## Linear Regression Equation: Best Line of Fit

Graphing Calculator

A linear regression equation is the line of best fit for bivariate data.
Carnegie text book (M1-167) explains the calculations made by your graphing calculator.

CAPITAL LETTERS = that button or title on your calculator.

1. STAT (your cursor will be on Edit; 1: edit); ENTER.
2. Delete any pre-existing lists. Use cursor and DEL.
3. The independent values should be listed in L1.
4. The dependent values should bear listed in L2.
5. To input: put cursor on L1 list. Type first x value, ENTER. Repeat.
6. Use cursor to move to L2. Type in first y value, ENTER. Repeat.
7. 2ND; QUIT. This takes you back to an open screen.
8. STAT; RIGHT ARROW to CALC. DOWN ARROW to LINREG (ax+b)
9. ENTER: you will see y = ax + b. Push ENTER one more time.
10. a = slope; b = y-intercept

11. For newer calculators, after arriving at LINREG (ax+b), DOWN ARROW to CALCULATE. Push ENTER. Then you will see your slope and y-intercept.

12. From this you form your linear regression equation: y = ax+b. You may now calculate additional y values from x values, or x values from y values.


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