



# Graphing Calculator Investigation

A Preview of Lesson 4-3

## Graphs of Relations

Casio CFX-9850GB Plus

You can represent a relation as a graph using a Casio CFX 9850GB Plus graphing calculator.

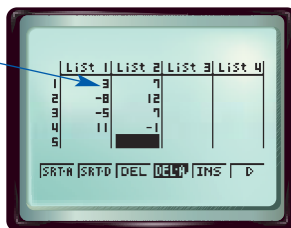
Graph the relation  $\{(3, 7), (-8, 12), (-5, 7), (11, -1)\}$ .

### 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: **F1** **F4** **F1** **EXIT**

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

KEYSTROKES: **F6** **▼** **F1** **▼** **F1** **▼** **F2**  
**EXIT**



### 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** **F3** -10 **EXE** 15 **EXE**  
 1 **EXE** -5 **EXE** 15 **EXE** 1 **EXE** **EXIT**

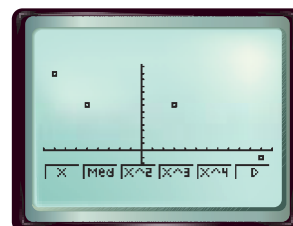
The  $x$ -axis will go from -10 to 15 with a tick mark at every unit.



### Step 4 Graph the relation.

- Display the graph.

KEYSTROKES: **F1** **F1**



$[-10, 15]$  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](http://www.algebra1.com/other_calculator_keystrokes)