line has slope 2 and passes through the point (0, -5). What is its y-intercept?

Answer: _____

8. A line passes through (0, 4) and has slope 3. What is the value of x when $y = 19$?

Answer: _____

10. Solve the system by elimination: $x + y = 10$ and $x - y = 4$. Give the solution as a coordinate pair (x, y).

Answer: _____

12. Solve the system by elimination: $2x + y = 7$ and $x - y = 2$. Give the solution as a coordinate pair (x, y).

Answer: _____