

P.4 Fitting Models to Data

When given a table of data or a set of points, it is important to realize that many times there is an equation that will closely fit those points. When we find that equation, we are finding the *model* for that data.

Now turn on your calculator, and press the following

keys:

STAT

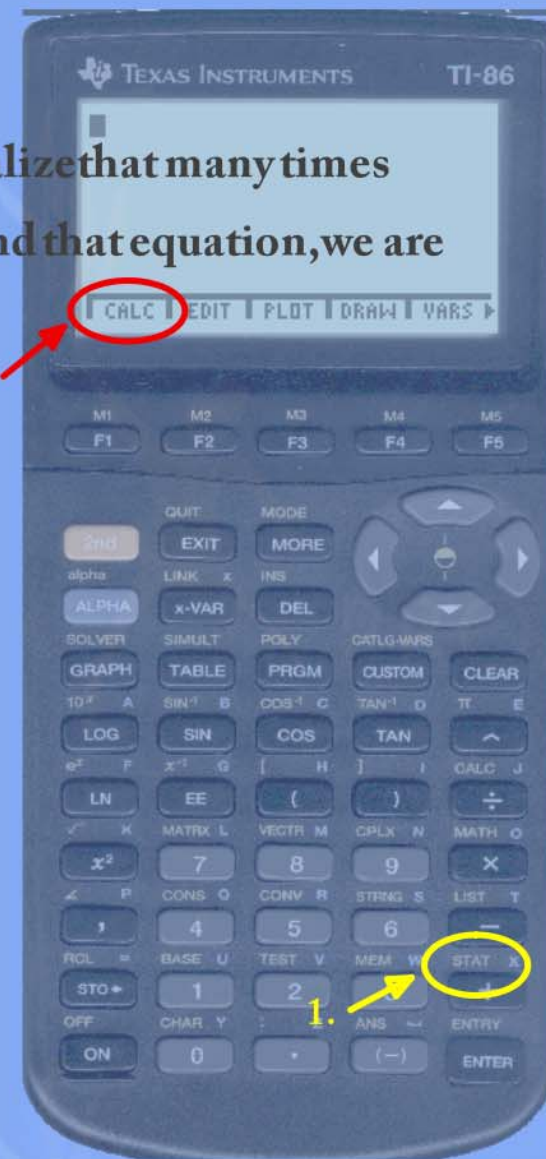
CALC







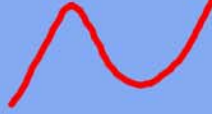

and then look at the different types of regressions.

(We will not use OneVa and TwoVa - those are one variable and two variable statistics lists you may use in statistics class.)

Here, you should write down each type and "define" it:

(Be sure to press "more" twice to see them all!)



1. Lin 
2. Ln 
3. Exp 
4. Power $X^{^?}$
5. Sin 
6. LgSt - logistic 
7. P2 - poly of degree 2 (Quad) 
8. P3 - poly of degree 3 (cubic) 
9. P4 - poly of degree 4 (quartic) 
10. StReg- **Store Regression** - stores the equation

Remember to check out the general "shape" of the points when plotted to determine what type of regression to use (if not specifically told which type).

Examples: pg. 33 #1-4

#3

#1

Linear

No #4
Relationship

#2

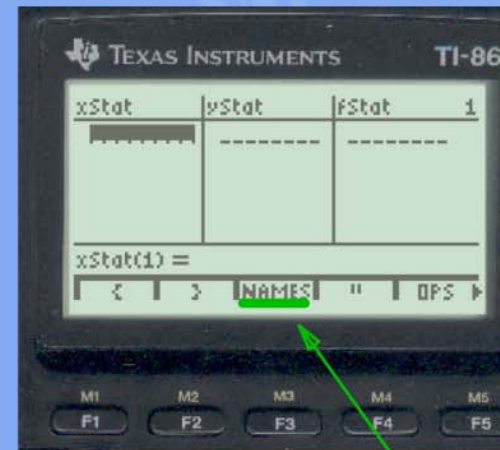
Trigonometric

Quadratic

Need a refresher on entering scatterplots into your calculator?

Here are the steps for the TI-86:

1. STAT
2. EDIT
3. Your calculator should now look like this:
4. You can now start entering data in the xStat column and the yStat column.



When computing the regression:

1. STAT
2. CALC
3. Choose regression type and then type (xStat, yStat)

You'll find these list names here.

**If you need more help with scatter plots, here are instructions for
the TI-83, 85, 86, and 89:**



Homework:

P.4 #