



Graphing Calculator Investigation

A Preview of Lesson 4-3

Casio Algebra FX 2.0

Graphs of Relations

You can represent a relation as a graph using a Casio Algebra FX 2.0 graphing calculator.

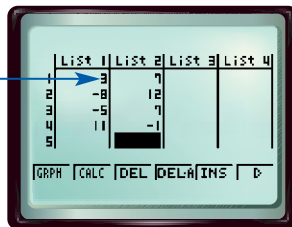
Graph the relation $\{(3, 7), (-8, 12), (-5, 7), (11, -1)\}$.

Step 1 Enter the data.

- Enter the x -coordinates in L1 and the y -coordinates in L2.

KEYSTROKES: **MENU** 2 3 **EXE** -8 **EXE** -5
EXE 11 **EXE** **▶** 7 **EXE** 12 **EXE** 7
EXE -1 **EXE**

The first ordered pair is (3, 7).



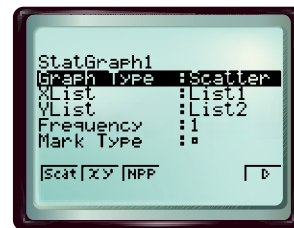
Step 2 Format the graph.

- Turn on the statistical plot.

KEYSTROKES: **MENU** 2 **F1** 4 **F1** **ESC**

- Select the scatter plot, L1 as the Xlist and L2 as the Ylist.

KEYSTROKES: **F1** 5 **▼** **F1** **▼** **F1** 1
EXE **▼** **F1** 2 **EXE** **ESC**

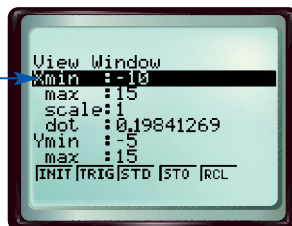


Step 3 Choose the viewing window.

- Be sure you can see all of the points.
 $[-10, 15]$ scl: 1 by $[-5, 15]$ scl: 1

KEYSTROKES: **SHIFT** [V-Window] -10
EXE 15 **EXE** 1 **EXE** **▼** -5 **EXE** 15
EXE 1 **EXE** **ESC**

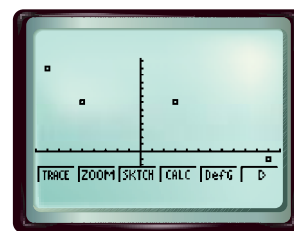
The x -axis will go from -10 to 15 with a tick mark at every unit.



Step 4 Graph the relation.

- Display the graph.

KEYSTROKES: **F1** 1



$[-10, 15]$ scl: 1 by $[-5, 15]$ scl: 1

Exercises

Graph each relation. Sketch the result. 1-4. See pp. 253A-253H.

- $\{(10, 10), (0, -6), (4, 7), (5, -2)\}$
- $\{(-4, 1), (3, -5), (4, 5), (-5, 1)\}$
- $\{(12, 15), (10, -16), (11, 7), (-14, -19)\}$
- $\{(45, 10), (23, 18), (22, 26), (35, 26)\}$
- MAKE A CONJECTURE** How are the values of the domain and range used to determine the scale of the viewing window? See margin.

www.algebra1.com/other_calculator_keystrokes