

ClassPad 101

for ClassPad Version 3.00+

LESSON 5

Introduction to Basic eActivity Manipulations

Welcome

In this lesson, we will learn how to use the most unique application on the ClassPad: eActivity. Within the eActivity application, we can input text lines, math lines and as many other applications as we like. We can also save our work and then share it with others.

Lesson Goals

- To understand the difference between text and math lines
- To become comfortable using eActivity
- To understand the standard form of a circle

In Lesson 5, you will learn how to:

- Input text
- Input math
- Insert other applications
- Drag and drop within eActivity
- Drag and drop to other applications
- Save an eActivity

Upon completion of this lesson, you will be able to answer the following questions:

1. In eActivity, how do you know when you are on a math line?
2. In eActivity, how do you know when you are on a text line?
3. How do you make text bold?
4. When we drag a selection from one line to another, what happens?
5. When we drag a selection from one place in a line to another, what happens?
6. What is a "strip"?
7. How do you minimize a strip?
8. What does a Geometry Link let us do?

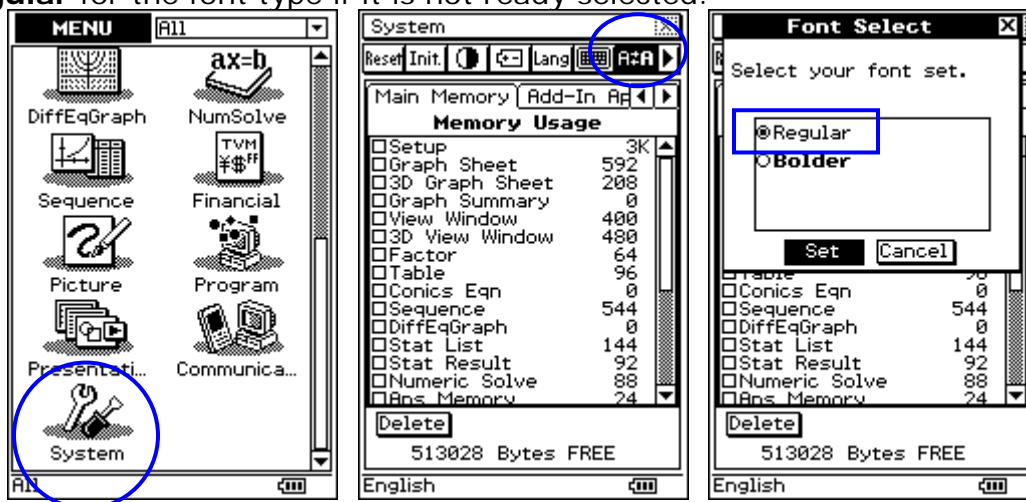
Time required

About 60 minutes.

Getting Started

Most of this lesson will be hands on. eActivity is a great application because there is so much you can do, and you can save your work.

But, before you begin, please **open the System application** from the main Menu (you may need to scroll down). **Click the $A \div A$ button** and select **Regular** for the font type if it is not ready selected.



This "Select your font set" feature makes it easier to see math and text on the handheld ClassPad but is not really needed on the PC. On the PC, we can make the ClassPad Manager larger by right clicking on it and selecting LCD or zoom x2 (if we want to).

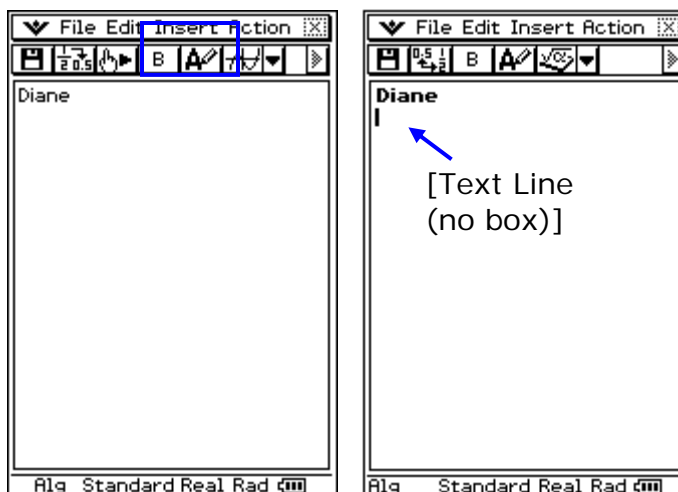
PART I

In this part, you will learn the difference between a text line and math line. We will also practice drag & drop and copy & paste.


