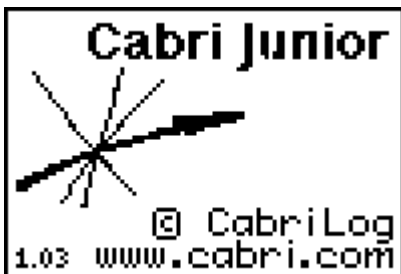


Cabri Jr. – Getting Started with Triangles

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.

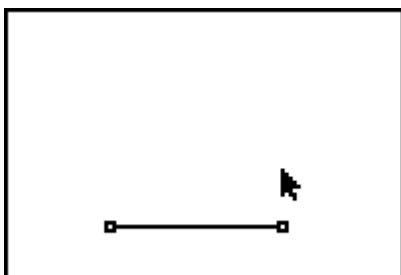


To begin the program, press any key. If a drawing comes up on the screen, press the **Y=** key (note the F1 above and to the right of the key – this program uses F1, F2, F3, F4, F5 names instead of the regular key names) and arrow down to NEW. It will ask you if you would like to save the changes. Press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

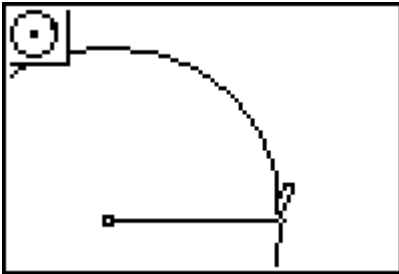
We are now ready to begin.

Part C

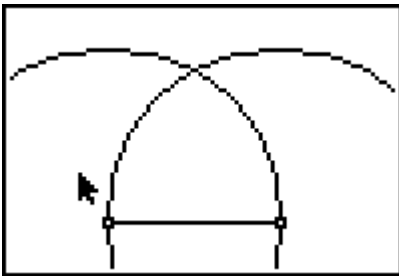
Now it is time to construct an equilateral triangle. Get a clear screen to start a new construction. Next press F2 and arrow down to Segment. Press **ENTER** when you have the pencil where you would like your segment to start and then move the pencil and then press **ENTER** again to finish the segment. Hit the **CLEAR** key to exit the segment tool.



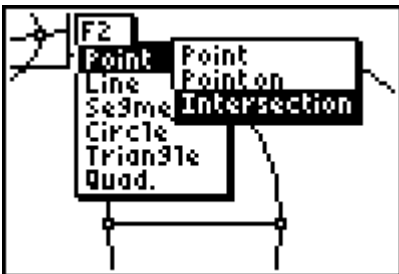
We now need to decide how to create a triangle with three congruent sides that will stay congruent even if we drag the vertices around. One way to do this is with congruent circles. Go to F2 and down to Circle. Press **ENTER**. Move the pencil to one of the endpoints of the segment and hit **ENTER**. This defines the center of the circle. Move the pencil to the other endpoint and hit **ENTER** again. This defines the radius of our circle.



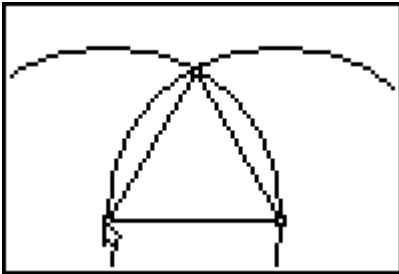
Do this again but selecting the endpoints in the opposite order. You should now have two congruent circles, both with radii the length of your segment.



Next you need to find one of the intersection points of the circles (if you cannot see an intersection point because it is off the screen you will need to drag one of the endpoints of your segment to make the segment shorter). To locate one of the intersection points, go to F2 and push the right arrow key to see your options for Point. Arrow down to Intersection and hit **ENTER**.



Move the arrow until one of the circles flashes, hit **ENTER** and then move the arrow so the other circle flashes and hit **ENTER** again. Hit **CLEAR** to end the Intersection tool. You should now have a point where the circles intersect. Now you need to construct the sides of the triangle. Go to F2 and down to Segment. Hit **ENTER** and move the pencil to one of the endpoints of your segment. Press **ENTER** and then go to the intersection point and hit **ENTER**. Now since the segment tool is still on, hit **ENTER** again to select the intersection point and then move the pencil to the other endpoint of the segment to finish the triangle.



Finally, let us hide the circles so we only see the equilateral triangle. Go to F5 and select Hide/Show. Move the arrow to select one of the circles and hit **ENTER**. Then move the arrow to select the other circle and hit **ENTER**. Then hit **CLEAR** to exit this tool. You should only see your triangle now. Measure the sides and angles to see that it is equilateral as well as equiangular. Then drag the vertices around to see that the sides lengths will change but will stay the same as the other segment lengths plus the angles will always stay 60° .