Lesson 4 – 2

Systems of Linear Equations

Algebra 2
Ms. Brunsting

Read pages 112 – 116.

Fill in the blank.

1. A system of two lines that intersect has _____ solution.

   These equations are called _____.

2. A system of two parallel lines has _____ solutions.

   These equations are called _____.

3. A system of two lines that are directly on top of each other has _____ solutions.

   These equations are called _____.

Solve these systems by accurately graphing **on graph paper**. Write the coordinates of the solution on the graph.

1. $x + y = 8$
   $x - y = 4$

2. $x + 2y = 5$
   $x + y = 3$

Solve each system using substitution. Show your work.

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

5. $5x - y = 13$
   $2x + 3y = 12$

Solve each system using elimination. Show your work.

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

7. $2x + y = 1$
   $4x + 2y = 3$

8. $5x - 4y = 7$
   $7x - 3y = 2$

9. $2x + 4y = \frac{2}{3}$
   $3x - 5y = -10$

10. $3x - 6y = 2$
    $5x + 4y = 1$

11. $2x + 3y = 6$
    $x - y = \frac{1}{2}$

Determine whether each system is dependent, independent, or inconsistent. Show your work.

12. $18x + 42y = 24$
    $24x + 56y = 40$

13. $21x - 49y = 28$
    $27x + 63y = 45$

14. $24x + 56y = 32$
    $18x + 42y = 24$

15. $15x + 35y = 20$
    $-18x - 42y = -30$