1. Entering Text



When you click inside eActivity and the $A \div A$ shows, the line you are on is a text line. This means that when you press EXE nothing happens.

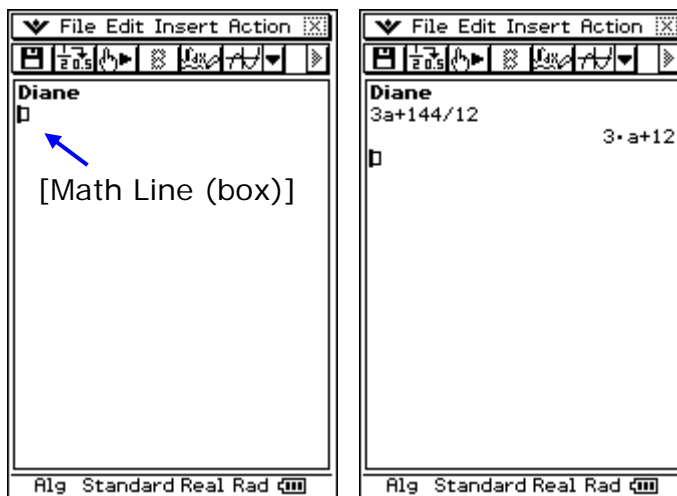
- Click M and then $A \div A$
- Clear your window (select **Edit/Clear All**)
- Type in your name
- Select your name
- Click the M button or press **Ctrl+b**
- Click at the end of your name to deselect
- Press **EXE**



2. Entering Math





When you click inside eActivity and the  shows, the line you are on is a math line. This means that when you press EXE something will happen!

- Make sure the cursor is on the line following your name
- Click** the  button to toggle to a *math line* () line
- The small box that appears indicates you are on a math line
- Input **$3a + 144/12$**
- Press **EXE**

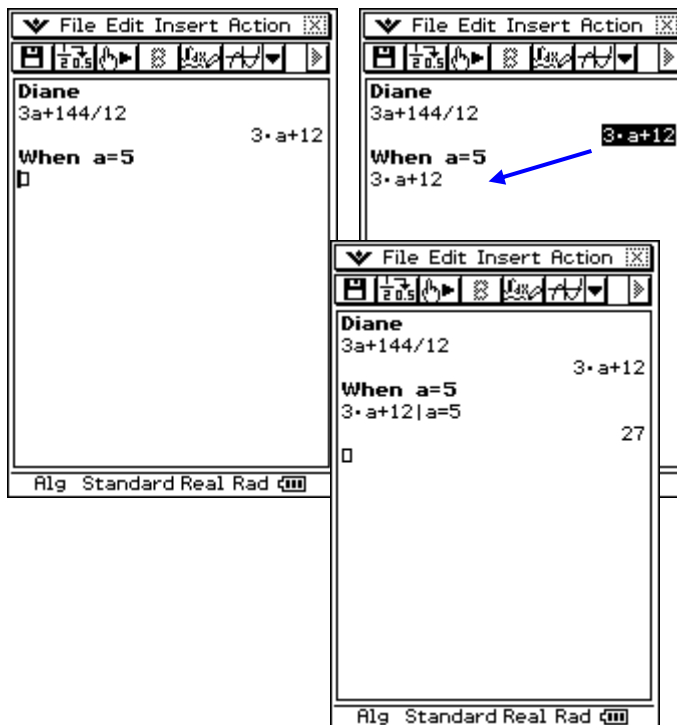


3. Text, Math and Drag & Drop




Now, we will evaluate our expression for different values of **a**, labeling each as we go.

