## 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 A

First create a triangle by going to the WINDOW key (F2 for this program).


Arrow down to Triangle and press ENTER. A pencil should appear on the screen. Move the pencil using the arrow keys until it is where you would like to begin your triangle. Press ENTER and then move using the arrow keys to where you would like your next vertex. Press ENTER again and then move the pencil again until you locate where you would like your final vertex. Press ENTER one last time. You should now see your triangle.


Note the picture of a triangle in the upper left corner. This shows you what tool you are presently using. Since we are done creating our triangle, press the CLEAR key to exit the tool.

Move the arrow key to one of your vertices and press the ALPHA key. A little hand should appear. Using the arrow keys, drag the vertex around to see your triangle change. Hit CLEAR when you are done moving the triangle.

Next, measure one of the angles of your triangle. To do this, push the F5 key (the GRAPH key) and arrow down to Measure and then push the right arrow to see what options you have. Arrow down to Angle and hit ENTER.


To measure an angle, you must select the vertices just like you were naming the angle, with the vertex in the middle. Select a point on your triangle that is not the vertex of the angle you are measuring and hit ENTER, then select the point at the vertex and hit ENTER, and then finally the final point and hit ENTER. Note that the points flash when the pencil gets close to them and after they have been selected. Do you see the hand on the number? If you would like to move the number over slightly, press the arrow keys and then ENTER when it is where you would like to have it.


Measure the two remaining angles.


Now it is time to find the sum of the angles. Go to F5 and down to Calculate and hit ENTER. A solid arrow should appear. Move it until it is on one of the angle measures (the number will flash). Hit ENTER then the + key to add it to the next angle. Move the arrow to the next angle measure and hit ENTER. The answer will appear with the hand tool so you can move the answer to a blank location on the screen. Press ENTER when it is in a good location.


Now we need to add this answer to the other angle to get the sum of all three angles of the triangle. Move the solid arrow over the first answer and press ENTER and then the + key. Move the arrow to the last angle measure and press ENTER. Using the arrow keys, move the answer so you can see it and it is out of the way and hit ENTER. What is the answer? Hit the CLEAR key to get out of the calculate tool.


Now move the cursor to one of the vertices of the triangle, press the ALPHA key to get the hand tool and drag the vertex around. Notice the sum of the angles does not change even though the angle measures do.

