

Regression Analysis on the TI-85 Calculator

- First:** Preparing the **TI-85**
 Clear the Statistics Lists
 [STAT] [F2] (EDIT)
 [ENTER] [ENTER]
 [F5] (CLRxy)
- Second:** Entering the Data
 [STAT] [F2] (EDIT)
 [ENTER] [ENTER]
 Enter the x-coordinate data into $x_{1,2,3...} =$
 Enter the y-coordinate data into $y_{1,2,3...} =$
 [EXIT] [EXIT]
- Third:** Regression Analysis on the **TI-85**
For Linear Analysis:
 [STAT] [CALC] [ENTER] [ENTER] [F2] (LINR)
 Display should be LinR, a =, b =, corr =, n =
 Equation: $y = bx + a$, where b = slope, a = y-intercept,
 n = number of pairs of x,y data, and corr = correlation coefficient
For Logarithmic Analysis:
 [STAT] [CALC] [ENTER] [ENTER] [F3] (LNR)
 Display should be LnR, a =, b =, corr =, n =
 n = number of pairs of x,y data, and corr = correlation coefficient
 Equation: $y = a + b \ln(x)$
For Exponential Analysis:
 [STAT] [CALC] [ENTER] [ENTER] [F4] (EXPR)
 Display should be ExpR, a =, b =, corr =, n =
 n = number of pairs of x,y data, and corr = correlation coefficient
 Equation: $y = ab^x$
For Power Analysis:
 [STAT] [CALC] [ENTER] [ENTER] [F5] (PWRR)
 Display should be PwrR, a =, b =, corr =, n =
 n = number of pairs of x,y data, and corr = correlation coefficient
 Equation: $y = ax^b$
- Fourth:** Graphing the Data
 Delete Equations in Graph Mode
 [GRAPH] [F1] (y(x)=) [F4] (DELf) [EXIT] [EXIT]
 Set Graph Range
 [GRAPH] [F2] (RANGE)
 xMin = (set to slightly lower than the smallest x value)
 xMax = (set to slightly higher than the largest x value)
 xScl = (set scaling appropriately)
 yMin = (set to slightly lower than the smallest y value)
 yMax = (set to slightly higher than the largest y value)
 yScl = (set scaling appropriately)
 [EXIT]
 Graph the Data (can only be done after calculating a regression)
 [STAT] [DRAW] [F4] (DRREG)
 Adjust range as necessary