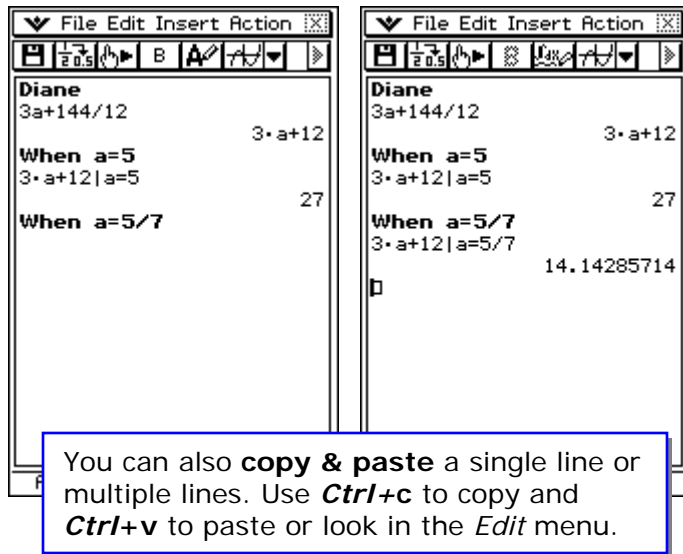
- Click** the  button to toggle to **text** (u) again (Notice the math box disappeared)
- Type in: **When a=5** and make it bold
- Press **EXE**
- Click** the  button to toggle to **math** ()
- Select your expression output and drag to the math line (to the )
- Following your expression, type in **|a=5**
- Press **EXE**

***Recall:** The "|" is called the "with key". It lets you temporarily store a value in a variable. It looks like "**!**" on your computer keyboard.



4. Text, Math and Drag & Drop (continued)

- Click on the next line (with the □)
- Change to a text line (toggle  to u)
- Select **When a=5** and let go
- Press and drag it to your new text line
- Edit **a=5** to show **a=5/7**
- Change the next line to a math line (toggle u to )
- Input: **3a+12|a=5/7**
- Press **EXE**
- Select the output and then click the  button



PART I

Practice Exercises

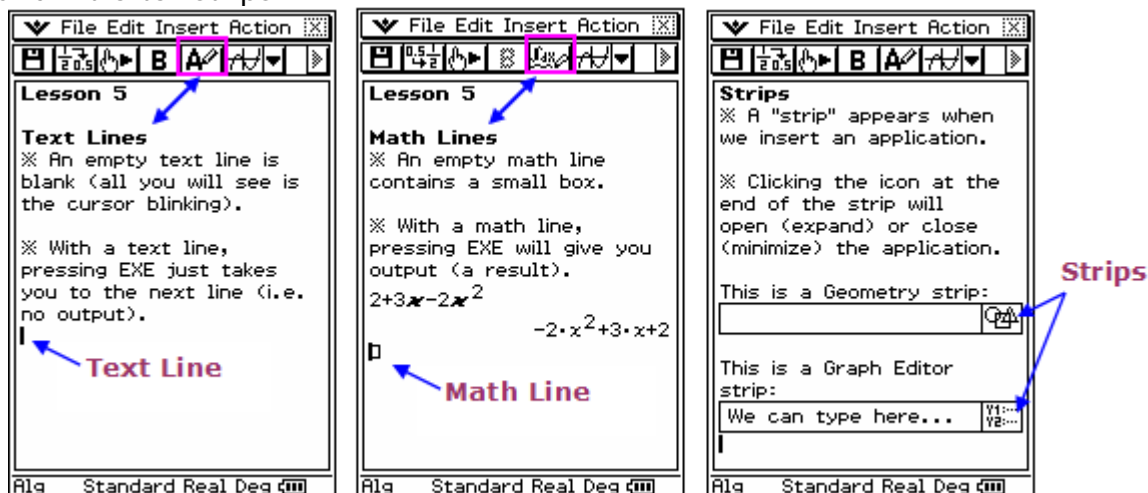
Before beginning the practice exercises, open a word document, type in the following information and then *save it as Lesson5 in your CASIO folder within My Documents*:

