

Name _____

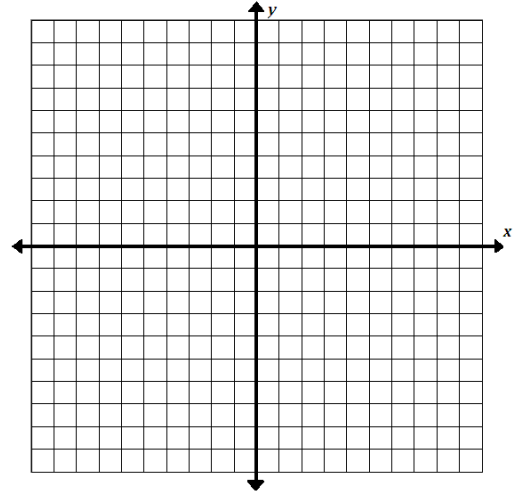
Period _____

Systems of Equations Worksheet 2

Solve each system of equations by graphing.

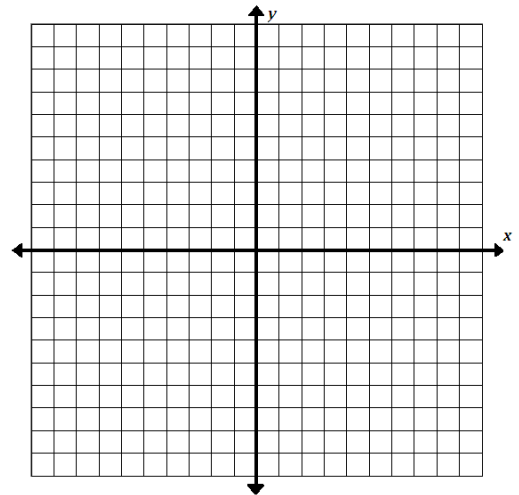
1. $y = 3x - 1$
 $y = -x + 3$

Solution: _____



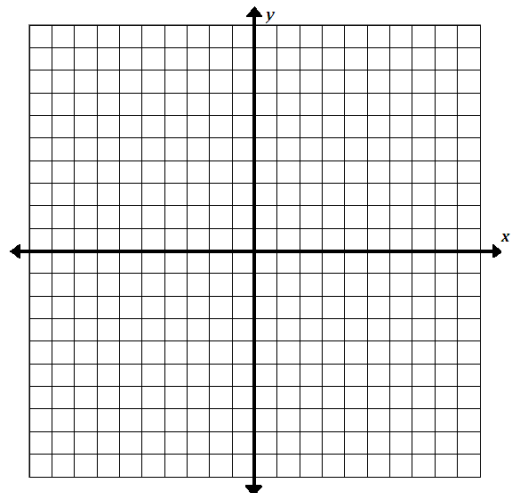
2. $-x + 2y = -2$
 $y = \frac{1}{2}x + 3$

Solution: _____



3. $x + y = 10$
 $x - y = 2$

Solution: _____



Solve each system of equations.

4. $y = 3x + 11$
 $y = -2x + 1$

5. $4x - y = -12$
 $-6x + 5y = -3$

6. $y = -3x + 5$
 $8x + 2y = -2$

7. $3y = 12$
 $4x + 2y = 36$

8. $8x + 11y = 20$
 $5x - 11y = -59$

Write a system of equations for each word problem. Solve the system.

9. The difference of two numbers is 17. The sum is 79. Find the numbers.
10. An airplane traveled 284 mph when traveling with the wind. During the return flight against the same wind, the airplane traveled 268 mph. Find the speed of the plane in still air and the speed of the wind.
11. On a special day, tickets for a minor league baseball game cost \$5 for adults and \$1 for students. The attendance that day was 3,597 for a total of \$9,993 in ticket sales. Find the number adults and the number of students that attended the game.

True/False.

