Scatter Diagrams on the TI-89

Before you begin, you should clear all stored functions on your calculator.

Diamond Y=
F1: 8 Clear Functions
Enter

Creating New Folders to Store Data

It’s a good idea to create separate folders for your data so you can access it easily later on, plus it’s easier to delete when you no longer need it. Follow these steps:

From the Home Screen
F4 Other
B: New Fold (or arrow down)
Key name for folder - Math
Enter

Drawing the Scatter Diagram

Let’s enter these data points:

<table>
<thead>
<tr>
<th>x</th>
<th>0</th>
<th>0</th>
<th>5</th>
<th>5</th>
<th>10</th>
<th>15</th>
<th>20</th>
<th>25</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>71</td>
<td>21</td>
<td>01</td>
<td>51</td>
<td>71</td>
</tr>
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</tr>
</tbody>
</table>

Apps
6: Data/Matrix Editor
3: New (Use Open to retrieve previously saved data)
(Use Current to continue using the present set of data)

Type: Data (Arrow Down to the next line)

Folder: Arrow Right then highlight Math if it’s not already showing. Then Enter (Arrow Down to the next line)

Variable: Type Example1 (Use a name that will help you remember the problem. Remember no spaces and avoid names that may already be used by the calculator.)
Enter
Enter

Key the x values in c1 (column 1) and the y values in c2 (column 2). Press Enter after each entry to move the cursor to the next row, same column.

F2 Plot Setup
F1 Define

Plot Type: Scatter (Arrow Down to the next line)

Mark: Box (Arrow Right to show other marks that can be used when the graph is drawn) (Arrow Down to the next line)

x: Key c1 (meaning the x values are in column 1) (Arrow Down)
y: Key c2 (Arrow Down)
Freq and Categories? **No**

Enter

**Set the Graphing Window**

You can set the viewing window yourself or let the calculator select the minimum and maximum values so that all of the data points will display in the viewing window.

**Manually**

Diamond Window

- $x = [-5, 30]$  
- $y = [0, 25]$  
- $\text{xscl} = 5$  
- $\text{yscale} = 5$

Diamond graph

The scatter diagram is displayed.

**ZoomData**

Diamond Window

F2 Zoom

9 ZoomData  

Calculator will set the viewing window so all data points are displayed.

The scatter diagram is displayed.