- Date: (enter today's date)
 - To: (put your instructor's name here)
 - From: (put your name here)
 - Re: Lesson 5
1. Please open the eActivity application and clear the window.
 2. Type in your favorite type of food and make it bold.
 3. Get a **screen capture** and paste it into your Lesson5 document (under a title of PART I).
 4. On the next line, evaluate: $4.99 + 18.05 - 3.95$.
 5. Drag the *result* to the next line, add 5, and then display the output as a decimal.
 6. Get a **screen capture**. Add two blank spaces following the first screen capture and paste this one.
 7. Change your next input line to a text line and input "This is fun stuff." Press EXE or Enter.
 8. Select "This is fun stuff." and drag it to the next line.
 9. Select one word in the sentence and drag it to another location in the sentence. Notice what happens.
 10. Get a **screen capture**. Add two blank spaces following the second screen capture and paste this one. Thank you.

PART II

In part I, you learned about two types of lines that we can have in eActivity: text and math. In this part, you will learn about the third (and final) type of line that we can have in eActivity. This third type of line is called a "strip".

Knowing which type of line you are on is important. Here is a quick review and intro to "strips":

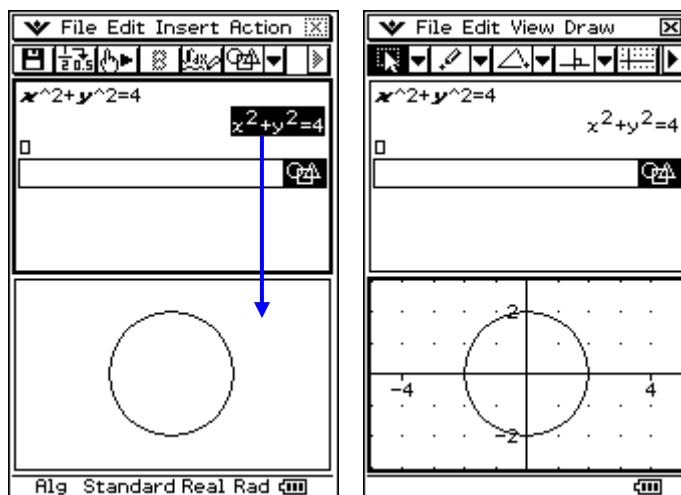


"Strip lines" provide housing for other applications. "Strips" allow you to open or minimize other applications within eActivity. As you will learn, each time you insert an application, a "strip" will appear.

1. Inserting a Geometry Application Strip

As you click in different windows notice how the border, toolbar buttons and menu items change. This is how you know which window you are in.

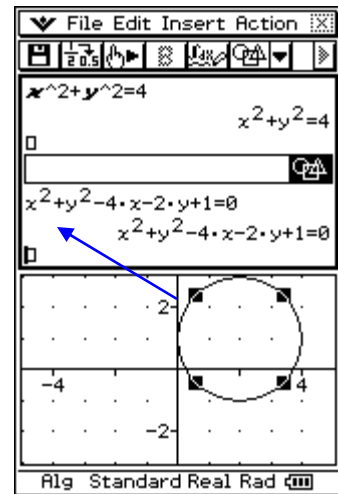
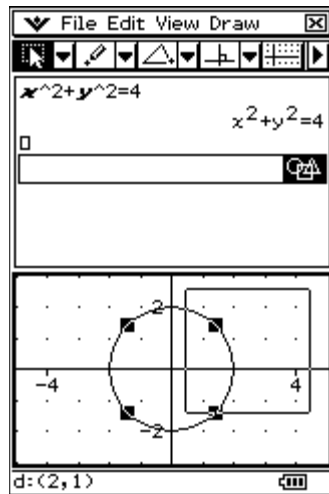
- Clear your eActivity window
- Input: $x^2+y^2=4$
- Click** the $\frac{u}{\square}$ to change to math and press **EXE** (you should get output)
- Open the **Insert** menu
- Select **Strip/Geometry**
- Select** your result in eActivity and **let go**
- Press** on the selection and **drag** it to the Geometry window
- Click** in Geometry
- Click** $\frac{q}{\square}$ three times
- Open the **View** menu and notice the **Integer Grid** is checked




Useful: The $\frac{q}{\square}$ button toggles between four states: axes on, with numbers, with integer grid on and back to all off.

