

## Regression on the TI-89

---

Written by Jeff O'Connell – [joconnell@ohlone.edu](mailto:joconnell@ohlone.edu)

Ohlone College

<http://www2.ohlone.edu/people2/joconnell/ti/>

Steps:

- 1) Press [APPS] and select [6: Data/Matrix Editor], then select 3: [New...]
- 2) You get a menu where you should enter the following:
  - Type* - select Data
  - Folder* - select Main
  - Variable* - enter a name for the list, for example, *abc*.Once this information has been entered, press [ENTER]
- 3) Enter the x-coordinates in the c1 column and the y-coordinates in the c2 column.
- 4) Once the data has been entered press [F5 CALC] and you will get a menu where you should enter the following:
  - Calculation Type* – Select the regression model you wish to choose according to the table below.
  - x* – enter c1
  - y* – enter c2
  - Store RegEQ to* – this allows you to store the equation so that it may be graphed. For example, you can select  $y1(x)$  and this will store the answer in the graph area as equation  $y1(x)$ .
  - Use Freq and Categories* – Select No.
- 5) Press enter to get the equation.

<b><i>Regression Model</i></b>	<b><i>Form of equation</i></b>
3: CubicReg	$y = ax^3 + bx^2 + cx + d$
4: ExpReg	$y = ab^x$
5: LinReg	$y = ax + b$
6: LnReg	$y = a + b \ln x$
8: PowerReg	$y = ax^b$
9: QuadReg	$y = ax^2 + bx + c$
A: QuartReg	$y = ax^4 + bx^3 + cx^2 + dx + e$
B: SinReg	$y = a \sin(bx + c) + d$
C: Logistic	$y = \frac{c}{1 + ae^{-bx}}$