

Linear Regression on TI Nspire Calculators

Given that Alberta Ed has placed some rather heavy demands on the ability of students to *precisely* calculate slopes and y-intercepts based on graphed data for numerical response questions, it has become necessary to know how to do linear regressions on a graphing calculator.

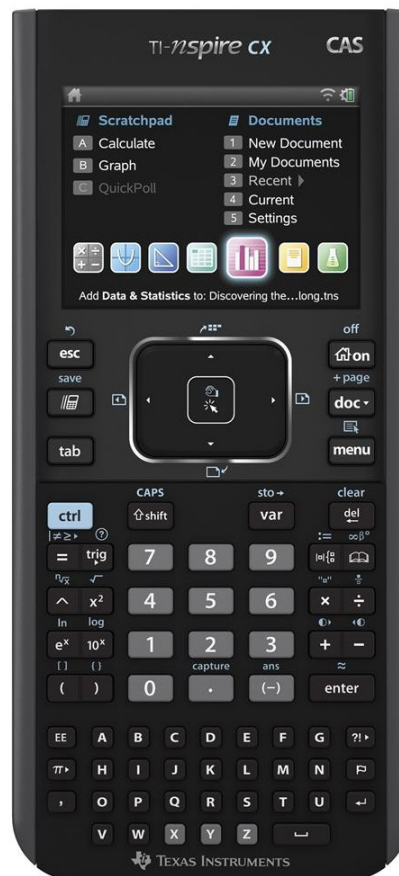
There are several methods and processes I have learned. This is my explanation based on several of those. If you do it another way and it works, that's fine also.

Section A: Start a New Document & Enter Data

1. From the Home screen **on** choose **New Document > 4.Add Lists & Spreadsheet**.
2. Scroll up to the very top row (where the A, B, C, etc is shown). It will be helpful if you give each column a title up here, so type in something short and simple with no spaces. The simplest is to call column A \rightarrow **x** and column B \rightarrow **y**. Use **tab** to jump to the next column if necessary.
3. Now go back down to the actual cells and start typing in all your x and y-axis values.

Section B: Create a Linear Graph and Get $y = mx + b$

1. Insert a new page by hitting **ctrl** and then **doc** and choosing **5: Add Data & Statistics**
2. On the graph style page that appears you will need to move to the x and y axis and click to choose which variable to put on each axis.
3. You should now have a linear graph. To get the formula in the form of $y = mx + b$ (where m is the slope and b is the y-intercept) hit your magic **menu** button, then choose **4: Analyze > 6: Regression > 1: Show Linear (mx+b)**



Section C: Use Your Numbers (Depends on question)

This section is optional depending on what the question asks. You will usually need to do at least something with your slope.

1. Insert a new page by hitting **ctrl** and then **doc** and choosing **1: Add Calculator**.
2. You can now do any calculations you might need to do. To use numbers like your slope, don't bother going back to the previous page to get them... they're all stored as variables now. To use one, hit the **var** key and then choose stuff like
stat. m = slope
stat. b = y-intercept