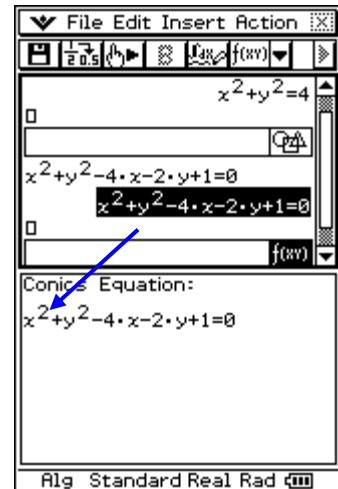
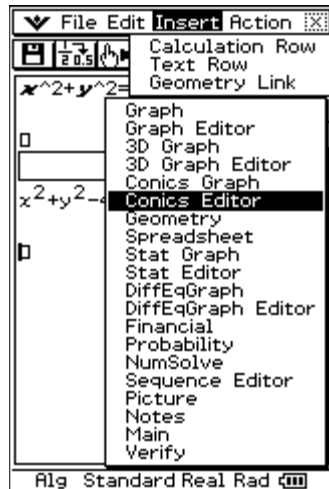
2. Changing the Circle

- Click on your circle to select it and let go
- Press near a handle (k) and drag to move your circle
- Press near a handle (k) and drag to just below the strip in eActivity (let go *when you see* the cursor blink)
- Change to a **math line**
- Press **EXE**
(We can improve this form!)



3. Inserting a Conics Editor Application Strip

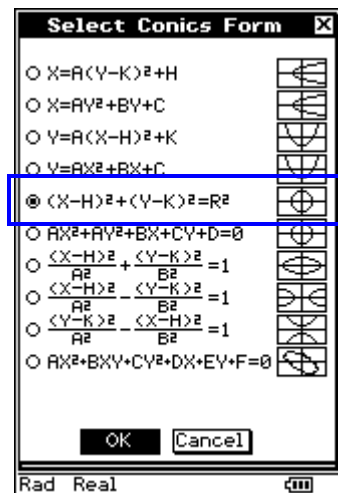
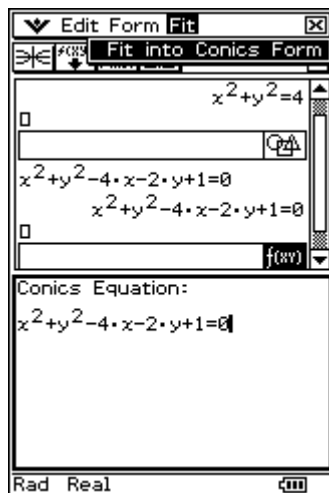
- Click the  icon at the end of your strip to minimize Geometry
- Click just below your circle equation
- Open the **Insert** menu
- Select **Strip/Conics Editor**
- In eActivity, select your circle equation and let go
- Press on your selection and drag to the Conics Editor




4. Putting a Circle into Standard Form

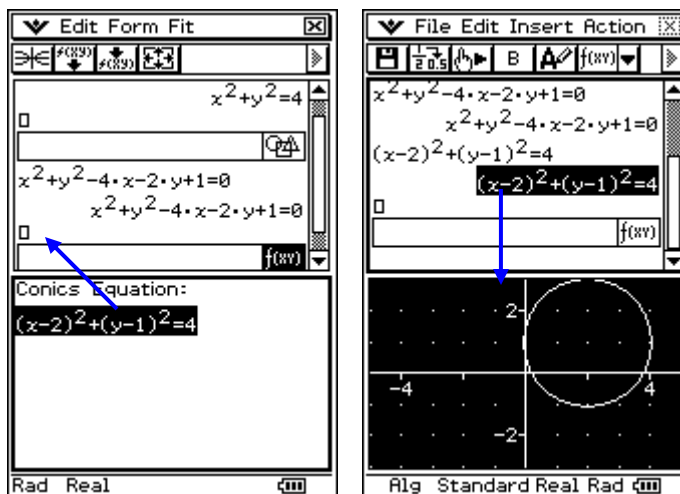
- Click inside the Conics Editor to give it focus
- Open the **Fit** menu
- Select **Fit into Conics Form**
- Select the standard form for a **circle**
- Click **OK**

