Regression on the TI-83
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Keys are written between brackets [ ].
Menu selections are written in italics.

1. Enter the data points.
   – Data sets are best entered in the Stat Editor.
   – Press [STAT] and select 1:EDIT. Press [ENTER]. Your screen should look like this:

```
<table>
<thead>
<tr>
<th>L1</th>
<th>L2</th>
<th>L3</th>
<th>L1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L4(0) =</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

   – Clear any existing data in the L1 and L2 columns by using the arrow keys to move the highlight over L1 and pressing [CLEAR] [ENTER]. Then do the same to clear the L2 column.
   – Enter your data in the appropriate L1 or L2 column.
   – If the L1 or L2 columns are not present then move the cursor to highlight the top of the blank column and press [2nd] [L1] or [2nd] [L2].
   – When finished press [2nd] [QUIT].

2. Plot the data (this step may be skipped if desired).
   – Turn on a Stat Plot and configure it to plot the data.
   – Press [2nd] [STAT PLOT]. You will see this screen:

```
| PLOT1...Off |
| L1: L1  L2: L2 |
| 2: Plot2...Off |
| L1: L3  L2: L4 |
| 3: Plot3...Off |
| L1: L1  L2: L2 |
| 4: PlotsOff |
```

   – Select 1:PLOT1 with the arrow keys and press [ENTER]. Use the arrow and [ENTER] keys to edit your next screen to look like this:

```
| PLOT1 |
| Type: L1 |
| Xlist: L1 |
| Ylist: L2 |
| Mark: □ |
```

   – The selections are: On, scatter plot, L1, L2, □.
To finish the graph press [ZOOM] and select 9:ZoomStat.
Your data will be automatically centered and graphed like this:

![Graph Image]

3. Perform the regression calculation.
   – Press [STAT] and RightArrow to CALC.
   – For a linear regression select 4:LinReg(ax + b) and press [ENTER].
   – LinReg(ax + b) is now pasted to the home screen. You must complete the command before pressing [ENTER].
   – Press [VARS], Y-VARS, 1:Function, 1:Y1 to paste the equation name.
   
   Your regression command should now look like this:

   ![Command Image]

   If it does, press [ENTER].
   – Now your screen should look something like this:

   ![Regression Image]

   The coefficients of a linear equation are displayed. This regression equation has already been pasted into the equation editor (into Y1) and is ready to be graphed.
   – Press [GRAPH].

   ![Graph with Coefficients Image]

   – Press [CLEAR] and [GRAPH] to toggle between views.