Systems of Linear Equations in Two Variables

1. Determine whether the given ordered pair is a solution of the system

$$(-2,3)$$
$$5x+4y=2$$
$$7x-y=-17$$

2. Determine whether the given ordered pair is a solution of the system

$$(1,5)$$
$$8x-2y=-2$$
$$7x+3y=10$$

3. Solve each system by the substitution method

$$5x-4y=30$$
$$y=2x-9$$

4. Solve each system by the substitution method

$$3x+8y=13$$
$$-x+2y=-9$$

5. Solve each system by the substitution method

$$y=\frac{-1}{4}x-3$$
$$y=\frac{-5}{2}x+7$$

6. Solve each system by the addition method

$$5x + 4y = -13$$
$$2x - 4y = 6$$

7. Solve each system by the addition method

$$-3x - 2y = -8$$
$$5x + y = 18$$

8. Solve each system by the addition method

$$5x - 3y = 17$$
$$3x + 2y = 14$$

9. Solve each system by the addition method
SETUP

$$-7x = 3y - 20$$
$$4y = 18 - 5x$$

10. Solve by the method of your choice. Identify systems with no solution and systems with infinitely many solutions, using set notation to expression their solution sets.

$$8x + 4y = 3$$
$$y = -2x + 5$$

11. Solve by the method of your choice. Identify systems with no solution and systems with infinitely many solutions, using set notation to expression their solution sets.

$$8x + 2y = 6$$
$$y = -4x + 3$$

12. Solve by the method of your choice. Identify systems with no solution and systems with infinitely many solutions, using set notation to expression their solution sets.

SETUP

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

$$4x-y=8$$