

Graphing Technology Lab

Representing Functions

Sharp EL-9900C

You can use Sharp EL-9900C graphing calculator to explore the different ways to represent a function.

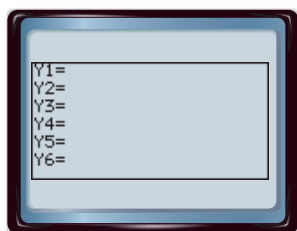
ACTIVITY

Graph $f(x) = 2x + 3$ on the Sharp EL-9900C graphing calculator.

Clear your calculator first.

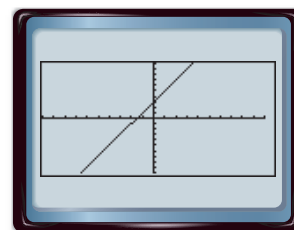
KEYSTROKES: $\boxed{2\text{ndF}}$ $\boxed{[\text{OPTION}]}$ $\boxed{[\text{ALPHA}]}$ $\boxed{[E]}$ $\boxed{2}$ $\boxed{[\text{CL}]}$ $\boxed{[\text{ENTER}]}$

Step 1 Press $\boxed{Y=}$.



Step 2 Type $2 \boxed{[X/\theta/T/n]}$ $\boxed{+}$ $3 \boxed{[\text{GRAPH}]}$ in the entry line.

To display the graph in a standard viewing window, press $\boxed{[\text{ZOOM}]}$ $\boxed{5}$.



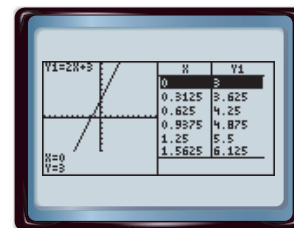
$[-10, 10]$ scl: 1 by $[-10, 10]$ scl: 1

Step 3 Represent the function as a table.

KEYSTROKES: $\boxed{2\text{ndF}}$ $\boxed{[\text{TBLSET}]}$ $\boxed{[\text{AUTO}]}$ $\boxed{[\text{TABLE}]}$

X	Y1
1	5
2	7
3	9
4	11
5	13
6	15

Step 4 Press $\boxed{[\text{GRAPH}]}$ to see the graph. Press $\boxed{2\text{ndF}}$ $\boxed{[\text{SPLIT}]}$ when on the graph screen to see both on one screen. Enter a new equation in the $\boxed{Y=}$ screen to modify the graph and table.



Analyze the Results

Graph each function. Make a table of five ordered pairs that also represents the function.

1. $g(x) = -x - 3$

2. $h(x) = \frac{1}{3}x + 3$

3. $f(x) = -\frac{1}{2}x - 5$

4. $f(x) = 3x - \frac{1}{2}$

5. $g(x) = -2x + 5$

6. $h(x) = \frac{1}{5}x + 4$