Linear Equation Review **Name: _____**
Slope-Intercept form of a Line **Date: _____**

Exploring Lines of the Form y=mx+b

If you have the eActivity on your ClassPad:

a) Open the eActivity application.

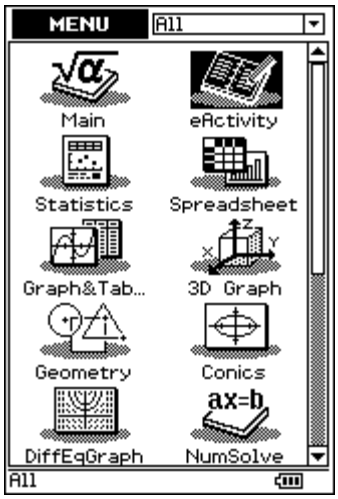
b) Select **File** and then **Open**.

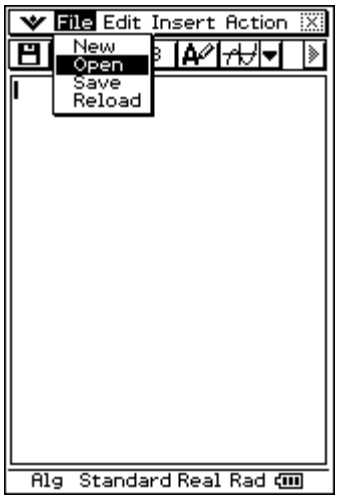
c) Open the **Linear** folder by tapping ▶. (It will change to ▼.)

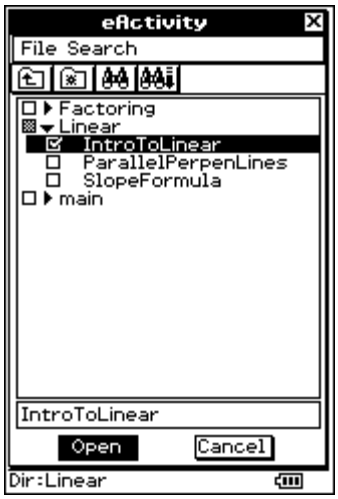
d) Select the file named "**IntroToLinear**".

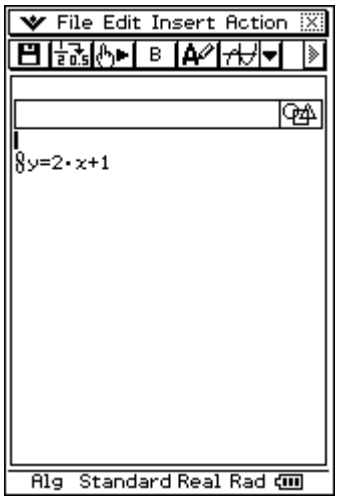
e) Tap the Open button.

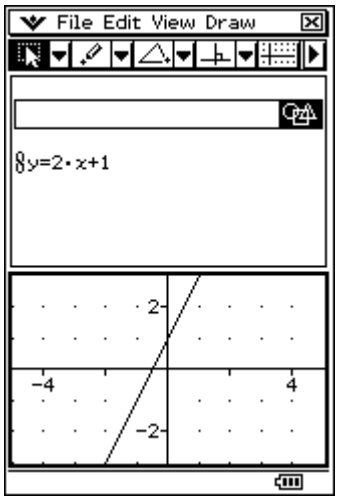
f) Expand the Geometry window by tapping 3.











If you do not have the eActivity on your ClassPad, please do the following:

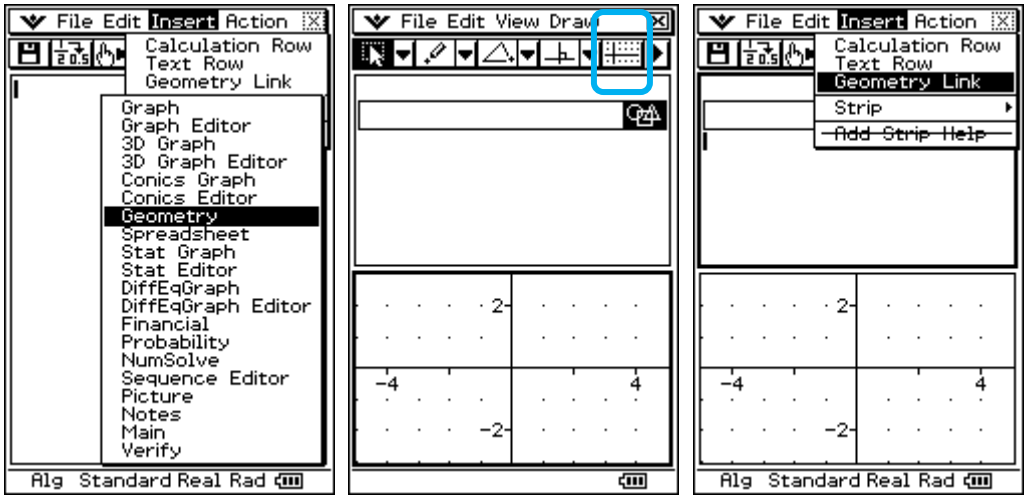
a) From the start menu (m) select A. Select Edit/Clear All if eActivity is not empty.

