

Graphing a Piecewise-Defined Function on a TI-92

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

The | key (2nd K) allows you to put restrictions on the value of x

The < and > symbols can be entered using 2nd < or 2nd > or from the Math menu:

2nd Math

8: Test

The ≤ and ≥ symbols can be entered using <= or >= or from the Math menu as above.

A screenshot of a TI-92 calculator screen with a purple background. The word "Graph" is on the left. The function is defined as f(x) = { -x + 1 if -1 ≤ x < 1; x^2 if x ≥ 1 }.
$$\text{Graph} \quad f(x) = \begin{cases} -x + 1 & \text{if } -1 \leq x < 1 \\ x^2 & \text{if } x \geq 1 \end{cases}$$

Diamond Y=

(Clear functions)

$$y1 = -x + 1 \mid -1 \leq x \text{ and } x < 1$$

$$y2 = x^2 \mid x \geq 1$$

Set your viewing window so its easier to see the results

Diamond Window

$$x\text{min} = -2$$

$$y\text{min} = -1$$

$$x\text{max} = 10$$

$$y\text{max} = 5$$

$$x\text{scl} = 1$$

$$y\text{scl} = 1$$

Diamond Graph