**Pi Linear Regression Activity**

**Materials**

* String
* Ruler
* Different sized circular objects
* TI 83/84 Graph Families

Have the students work in pairs. The students get one circular object per pair. Have the students measure the circumference and diameter of the object with the string. Measure the lengths of the strings. Come to the board and put the length you found for the diameter and the circumference in a chart. Enter the lengths for diameter in L1 of the calculator and enter the lengths for circumference in L2 of the calculator. Go to 2nd Stat Plot and turn on the first plot. Assign the Xlist to L1 and the Yllist to L2. Then hit graph. The points of (Diameter, Circumference) are plotted on the graph. Hit 2nd Quit. Go to Stat, and then go over right to Calc. Go down to LinReg(ax+b). You should see “LinReg(ax+b)” on your screen. Go to 2nd List hit 1: L1 then the comma then 2nd List 2:L2. This should then give the y=ax+b equation with the values of ‘a’ and ‘b.’ Then fill in the values into the Y= equation so the line of best fit is graphed. The students should see that the slope is pi!