

MAC1105

How to Use the Graphing Calculator to Find Max/Min

Using the graphing calculator to find max/min: (Below is described for the Maximum, just use the Minimum function if you need that one)

In the **Y=** function at the top, type in your given equation.

Go to **WINDOW** (if the problem specifies the window values to look at). Where the problem might say things like "x is between -2 and 2", you would then change the window to be "**XMin** -2" and "**XMax** 2". (Do the same with the y-values if provided).

Go to **GRAPH** (Do not use Zoom since we just hand set the window. If you were not given values for Window, go to ZOOM - FIT).

2nd - CALC/TRACE

You will see the options for a MAXIMUM and MINIMUM function. The question asks for Maximum, click on **MAXIMUM**. (If the question asked for Minimum, click on MINIMUM).

It will prompt you "Left Bound?" - It is asking for you to scroll the blinking dot to the *left* of the maximum hump. Hit **ENTER** once you are at a good location to the left.

It will prompt you "Right Bound?" - It is asking for you to scroll the blinking dot to the *right* of the maximum hump. Hit **ENTER** once you are at a good location to the right.

It will prompt you "Guess?" - It is asking for you to scroll the blinking dot to the *maximum* (as best as you can). Hit **ENTER** once you are very near to the top of the maximum hump.

It will now give you the X= and Y= values at the bottom of the screen for your Maximum location and value.