Using regression functions from the TI-92.

Reference: Essential Advanced General Mathematics
Chapter 3 Variation; Section 3.3 Fitting Data.

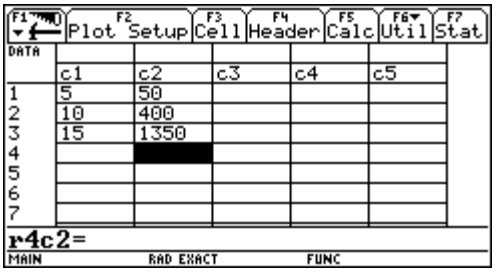
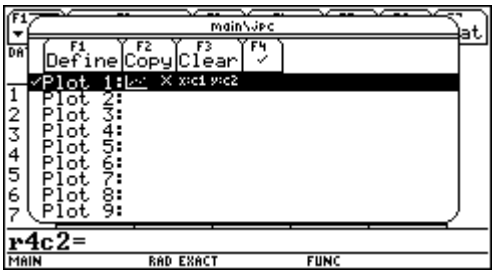
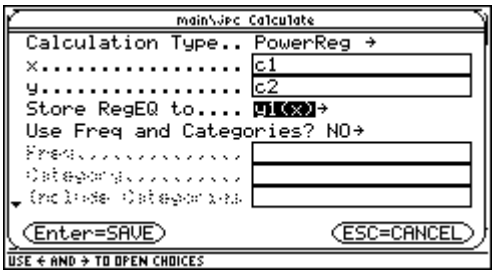
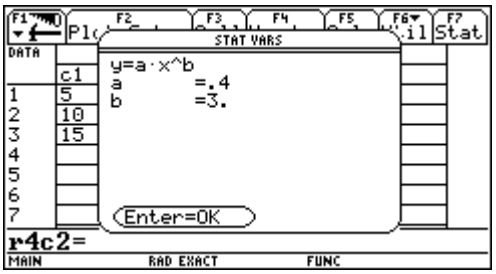
Technology functions: **CubicReg; ExpReg; LinReg; LnReg; PowerReg; QuadReg; QuartReg; SinReg**

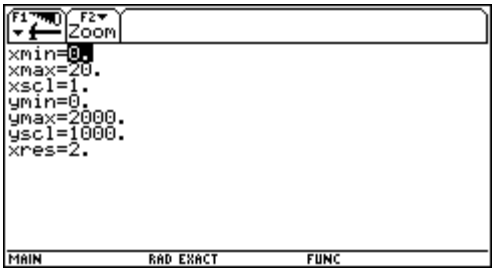
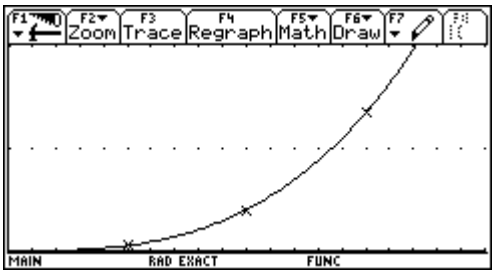
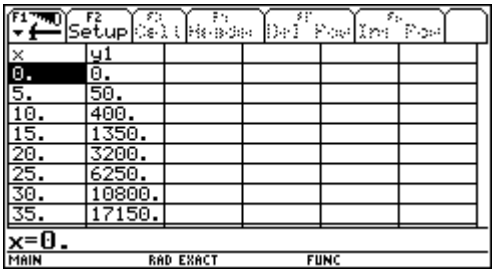
Variation has several possible types of equations. The various regression functions of the TI-92/TI-92 Plus allow experimentation to find the graph of best fit. This activity will demonstrate the **Power Regression (PowerReg)** function.

Power Regression:

1. Use the **PowerReg** function to find a regression curve to the following data:

Days (*D*)	5	10	15
Number of calls (*N*)	50	400	1350

Using **Data/Matrix** editor, enter data into **c1** and **c2**	
Store data into **Plot 1**	
F5 Calculation type ..**8.PowerReg** x .....**c1** y.....**c2** Store RegEQ to ...**y1(x)**	
enter	

Set window as shown	
♦**GRAPH**	
Compare table of values of graph with original points.	

This same procedure can be used with any of the above regression functions.

Students should still be encouraged to examine the trend of the table to help focus on appropriate functions. (See text for suggestions.)

