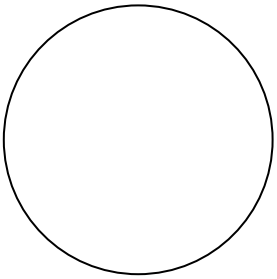
Name_____

APPROXIMATION OF π

1. Label the circumference and diameter of this circle.



2. On your circle, measure the diameter and circumference. Decide as a class on the units of measurement and accuracy of measurement.

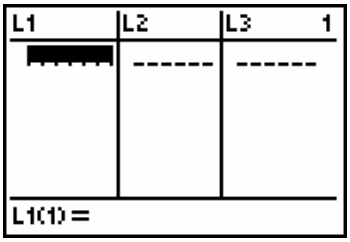
   d = _____ c = _____

3. Make a table and record all of the class' values for diameter and circumference.

diameter	circumference

4. Make a scatterplot of all of the values above. Make sure you include a title, labels, and scales. Describe the scatterplot.

5. Enter the data into two lists in your calculator. Press STAT-ENTER to access the lists. Clear any data that may be there, and enter your data into lists 1 and 2.

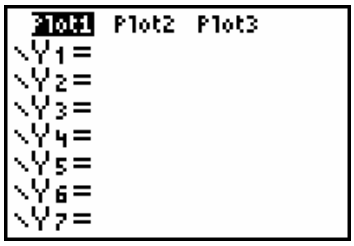


6. Find the equation of the linear regression line through the data points. Press STAT-RIGHT ARROW-4-ENTER. Write it below and graph it on your scatterplot.

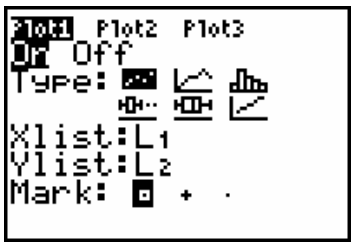
7. m = _____. What should our slope equal? What does this mean?

8. b = _____. What should our y-intercept equal? What does this mean?

9. Graph your line on your calculator. Press Y=, make sure all of the other equations are clear, and type in your equation.



10. Press 2ND-Y=-ENTER to set up your scatterplot. Make your screen look like the one at the right. Press ZOOM-9 to see your scatterplot.



11. If we measured our diameter and circumference with different units, how would that change our graph?