* You can also click the W button to open the Select Conics Form dialog.



5. Compare Circles

- Select the new equation in the Conics Editor and **let go**
- Press on your selection and **drag** to eActivity
- Press **EXE**
- Click on  to open (expand) the Geometry window
- Select your circle in standard form (you may need to scroll down)
- Drag it to the Geometry window. Are they the same?



Any circle can be written in the form $(x-h)^2 + (y-k)^2 = r^2$.


When a circle is in this form, we can easily see its center, the ordered pair (h, k) and its radius length, r .

For example, $(x-2)^2 + (y-1)^2 = 4$ is centered at $(2, 1)$ and has a radius of

length 2. TRY changing your equation in eActivity to $(x-1)^2 + (y-1)^2 = 4$ and then drag it to the Geometry window again. Notice its center and radius!

PART II

Practice Exercises

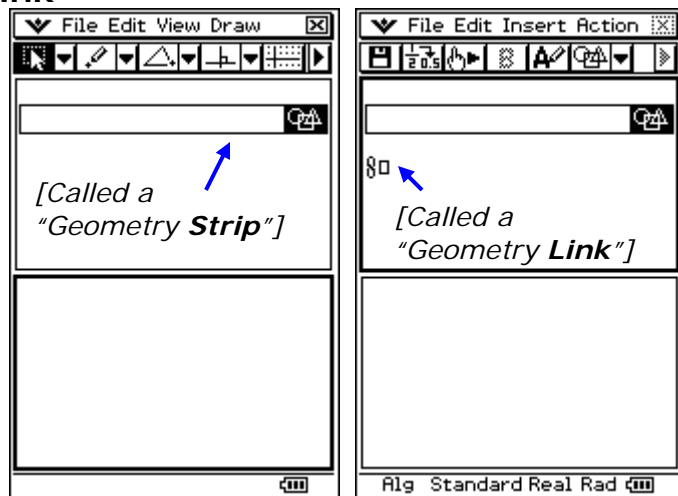
- Please start by clearing your eActivity window.
- Insert a Geometry strip; turn on the axes, numbers and integer grid.
- In eActivity, click below the Geometry strip, change to a math line and input $(x+1)^2 + (y-2)^2 = 9$.
- Press EXE and then drag your result to the Geometry window.
- Get a **screen capture** and paste it into your Lesson 5 document (under a title of PART II).
- Click in eActivity, just below your circle equation, and input a Notes strip (Notes is near the bottom of the Insert/Strip submenu).
- Click inside the Notes window and **type in** the center point of the circle **and** the radius length. Please be sure to label each.
- Get a **screen capture** with the Notes window open. Add two blank spaces following the first screen capture and paste this one.
- In eActivity, change $(x+1)^2 + (y-2)^2 = 9$ to $(x+1)^2 - (y-2)^2 = 9$.
- Press EXE and then drag your result to the Geometry window. Hint: Click  on the far right of the Geometry strip to open Geometry.
- Resize** the Geometry window. Get a **screen capture** with the Geometry window full size. Add two blank spaces and paste this one.

PART III

In this part, we will try and we will succeed in linking an equation to the Geometry window. When you move the graph in Geometry, you will see the equation update in eActivity. When you change the equation in eActivity, you will see the graph update in Geometry. Near the end, we will save our file as an eActivity for use in Lesson 6.

