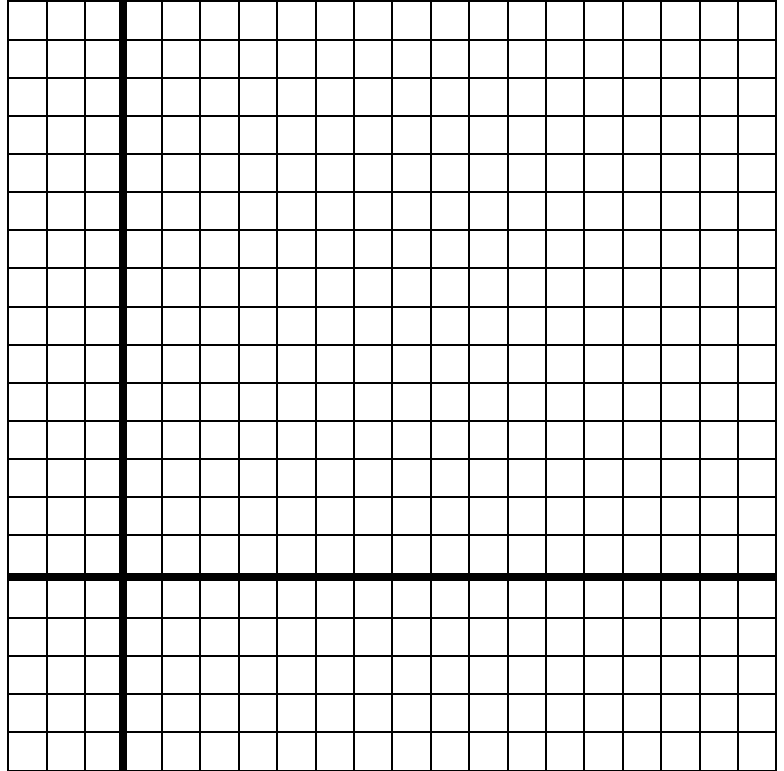


Math 100 Class Exercises 10-01

1. Graph and solve the linear system:

$$y = 2x + 3$$

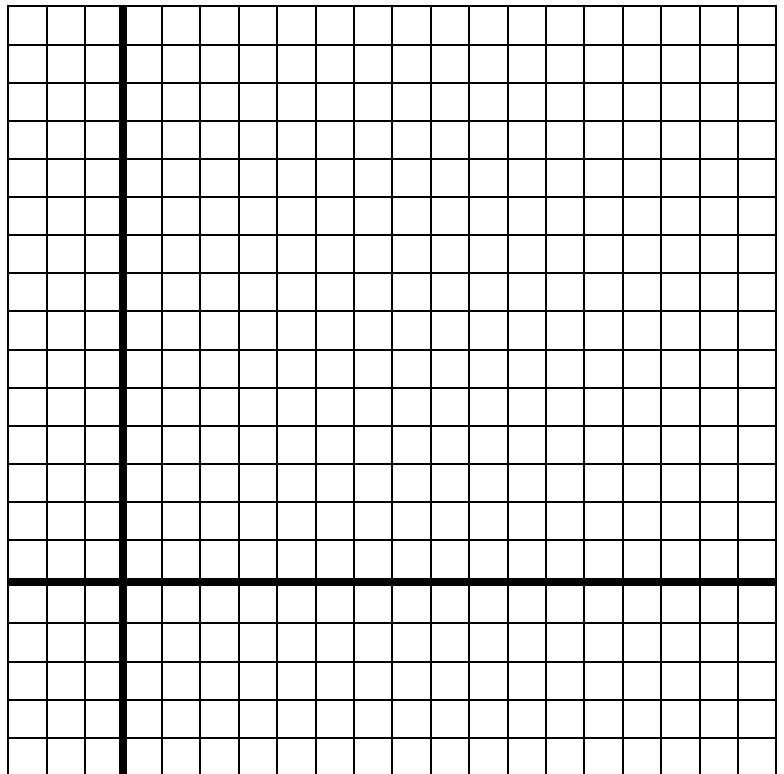
$$3x - y = 5$$



2. Graph and solve the linear system:

$$y = 2x + 3$$

$$4x - 2y = -6$$



3. Formulate and solve a linear system that can be used to solve the following problem.

Suppose we know the following about an employee's productivity:

Day 1: **During this 8-hour shift the employee made 6 units of product 1 and 8 units of product 2.**

Day 2: **During this 8-hour shift the same employee made 3 units of product 1 and 12 units of product 2.**

(*) Suppose we are interested in knowing, on the average, how long it takes the worker to make one unit of product 1 and how long it takes the worker to make one unit of product 2.

Using each day's information, we can say:

The number of hours spent working on units of product 1 plus the number of hours spent working on units of product 2 is equal to the 8 hours in the worker's shift.

Suppose we let

**t_1 = the number of hours required to make one unit of product 1, and
 t_2 = the number of hours required to make one unit of product 2.**

We can now formulate and solve a linear system to address the question (*) above.