Directions for finding Min/Max of a graph using a TI-83

1. Bring up the graph/function input screen by hitting the **Y=** button.
2. Clear any existing functions in the Y1, Y2, Y3, and so on slots by hitting the **CLEAR** button on each slot.
3. Considering that for this course, and for min/max problems in particular, we will only usually be graphing one function. Input your function carefully (i.e. check the order of operations to make sure the calculator is reading in what you want it to) into the Y1 slot.
4. Hit the **GRAPH** button to view your graph. If you cannot see the graph at all, or you cannot see your entire graph, first check whether or not you input the function correctly on the **Y=** screen. Next hit the **WINDOW** key and change the values for Xmin, Xmax, Ymax, Ymin. This will change the viewing window of your calculator screen. Change the values of Xmin, Xmax, Ymax, Ymin until you can see the parts of the graph you require. (This step can, at times, be very annoying. Sometimes it's easier to find the domain of your function and choose the Xmin, Xmax values to agree with your domain. For example, in example 3 of section 3.6, we found the domain of the function to be all x strictly between 0 and 6. So I'd make Xmin = 0 and Xmax = 6.)
5. Hit the **CALC** button (2^{nd} and then **TRACE**)
6. Scroll down to Maximum or Minimum, whichever one you require. Press **ENTER**
7. You will now be asked for a left bound. Use the arrows keys to move the cursor along the graph, and choose a point that is close to the max or min, but to the left of it. Then press **ENTER**
8. Similar to step 7, you will now be asked for a right bound. Then press **ENTER**
9. Lastly, you'll be asked for a guess. Using the arrow keys, move the cursor to the point you believe is closest to the max or min. Press **ENTER**
10. The screen should now read the x and y coordinates of the minimum or maximum.