

## How to Use the TI-89 to Perform Regression Analysis

First enter the data as described in *How to Use the TI-89 to Find Basic Summary Statistics* with the exception that the data must be entered into two columns. Enter the explanatory variable into one column and the response in the other, taking care to remember which column corresponds to which variable.

We will use the following data for the examples:

X: 1 3 4 5 8 9 13  
Y: 2 5 8 9 15 19 21

After entering the data your screen should look like the following:

F1+ Tools	F2 Plot Setup	F3 Cell	F4 Header	F5 Calc	F6+ Util	F7 Stat
DATA						
	c1	c2	c3			
1	1	2				
2	3	5				
3	4	8				
4	5	9				
r1c1=1						
MAIN      RAD AUTO      FUNC						

Choose F5 (Calc), change the Calculation Type box to say LinReg, enter the column name of the explanatory variable (c1 in this case) in the box labeled X and the response variable (c2 here) in Y. You have to manually type in the column names using the alpha key to access the alphabetical characters. Your screen should look like the following:

main\xyz Calculate	
Calculation Type..	LinReg →
X .....	c1
Y .....	c2
Store ResEQ to .....	none →
Use Freq and Categories? .....	NO →
Y*1 .....	
Category .....	
Include Categories .....	
Enter=SAVE      ESC=CANCEL	
MAIN      RAD AUTO      FUNC	

After you press the enter key (perhaps twice depending on how you entered the column names) you should get the following output:

F1+ Tools	F2	F3	F4	F5	F6+ F7
STAT VARS					
DATA					
y=a·x+b					
	a	=1.712465			
	b	=-.766289			
1	corr	=.977675			
2	R <sup>2</sup>	=.955849			
3					
4					
r1c1=1					
Enter=OK					
MAIN      RAD AUTO      FUNC					

For more detailed information visit Texas Instruments TI-89 website at <http://education.ti.com/us/product/tech/89/features/features.html>

