## Cabri Jr. - Getting Started with Triangles

Let us try some basic triangle constructions to help us get familiar with Cabri Jr.

First, turn on your TI-84 and press the APPS key. Arrow down until you see Cabri Jr and press ENTER. You should now see this introduction screen.


To begin the program, press any key. If a drawing comes up on the screen, press the $Y=$ key (note the F1 above and to the right of the key - this program uses F1, F2, F3, F4, F5 names instead of the regular key names) and arrow down to NEW. It will ask you if you would like to save the changes. Press the 2nd key and then enter to not save the changes.

We are now ready to begin.

## Part B

Now let us discover some properties of isosceles triangles. Go to F1 and select New. If you would like to save your work, press ENTER and type in a name then press ENTER again. If you do not want to save your work, press 2nd and then ENTER.

You should now have a blank screen. One way to create an isosceles triangle is with a circle, using two radii as sides of your triangle. Go to F2, down to circle and hit ENTER. Hit ENTER again when the pencil is where you would like the center of your circle and then move the pencil and hit ENTER when the circle is the size you would like.


Hit CLEAR to end using the circle tool. You now need another point on your circle. Go to F2, Point, and right arrow to Point on and hit ENTER.


Move the pencil where you would like your new point on the circle and hit ENTER.


Now you need to construct the triangle. Go to F2 and select Triangle.


Move the pencil until it is on one of the points, hit ENTER and then do the same at the other two vertices. Hit CLEAR when you have constructed your triangle.


Now hide the circle by going to F5, Hide/Show, Objects. Select the circle, and hit ENTER and then CLEAR. You should now only see your triangle. Drag the vertices around to see that it will always be an isosceles triangle.


Here are two items for you to now do on your own:

1. Measure the angles. Drag a vertex around. What can you conjecture?
2. Construct the bisector of the vertex angle. Measure the angles created by the angle bisector and the base of the isosceles triangle. Also measure the two small segments on the base. Drag a vertex around. What can you conjecture?