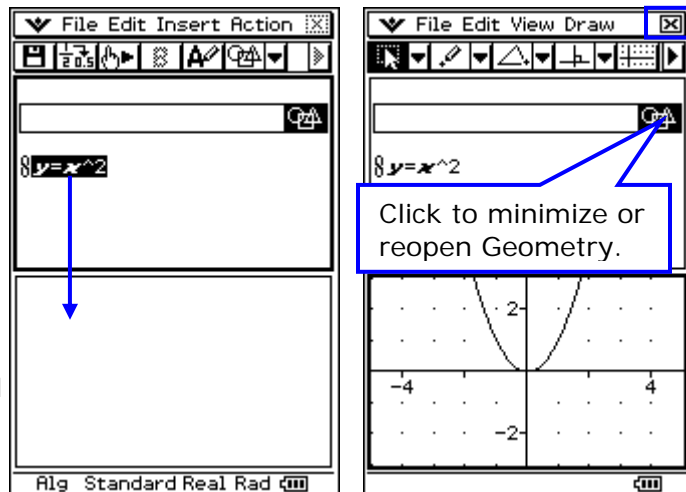
1. Inserting a Geometry Link

- Clear the eActivity window
- Open the **Insert** menu
- Select **Strip/Geometry**
- Click** below the Geometry strip that you just inserted
- Open the **Insert** menu and select **Geometry Link**



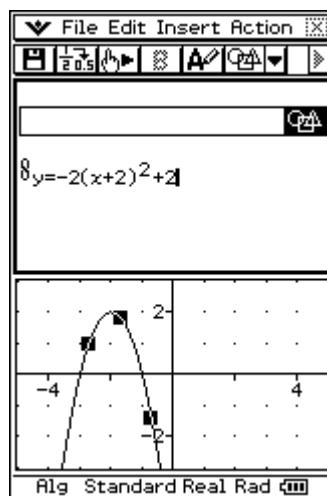
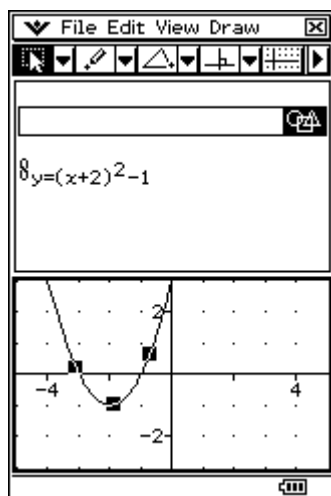
2. Linking an Equation to Geometry

- Click** in the box just following the link symbol
 - Input $y = x^2$
 - Select $y = x^2$ and let go
 - Press on your selection, hold and drag to the Geometry window
 - Click** \square **three** times
- * Try opening (expanding) and minimizing the Geometry window a few times. You can also minimize by clicking \square .



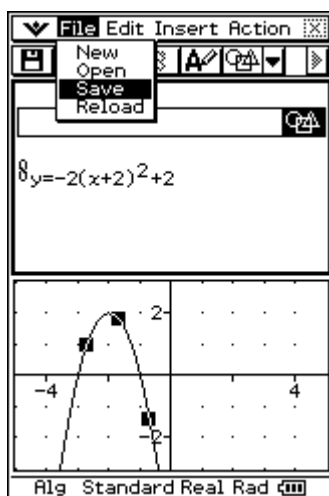
3. Exploring with the Geometry Link

- Select** the graph you just drew by tapping it
- Press on a handle (k) and **drag** to move your graph (notice the linked equation updated)
- Click in the **eActivity window**
- Change** your equation and press **EXE**
- Repeat steps b-d as many times as you'd like



