Regression for proportionality constant

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The G calculated below is the coefficient for best fit (least squares estimate of the function $y = GX$ through points entered in lists L1 and L2 on the TI83.

We want to enter a 1 line program:

$$\Sigma xy \Sigma x^2 \to G.$$

The steps are as follows.

1. Press the PRGM key. press the right arrow twice (to put cursor on NEW) press enter

2. Press enter again. The screen will show NAME =

Type PR then hit ENTER

Don't touch the alpha, you are automatically in caps lock.

3. Now type the following sequence

VARS 5 (arrow right to Σ) 5

The first 5 put you in the stats menu; the second selected Σxy.

4. Continue by pressing $\div$

5. Then, VARS 5 (arrow right to Σ) 2

The 5 put you in the stats menu; the 2 selected Σx^2.

6. Now type STO Alpha G ENTER

We are storing the answer in register G; I just happened to choose G. Any letter would do.

7. 2nd QUIT

Data entry: Enter data as we did in class into lists L1 and L2. There is a good description at the site labeled data entry on the Algebra Initiative web page. Or you can type in:

http://www.stetson.edu/ mhale/teach/ti83.htm