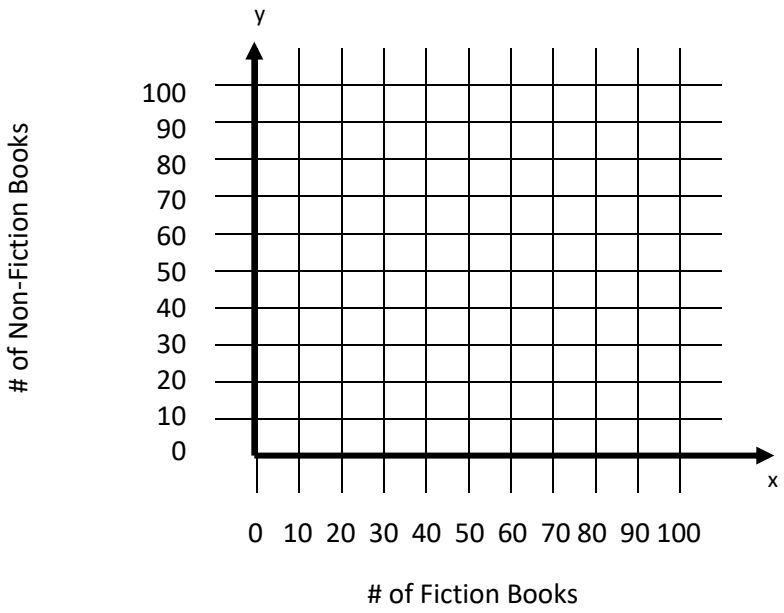
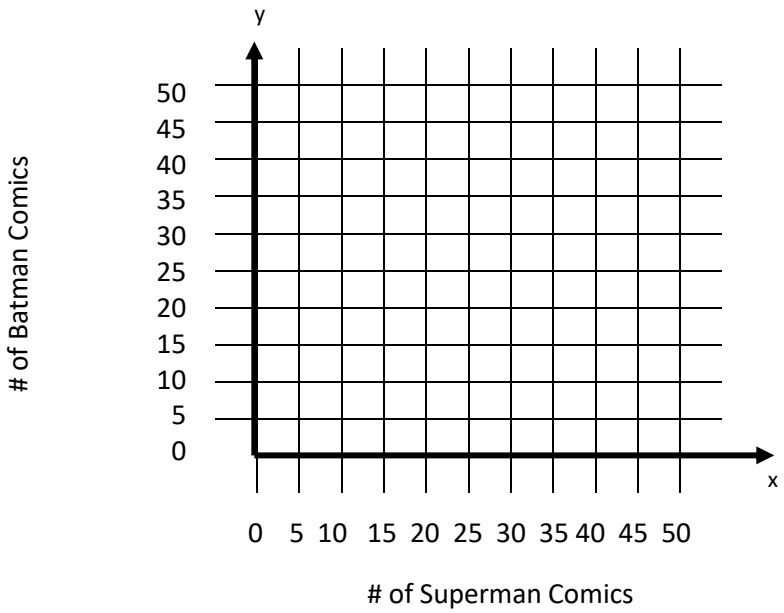
Name: Date: Period:

When graphing real life situations, most of the time negative numbers do not make sense in the problem so we only need to show Quadrant I of the x and y axes. Some helpful hints for setting up your graphs:

- Make sure to **label** both your x and y axis based on your "Let" statements.
- When numbering your axes, you do not always have to go up by 1. Use common sense to determine an appropriate scale. For example, if you have a y-intercept of 100, use a scale of 10.
- The most commonly used scales are 1's, 2's, 5's, 10's, sometimes even 100's. You can use ANY scale you want as long as:
    - The numbers for both x and y go up consistently (by the same multiples)
    - It is usually helpful to use the same scales for both x and y

Below are two samples of what your graphs could possibly look like. Again, use common sense to determine an appropriate scale!

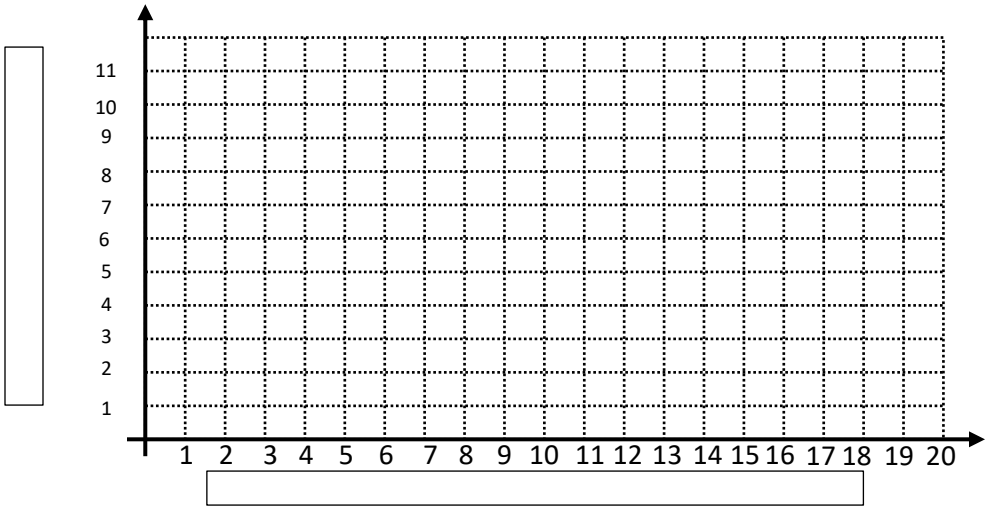




Example 1:
In order to prepare for your summer bash, you go to the supermarket to buy hamburgers and chicken. Hamburgers cost $2 per pound and chicken costs $3 per pound. You have no more than $30 to spend. You expect to purchase at least 3 pounds of hamburgers.

Give three possible combinations for buying hamburgers and chicken for your summer bash. Justify your answers.

Let Statements	System of Inequalities	Standard Form	
			solid or dotted m = _____ b = _____ above or below
			solid or dotted m = _____ b = _____ above or below



Example 2:
A Dinner Theatre actress is paid $250 per day to rehearse the play and $500 per day to perform in front of an audience. In one season, an actress earned between $2000 and $5000.

Identify two different ways the actress may have earned her salary. Justify your answers.

Let Statements	System of Inequalities	Standard Form	
			solid or dotted m = _____ b = _____ above or below
			solid or dotted m = _____ b = _____ above or below