**Linear Regression Project**

* *I can identify independent (x) and dependent (y) variables to correctly set up a scatterplot in the calculator.*
* *I can generate a correlation coefficient (r) using the calculator.*
* *I can create a linear regression equation from a table of data.*
* *I can apply the linear regression equation to make predictions for new data.*

1. Gather data on two variables. (Use your own or use teacher-provided data.)
2. Enter the data in your calculator using the Lists & Spreadsheet option.
3. Begin your scatterplot using Control + Doc to get the Add Data & Statistics option.
4. Label your x & y axis in the calculator to create your scatterplot.
5. Draw an accurate sketch of your scatterplot onto graph paper to attach to your 4 square. Title the graph, label the x and y axis and include your line of best fit.
6. Create your linear regression equation by pressing Menu, Analyze, Regression, Show Linear (mx+b)
7. Find your correlation coefficient (r) by going back to your data in Lists and Spreadsheet and pressing Menu, Statistics, Stat Calculations, Linear Regression (mx+b). Click on your independent variable in the X List and your dependent variable in the Y List then click ok to display slope (m), y-intercept (b) and correlation coefficient (r).
8. Create your four-square with your data (see sample on back). Be neat and use color!