b) Next select **Insert/Strip/Geometry**.

c) Turn the axis and integer grid (dots) on by tapping q about three times.

d) **Tap back** in the eActivity window to bring it to life.

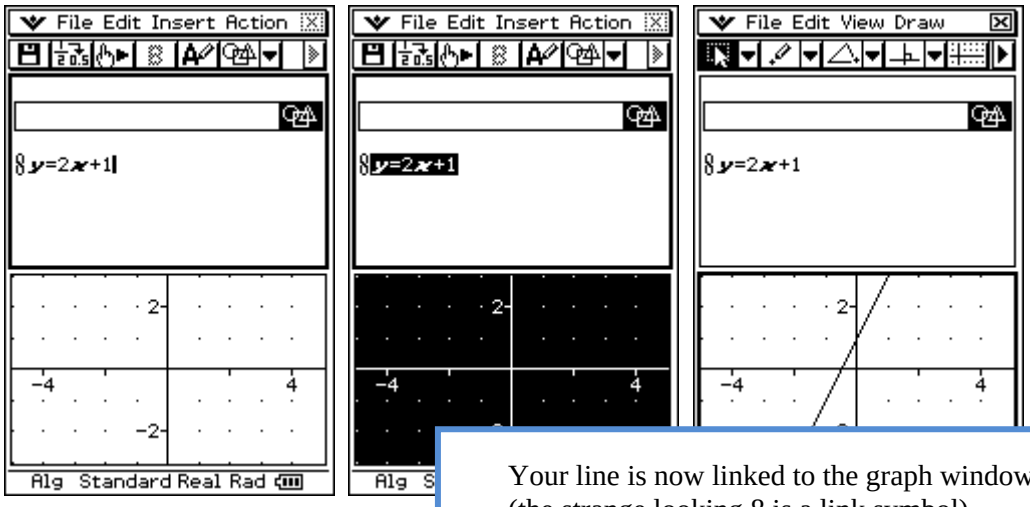
e) Select **Insert/Geometry Link**.



f) In the small box following the link, input **y=2x+1** and press E.

g) Select the **y=2x+1**, **let go** and then drag it to the Geometry window.

h) Your line is now linked to the Geometry window.



Your line is now linked to the graph window (the strange looking 8 is a link symbol). Change the equation and the graph updates. Or, drag the graph and the equation updates.

Complete the following exercises using the linked equation on the ClassPad.

1. Change the number in front of "***x***" to 3 different positive numbers larger than one. Remember to press EXE after each change.

   a) List the numbers your group choose:_____

   b) Sketch two of your choices, label the axis and write the equation next to each line. Every line deserves a name!

2. Change the number in front of "***x***" to 2 different positive small numbers (between 0 and 1).

   a) List the numbers your group choose:_____

   b) Sketch one of your choices, label the axis and write the equation next to it.

3. Change the number in front of "***x***" to 3 different negative numbers *less* than negative one.

   a) List the numbers your group choose:_____

   b) Sketch one of your choices, label the axis and write the equation next to it.

4. Change the number in front of "***x***" to 2 different negative numbers between -1 and 0.

   a) List the numbers your group choose:_____

   b) Sketch one of your choices, label the axis and write the equation next to it.

5. Describe the line when the number in front of the "***x***" is a negative number.

6. Describe the line when the number in front of the "***x***" is a positive number.

7. Change the "**+1**" *following* "***x***" to another number. Try 2 different numbers.

   a) List the numbers your group choose:_____

   b) Sketch one of your choices, label the axis and write the equation next to it.

8. The Slope-Intercept form of a line is often written as: y=m ***x*** +b

   a) In general, what does the number "m" in front of "***x***" do?

   b) In general, what does the number "b" following "***x***" do?

9. Without using the ClassPad, try to match each line to its graph.

   Line 1: y = 3x-2

   Line 2: y = -5x+1

   Line 3: y = x+1

   Matches with Line ___ Matches with Line ___ Matches with Line ___