

NOTES: Section 3.1 – Solve Linear Systems by Graphing

Goals: #1 - I can solve a linear system using the graphing method and then check my solution algebraically.

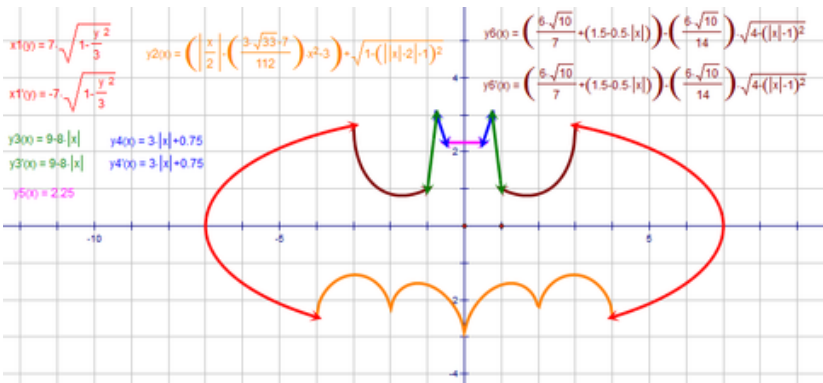
#2 - I can classify a system as consistent and independent, consistent and dependent, or inconsistent.



Homework: Lesson 3.1 Worksheet

Warm Up:

- Identify the domain and range of the given relation. Then tell whether the relation is a function.



a. Domain: _____

b. Range: _____

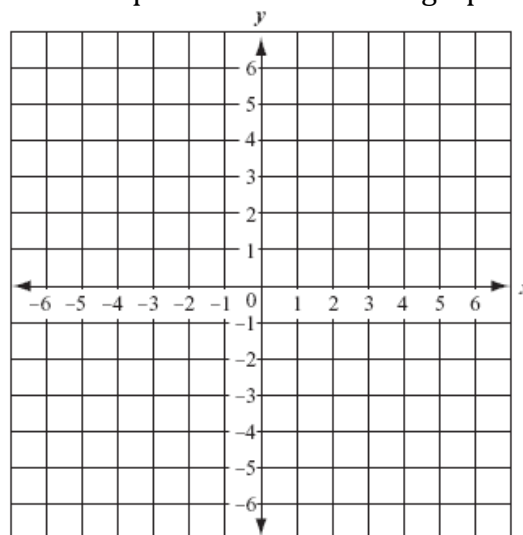
c. Function?: _____

Why?

Exploration #1: Work with a partner. Graph both linear equations on the same graph.

$$4x + y = 8$$

$$2x - 3y = 18$$



Circle where these lines intersect. Can you check if your answer is correct?

Name: _____ Hour: _____ Date: _____

Notes:

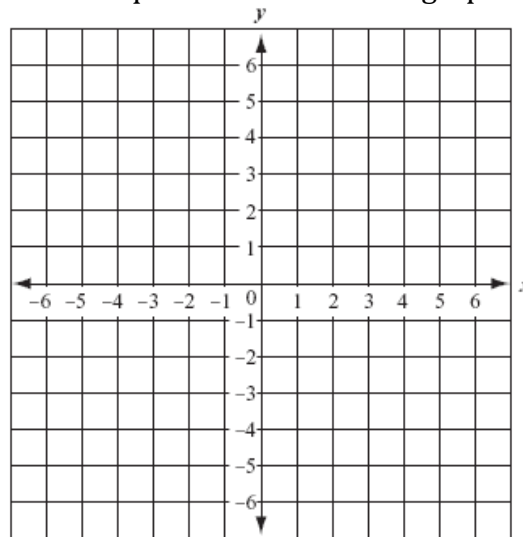
A _____, consists of two _____ equations.

A _____ of a system of linear equations, is a _____
(x, y) where the graphs of the equations in a system _____.

Exploration #2: Work with a partner. Graph both linear equations on the same graph.

$$2x + y = 4$$

$$2x + y = 1$$



Circle where these lines intersect. Can you check if your answer is correct?

Notes:

Lines that never intersect are called _____.

Since the graphs of the system do _____ intersect, we have _____.

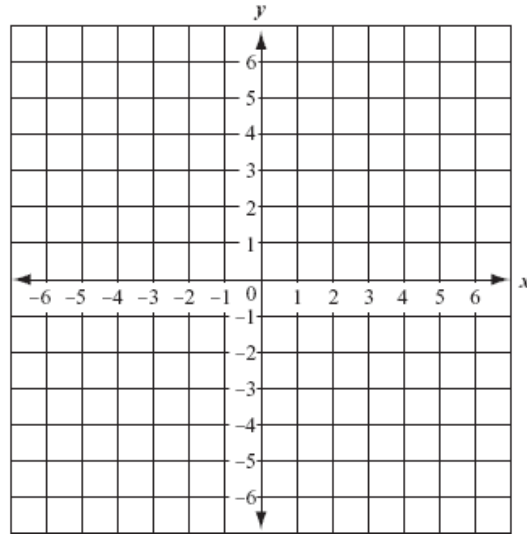
CHALLENGE: Could we have a system with a solution besides ONLY ONE SOLUTION, or NO SOLUTION?

Name: _____ Hour: _____ Date: _____

Exploration #3: Work with a partner. Graph both linear equations on the same graph.

$$4x - 3y = 8$$

$$8x - 6y = 16$$



Circle where these lines intersect. Can you check if your answer is correct?

Notes:

Lines that intersect at every point are _____.

Since the graphs of the system intersect at _____ point, we have

_____.

Anytime there IS a solution to the linear system, we call the system _____.

- A consistent system can be _____ if there is _____ solution.
- A consistent system can be _____ if there is _____ solutions.

Anytime there IS NO solution to the linear system, we call the system _____.

