

Linear Regression with the TI

(copy 5)

Task	TI 83 & 83 ⁺	TI 86
Starting	1^{st} You need to clear any functions you have for the TI83 & 83⁺ Press [Y=] [CLEAR] and for TI86 Press [GRAPH] [F1] (y=) [CLEAR] [EXIT] 2^{nd} You need to choose an appropriate window for your data and then quit or exit.	
Fill Lists	[STAT] [1] (EDIT)	[2 nd] [+] (STAT) [F2] (EDIT)
Clear Lists	Move to top of list (List Name) using the up arrow	[$\hat{\wedge}$] [CLEAR] [ENTER]
Fill Lists (cont)	Type in values for L1 and L2 [2 nd] [MODE] (QUIT)	Type in values for xStat, yStat and fStat (type 1 for each fStat value) [2 nd] [EXIT] (QUIT)
Scatter Plot	Press [2 nd] [Y=] (STAT PLOT) [1] [ENTER] (ON) [2 nd] [MODE] (QUIT) [GRAPH]	Press [2 nd] [+] (STAT) [F3] (PLOT) [F1] (PLOT1) [ENTER] (ON) [2 nd] [EXIT] (QUIT) [GRAPH] [F5] (GRAPH)
Calculate LinReg	Press [STAT] [⇒] (CALC) [4] [ENTER]	Press [2 nd] [+] (STAT) [F1] (CALC) [F3] (LinR) [ENTER]
Window	LinReg $y = ax + b$ $a = .2402037351$ $b = 8.717385399$ $r^2 = .9516135878$ $r = .9755068364$	LinReg $y = a + bx$ $a = 8.717385399$ $b = .2402037351$ $corr = .9755068364$ $n = 6$
Diagnostic	TI 83 & TI 83⁺ If your window does not show: $r^2 = .9516135878$, $r = .9755068364$ It means your diagnostic is turned off. 1. [2 nd] [0] (CATALOG) 2. then press [X ⁻¹] and use [\downarrow] to move down the list until you find DiagnosticOn . 3. Press [ENTER] to paste this instruction to the home screen and press [ENTER] a second time to set the mode. (leave the diagnosticOn)	
Graph	Press [Y=] [VARS] [5] [⇒] [⇒] (EQ) [1] [GRAPH] Or Press [STAT] [⇒] (CALC) [4] [VARS] [⇒] (Y-VARS) [1] (Y ₁) [ENTER] [ENTER] [GRAPH]	Press [2 nd] [ENTER] [2 nd] [ALPHA] [0] (y) [1] [ENTER] [GRAPH] [F5] (GRAPH)
Evaluate/Predict In Graph Window	Press [2 nd] [TRACE] (CALC) [1] You'll see X = in lower left corner, type in values for each prediction and press [ENTER]	Press [2 nd] [+] (STAT) [MORE] [F1] (FCST) Move the cursor to either x= or y = and type in given value. To solve move cursor to opposite y or x [F5] (SOLVE) [Exit]
	In each case check that Type is the Scatter Plot (the 1 st picture) xlist and ylist correspond to your entered lists the Mark is the box	
	When you have completed all your regressions be sure to turn off your Scatter Plot:	
Turn off Scatter Plot	TI 83 & 83 ⁺ [y=] [$\hat{\wedge}$][ENTER] [\downarrow]	TI86 [GRAPH] [F1] (Y=) [$\hat{\wedge}$](PLOT1) [ENTER] [\downarrow] (y ₁)