

Chapter 8 — Systems of Equations

Worksheet A: Guided Practice

Name: _____ Grade: _____ Date: _____

1. Two lines intersect at (2, 5). What does this point represent for the system?

The solution makes both equations true.

2. Two lines have the same slope but different y-intercepts. How many solutions does the system have?

Same slope, different intercept means parallel.

3. Two equations graph as the exact same line. How many solutions does the system have?

Every point on the line works in both equations.

4. Solve $y = -2x + 5$ and $x - 2y = -5$.

Replace y with $-2x + 5$.

5. Solve $y = x + 6$ and $2x + y = 12$.

Substitute $x + 6$ for y .

6. Solve $y = 3x - 1$ and $y = -x + 11$.

Set the two expressions for y equal.

7. Solve $x + y = 13$ and $x - y = 1$.

Add the equations to eliminate y .

8. Solve $3x + y = 16$ and $3x - y = 8$.

Add the equations to eliminate y .

9. Solve $2x + y = 16$ and $x - y = 2$.

Add the equations to eliminate y .

10. Is $(2, 3)$ a solution to $x + y = 5$ and $2x - y = 1$? Show both checks.

Substitute into both equations.

11. A movie ticket costs twice as much as a snack. Together they cost \$15. Let m be the ticket price and s be the snack price. Write a system for this situation.

One equation is $m + s = 15$.

12. Solve the system from Question 11.

Substitute $2s$ for m .

13. Why is $x = 4$ not a complete answer for a system with x and y ?

A solution needs both coordinates.

14. Classify $3x + y = 10$ and $6x + 2y = 20$.

Is one equation a multiple of the other?

15. Classify $x + 2y = 6$ and $2x + 4y = 15$.

Compare the second equation to twice the first.
