Intro to Graphing _{Classic View}

Objectives:

- Set the standard window
- Input a function using Y=
- See a graph in the standard window
- Return to the calculating screen
- Input and see graphs of a variety of functions

Set the standard window

The calculator can move the axes or change the scales just as we can when we draw a graph on paper.

IMPORTANT: The GC does not put numbers on the axes. You have to know that each tick mark in the standard window represents one unit, and that the standard window is -10 to 10 on both axes.

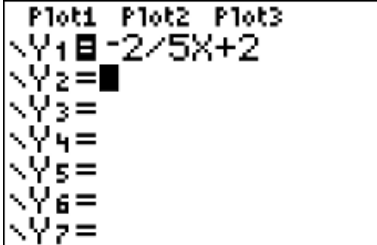**PRO TIP:** To go to the standard window quickly, press [zoom] [6]
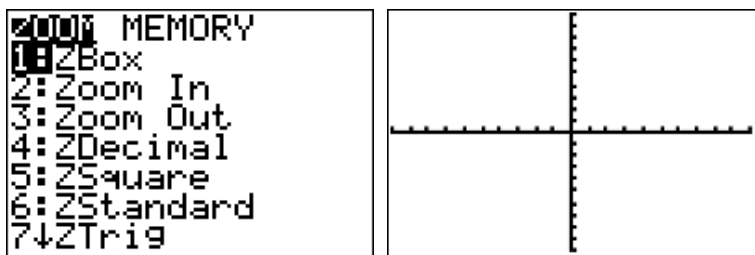
Input a function using Y=

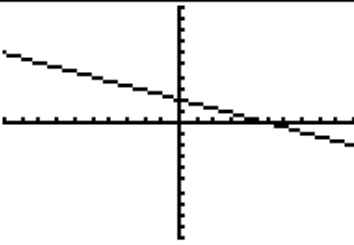**Example 1:** See the graph of $y = -\dfrac{2}{5}x + 2$.

Open the Y= page, press: [y=] .

PRO TIP: Press [clear] before typing a new function to remove all leftover characters from the past.

Type the function to be graphed: [y=] [clear] [(−)] [2] [÷] [5] [X,T,θ,n] [+] [2] [graph]

To see the graph, press [graph]

The Y= screen is: The graphing screen is:

Return to the calculating screen

To exit the graphing window and return to the calculating window,

press [clear] ,OR select QUIT, which is [2nd] [mode] (quit).
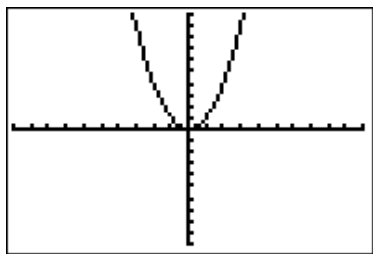
Input and see graphs of a variety of functions

**PRO TIP:** When putting functions in the Y= menu, you can use the arrows [▲] [▶] [▼] [◀] and

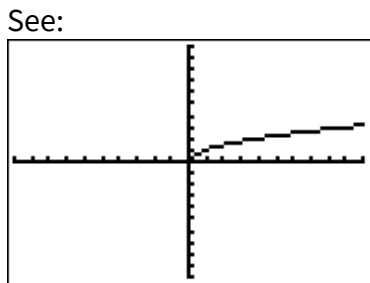the editing keys delete [del] (ins) and insert [2nd] [del] (ins). Or you can type over errors to correct them.
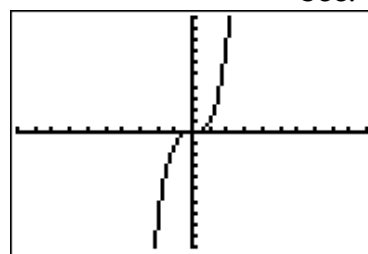
Example 2: Graph $y = x^2$.

Press: [y=] [clear] [X,T,θ,n]

[x²] [graph]

See:

Example 3: Graph $y = \sqrt{x}$.

Press: [y=] [clear] [2nd]

[x²] [X,T,θ,n] [)] [graph]

See:
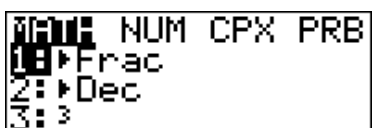
Example 4: Graph $y = x^3$.

Press: [y=] [clear] [X,T,θ,n]

[^] [3] [graph]

See:

Example 5: : Graph $y = |x| - 2$.

Absolute value is found under the MATH menu, in the NUM sub-menu:

Press: [y=] [clear] [math]

See:
```
MATH  NUM CPX PRB
1▷Frac
2:▷Dec
3: ³
```

Press: [▶]

See:
```
MATH NUM CPX PRB
1:abs(
2:round(
3:iPart(
```

Press: [enter] [X,T,θ,n] [)] [−] [2] [graph]

IMPORTANT: Be sure to close the parentheses, or you'll get $y = |x - 2|$!

See:
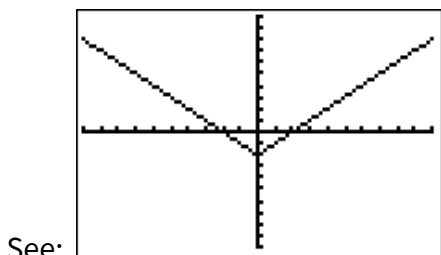
Try It!

View the graph of the following functions using a standard window.

1) $y = -2x - 7$

2) $y = -7$

3) $y = \dfrac{1}{2}x^2 + 1$

4) $y = (x-1)^2$

5) $y = \sqrt{x} - 2$

6) $y = -\dfrac{1}{2}x^3$

7) $y = |x+3|$

Solutions

1)

2)

3)

4)

5)

6)

7)