Graphing a Piecewise-Defined Function on a TI-83+

(There are a couple ways to do this, but this is the way I found to be the easiest.)

To graph a piecewise-defined function, each piece of the function along with the x-interval for which the piece is defined must be entered into the y(x)= screen.

The < and > keys can be found in the **2nd Test** menu:

Graph $\qquad f(x) = \begin{cases} -x + 1 & \text{if } -1 \le x < 1 \\ x^2 & \text{if } x \ge 1 \end{cases}$

> **Y=**
> (Clear functions)
>
> $y1 = (-x + 1)(-1 \le x)(x < 1)$
> $y2 = (x^2)(x \ge 1)$

Note that parentheses must be placed around each inequality statement and each piece of the restriction.

Change the graphing mode to dot rather than connected to better see the graph

> **Mode**
> Select **Dot**

Then **graph** in a standard viewing window. Zoom in to see the two functions more clearly.