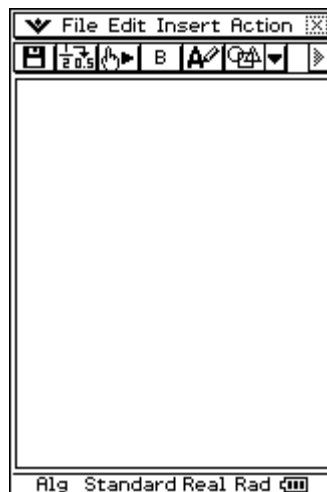
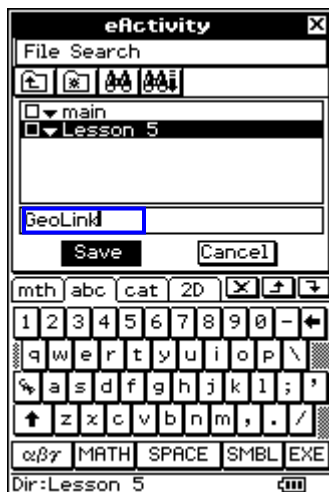
4. Creating a Folder in the eActivity Application

- [Important]** Click in the **eActivity window**
- Open the **File** menu and select **Save**
- Click { to create a new folder
- Name your folder **Lesson 5**
- Click **OK**



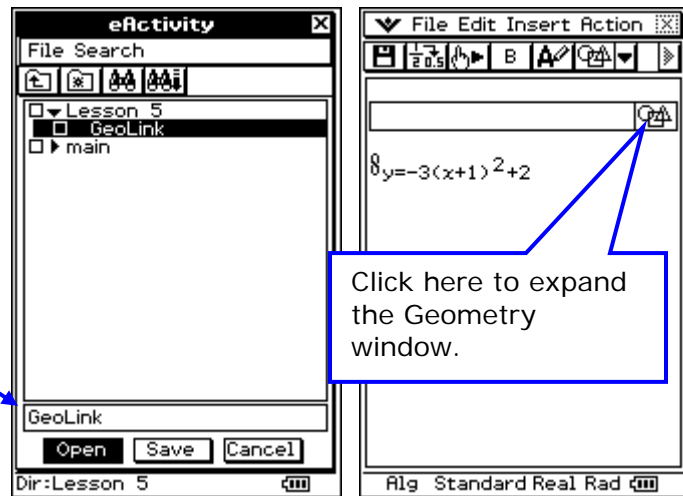
5. Saving an eActivity into your Folder

- Click on ' (just before your folder name) to expand your folder. It should now look like \$
- Click inside the **Edit box** and type in the name **GeoLink**
- Click **Save**
- Clear your eActivity window



6. Opening an eActivity

- Click the { button to quickly open the **Files dialog**
- Click the arrow preceding your folder to expand the folder, if needed
- Click on your **file name** to select it (notice it appears in the Edit box)
- Click **Open**
- Expand** the Geometry strip



PART III Practice Exercises

- Open the file **GeoLink** (called an eActivity) that you just created.
- Expand the Geometry strip and drag your graph slightly.
- Get a **screen capture** and paste it into your Lesson 5 document (under a title of PART III).
- Edit the equation in eActivity to be: $y = x^3 - 3x + 1$
- Press EXE so that its graph in the Geometry window updates.
- Get a **screen capture**. Add two blank spaces following the first screen capture and paste this one.
- Edit the equation in eActivity to be: $y = \text{abs}(x^3 - 3x + 1)$ [Note: abs stands for absolute value] and press EXE.
- Get a **screen capture** and paste it following the second screen capture for this practice set.

PART IV

Reflection Exercises

You have just completed the fifth lesson in ClassPad 101. Awesome! Please take a few moments to copy and paste the following three questions at the end of your Lesson5 document and answer them.

1. Approximately how long did it take you to complete this lesson?
2. Which activity did you enjoy the most?
3. Did you find any part of this activity difficult to follow? If so, which part? Also, how did you overcome the difficulty?

Assessment 5: Introduction to eActivity Manipulations

- **Checkpoint:** Your word processed document, titled "Lesson5", should contain the following activities:
 1. Three screen captures from PART I.
 2. Three screen captures from PART II.
 3. Three screen captures from PART III.
 4. Three reflection questions with answers from PART IV.
- **Submit** your **Lesson5 document** to your instructor for grading. Once your lesson is submitted, your lesson for ClassPad 101 "Intro to eActivity" is complete.