Date: _____

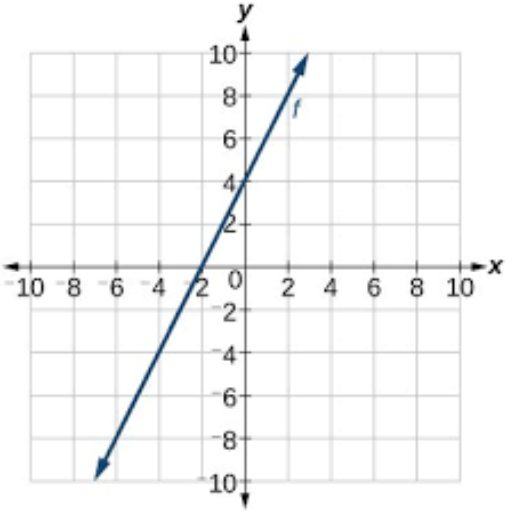
Bell Work (Submit this on Edsby as a PDF!)

1) A line has a slope of -2 and a y-intercept of 5. Write its equation, and then complete the ordered pairs (-2, y) and (x, 4).

2) A line has a slope of $^{4}/_{3}$ and passes through the point (9, 1). Determine the equation of the line.

3) A line passes through (-2, 3) and (-7, -4). Determine the equation of the line.

4) Write the equation of the line shown below.



Date: _____

6.7 Linear Systems of Equations

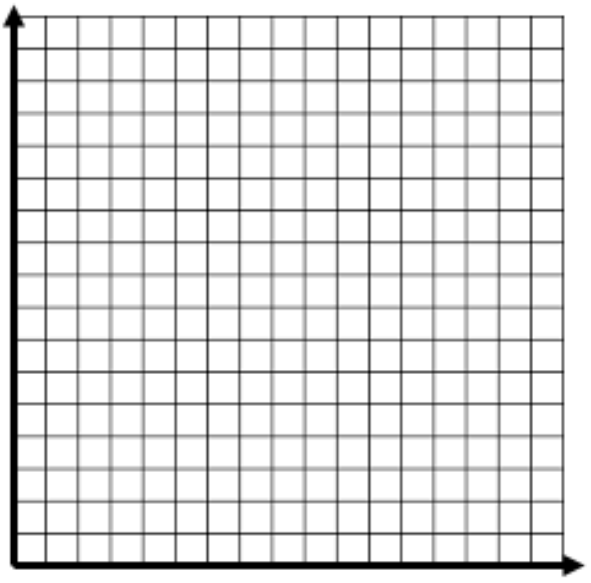
Let's look at our last handout.

Tools R Us rents snow blowers for a base fee of $20, plus $8/h. XYZ Rentals rents them for a base fee of $12, plus $10/h.

a) Write an equation that represents the cost of renting a snow blower from Tools R Us.

b) Write an equation that represents the cost of renting a snow blower from XYZ Rentals.

c) Graph both lines on the same set of axes. (Make sure that your y – axis counts to at least 60 – use increments of $5).



d) What do you think that the point of intersection of the lines means in this situation?

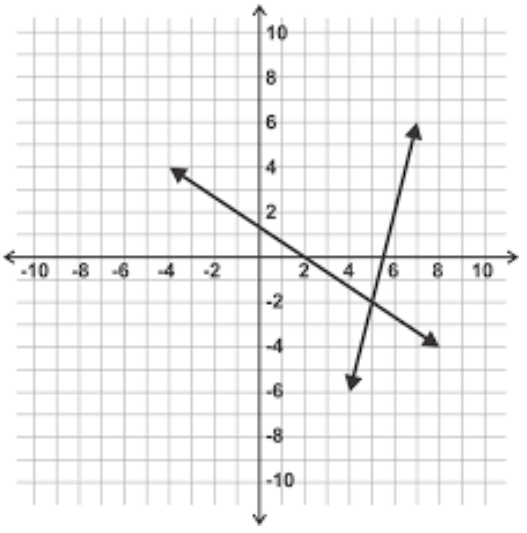
e) If you needed to rent a snow blower for 36 hours, which company would you choose and why?

This is an example of a linear system of equations. The point of intersection of the lines in the system of equation is called the solution for the linear system.

When you are asked to "solve a linear system by graphing" you are being asked to:

- graph both lines accurately,
- find the point of intersection, and
- state the coordinates of the POI as your solution.

Example: What is the solution to the linear system of equations shown below? What are the equations of the lines?



Example: Solve the linear system of equations given by graphing.

$y = -2x + 7$

$y = x + 1$