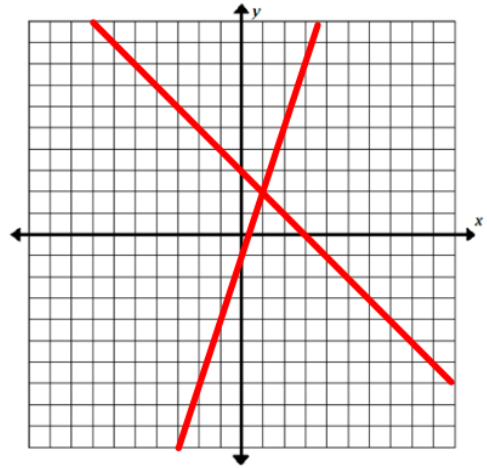
12. _____ True/False. It is possible to have no solution for a system of equations.

Systems of Equations Worksheet 2 Answers

Solve each system of equations by graphing.

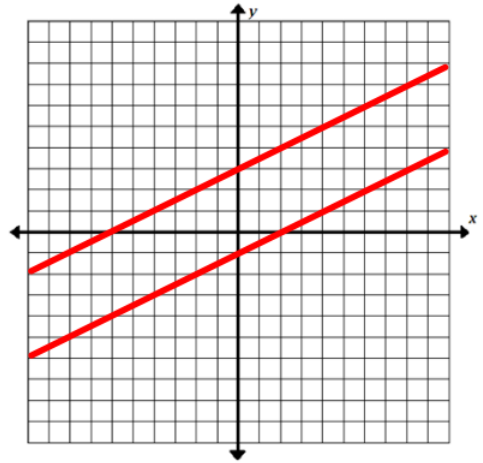
1. $y = 3x - 1$
 $y = -x + 3$

Solution: $(1, 2)$



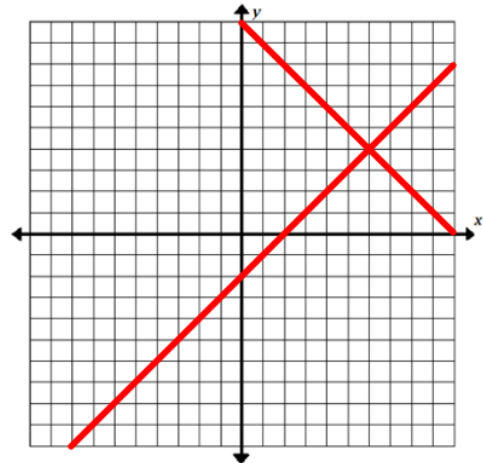
2. $-x + 2y = -2$
 $y = \frac{1}{2}x + 3$

Solution: No Solution



3. $x + y = 10$
 $x - y = 2$

Solution: $(6, 4)$



Solve each system of equations.

4. $y = 3x + 11$
 $y = -2x + 1$

$(-2, 5)$

5. $4x - y = -12$
 $-6x + 5y = -3$

$(-4.5, -6)$

6. $y = -3x + 5$
 $8x + 2y = -2$

$(-6, 23)$

7. $3y = 12$
 $4x + 2y = 36$

$(7, 4)$

8. $8x + 11y = 20$
 $5x - 11y = -59$

$(-3, 4)$

Write a system of equations for each word problem. Solve the system.

9. The difference of two numbers is 17. The sum is 79. Find the numbers.

$$x - y = 17$$

$$x + y = 79$$

$$(48, 31)$$

10. An airplane traveled 284 mph when traveling with the wind. During the return flight against the same wind, the airplane traveled 268 mph. Find the speed of the plane in still air and the speed of the wind.

$$a + w = 284$$

$$a - w = 268$$

$$\text{Speed of the plane: } 276 \text{ mph; } \text{Speed of the wind: } 8 \text{ mph}$$

11. On a special day, tickets for a minor league baseball game cost \$5 for adults and \$1 for students. The attendance that day was 3,597 for a total of \$9,993 in ticket sales. Find the number adults and the number of students that attended the game.

$$5a + s = 9,993$$

$$a + s = 3,597$$

$$1,599 \text{ adults; } 1,998 \text{ students}$$

True/False.

12. _____ **True**/False. It is possible to have no solution for a system of equations.