Residual Plots

Residual value = Is the vertical distance a point is from the line or curve of best fit.

Steps to find Residuals on the Graphing Calculator:

Assuming you have data in L1 and L2
Create a line of best fit. (2^{nd} Y= , turn STAT PLOT on, ZOOM-Stat)
(Stat Calc - LinReg L1, L2, Y1)

Go back to STAT + Enter to get to L1 and L2 lists. Then go to the top of L3
Use the arrow keys.

2nd Stat to get to LIST
Go down to RESID and hit enter twice and both positive and negative numbers appear.

A negative number means that the point is below the curve of best fit.
The number 0 would mean that the point is on the line of best fit.
A positive residual means that the point is above the curve of best fit.

Steps to create a Residual Plot

Now to create a RESIDUAL plot, we
Go to 2nd PLOT by pressing 2nd Y=
Turn Stat plot 2 on but remember to use L1 and L3
Change the dot style.

Then select ZOOM STAT.

To find the average residual you:
On a clear screen
MATH - NUM - abs(
2nd 3 for L3
and STO in L4
abs = absolute and this makes all your numbers in L3 positive.
Now take the average of L4
2nd STAT --> MATH --> MEAN
MEAN(L4) = This number = the average distance from
the line of best fit.