

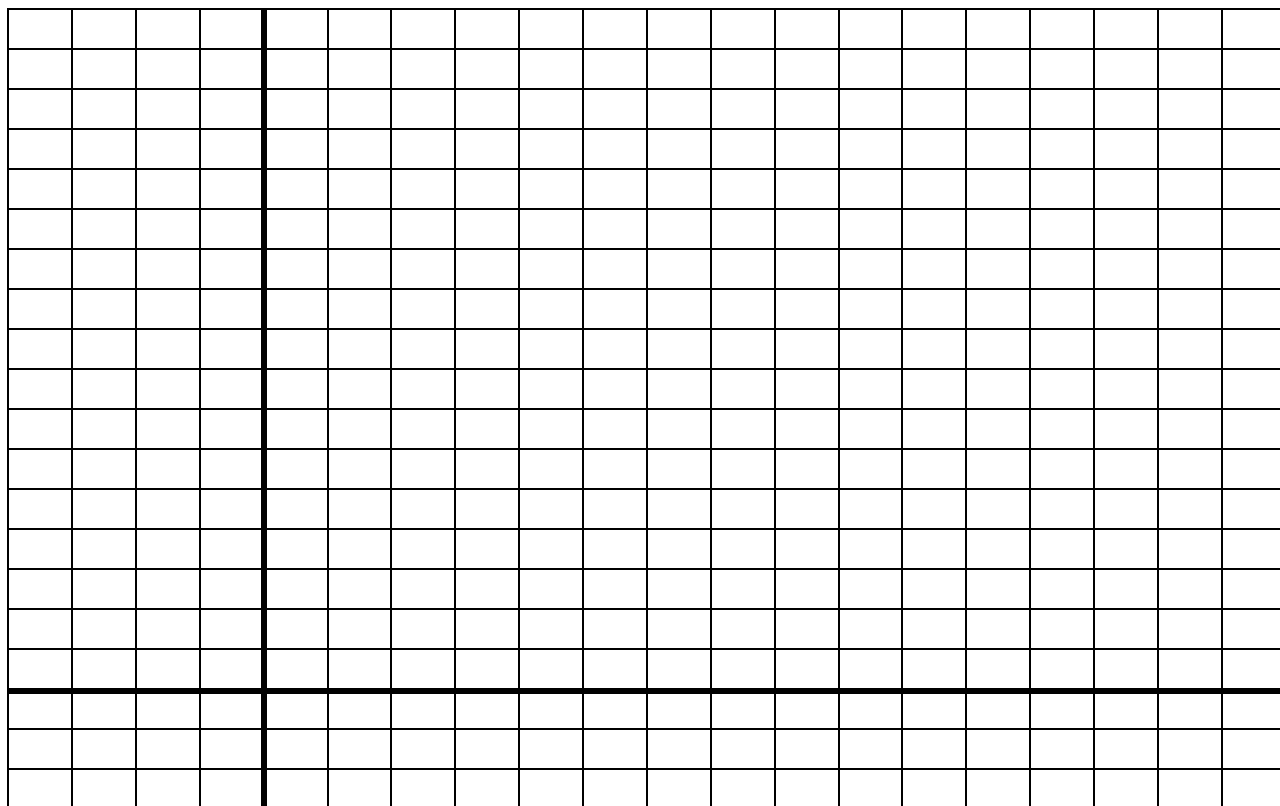
Name: _____

Lab: Linear Functions (Part 1 – in class)

Directions: Part 1 of this activity must be submitted today. Part 2 will be due at a later date. Though you are asked to work together, each student is responsible for his/her own work.

In fall of 2014 the cost for tuition at CCBC was \$113 per credit for in-county residents. An in-county student, Joan Cunningham, taking 12 billable hours paid a total of \$1721 to the CCBC bursar. Another in-county student, Bill Tanner, taking 7 billable hours paid a total of \$1031. In this project you will find that there are other charges that are assessed by CCBC. Some are flat fees; others are per credit fees.

- 1) Plot the above values on the grid below. Use the number of billable hours as the independent variable (horizontal axis). Label the graph and use appropriate values for the axes.



5) Use the model you created in #3 to determine the amount of money you need to take 6 billable hours. Round your answer to the nearest cent.

6) What is a reasonable domain for this model? Explain your answer.

7) What is a reasonable range for this model? Explain your answer.

8) What is the vertical intercept for the model? Describe what that value represents in terms of billable hours and cost. Does this value make sense based on your answers for #6 and #7?

9) What is the horizontal intercept for the model? Describe what that value represents in terms of billable hours and cost. Does this value make sense based on your answers for #6 and #7?

- 3) Write a summary of your findings from the in-class (Part 1) and out-of-class (Part 2) sections of this assignment. Include in the summary answers to the following questions:
- a) What is somewhat misleading about the idea that tuition at CCBC is a certain amount per credit?
 - b) What are the hidden costs of education that you discovered?
 - c) What are other hidden costs not discussed in this project?
 - d) What is your opinion of the value of the education at CCBC?