**Objective:**

**1.) I will be able to solve system of linear equations by using a graph.**

**2.) I will be able to analyze special types of system of linear equations.**

* Two or more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with the same variables.

Ways to solve a system of linear:

1.)

a.

b.

2.)

a.

b.

Solution to a system of linear equations:

***Example 1***: Is each ordered pair a solution to the system of equations?

1.) (2, 1) 2.) (-3, 7)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.) (2, 3) 4.) (2, 1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Example 2***: Solve each system of equations by graphing. Check your solution.







If two lines are graphed together, how many points of intersection can there be?

1.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3.) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y = -2x + 8 and y = 2x y = 2x and y = 2x+8 y = 2x – 1 and 8x – 4y = 4

Without graphing how can you tell the number of solutions a system of equations will have?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of solutions to systems of linear equations

|  |  |
| --- | --- |
| **# of Solutions** | **How do you tell without graphing** |
|  |  |
|  |  |
|  |  |

**Example 3**: How many solutions does each system of linear equations have?

1.) 2.)

3.) 4.)

