

Day 5 – Solving Systems Using Elimination

Name: _____

Practice Assignment

Date: _____ Block: _____

Using the graphic organizer on page 14, answer the following questions:

- a. If two lines are parallel, what do you know about their slopes? _____
- b. If two lines create an infinite amount of solutions, what do you know about their equations? _____
- c. If you solve an equation by substitution or elimination and your equation is true, what is your conclusion about the number of solutions? _____
- d. If you solve an equation by substitution or elimination and your equation is false, what is your conclusion about the number of solutions? _____
- e. Give an example of an equation that would be concluded as having no solutions when solved by substitution. _____
- f. Give an example of an equation that would be concluded as having infinite solutions when solved by elimination. _____

Directions: Solve each system using elimination. Write your solution as an ordered pair unless the system has no or infinite solutions.

1. $-4x - 2y = -12$
 $4x + 8y = -24$

2. $4x + 8y = 20$
 $-4x + 2y = -30$

Solution:**Solution:**

3. $x - y = 11$
 $2x + y = 19$

4. $5y = 1 + 6x$
 $6x + 4y = -10$

Solution:**Solution:**

5. $-3x + 5y = 7$
 $3x - 5y = -7$

6. $6x - 18 = 12y$
 $6x = 12y - 16$

Solution:

Solution:

7. $2x + y = 9$
 $x + 2y = 12$

8. $x + y = 6$
 $2x + y = 8$

Solution:

Solution:

9. $-3x + 2y = -12$
 $x + 2y = -4$

10. $12x + 4y = -20$
 $6x + 2y = -10$

Solution:

Solution:

11. Solve by Substitution

$$y = -2x + 9$$
$$x + 2y = 12$$

12. Solve by Substitution

$$x = 3y + 3$$
$$-2x + 6y = 2$$

Solution:

Solution: