

Friday, May 19, 2017
2:52 PM

Regression

r → correlation coefficient
 strong/weak/no correlation
 positive/negative

2ND 0
 DiagnosticOn
 ENTER

r^2 → coefficient of determination
 *use when comparing to a quadratic model

STAT 1: edit
 enter x as L1, y as L2

STAT → CALC

4: LinReg Linear
 5: QuadReg Quadratic
 0: ExpReg Exponential
 A: PwrReg Power

VARS → Y-VARS 1: Function 1: Y, ENTER

To view data graphically,
 ① Turn Scatter plot ON.
 ② Press ZOOM 9

To view table, 2ND GRAPH
 interpolation: prediction inside domain
 extrapolation: outside domain

To find residuals,

STAT 1: Edit

Highlight L3 and enter $Y_1(L_1)$, then press ENTER

L1	L2	L3
4352		---
5628		---
6279		---
6784		---
7588		---
8282		---
8871		---

L3 = Y1(L1)

This is your predicted value.
 L_2 is your actual.

Highlight L4 and enter $L_2 - L_3$, then press ENTER

L2	L3	L4	4
4052	3779		
5628	4594		
6278	5410		
6784	6225		
7608	7040		
8292	7856		
8871	8671		
L4 = L2 - L3			

L4 is your residual value

Residual plots show the difference between the actual and predicted.

Linear Models have scattered residual plots.

Non-linear models show a pattern.