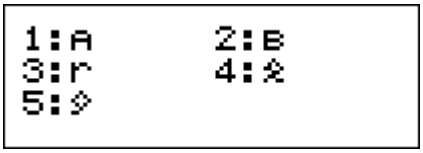
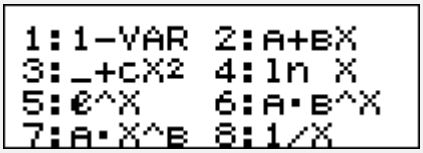
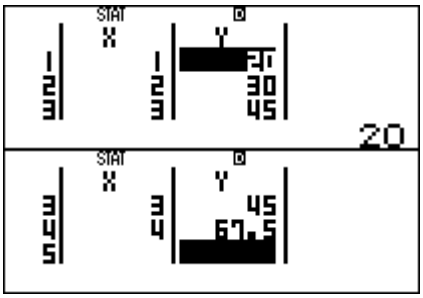
Module 6: Examples of functions from geometry

Part B – How strong is the nonlinear relationship

Most regression models include a correlation coefficient (r). This value helps you determine the strength and direction of a relationship.	
Here are all the types of regression models that are built in. 2: A + BX- Linear Regression ~~3: _ + CX^2 (A + BX +CX^2) Quadratic Regression-~~ Does not include r. 4: ln X (A + B*ln X)- Natural Log Regression 5: e^X (A*e^{BX})- Exponential base e Regression 6: A*B^X (A*B^X)- Exponential Regression 7: A*X^B (A*X^B)- Power Regression 8: 1/X (A + B/X)- Inverse Regression	

Choose a model that best fits the data set you have been given and enter the values. This example will look at bacterial growth using an exponential model. Choose [6].

X	Y
1	20
2	30
3	45
4	67.5



To see the strength of this relationship press [AC] [SHIFT] [1] [5] [3] [=].

The correlation coefficient is only one part of determining the fitness of a model and should be used with a graph of the data set.