

Calc Menu: value

Calculating an output value for a specific input value on a graph.

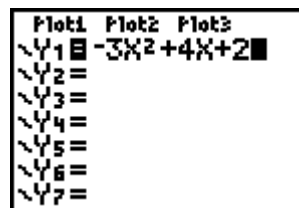
We will use the rule $P(x) = -3x^2 + 4x + 2$.

Keystrokes

Screen

Enter the function into the equation editor:

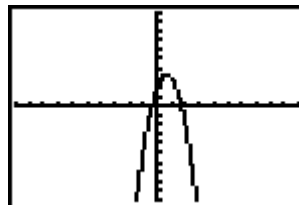
$\boxed{Y=}$ $\boxed{(-)}$ $\boxed{3}$ $\boxed{\times,T,\theta,n}$ $\boxed{x^2}$ $\boxed{+}$ $\boxed{4}$ $\boxed{\times,T,\theta,n}$ $\boxed{+}$ $\boxed{2}$



Look at the graph:

$\boxed{\text{GRAPH}}$

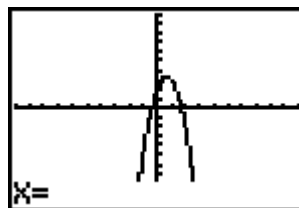
Note: you may need to adjust your WINDOW settings. We use a standard viewing window here.



Select the Calculate Value feature:

$\boxed{2\text{nd}}$ $\boxed{\text{TRACE}}$ $\boxed{1}$

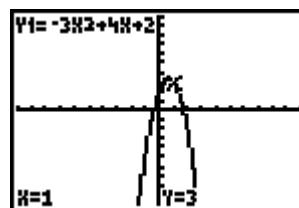
Note: The x -value is the input and the y -value is the output.



The “X=” prompt is waiting for an input value. Enter:

$\boxed{1}$ $\boxed{\text{ENTER}}$

Note: The function in use is displayed at the top left of the screen. If you have more than one function graphed on the screen, use the up $\boxed{\blacktriangle}$ and down $\boxed{\blacktriangledown}$ arrows to select the proper function and see the desired y -value.



Additional Notes:

- 1) At the $X=$ prompt you can enter numbers, letters which represent numbers, such as π or e , and/or expressions that represent a single result and do not include a variable; i.e., $\pi * \sqrt{5} / 2$
- 2) You must enter in an X -value that is between the X_{\min} and the X_{\max} of the WINDOW settings. If you do not, you will get an error message (ERR:INVALID).
- 3) The TI-83 displays the output (Y -value) for the input (X -value) entered and marks the graph with a blinking cursor. If the Y -value is not between the Y_{\min} and the Y_{\max} of the WINDOW settings, then the blinking cursor will not be seen.

More questions? Contact the **Metropolitan State University Math Center** at
651-793-1460, 651-793-1463 (Fax) or math.center@metrostate.edu.