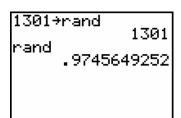
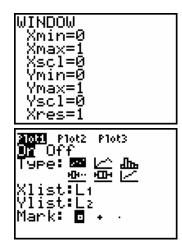
Name

APPROXIMATION OF π

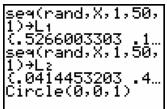
- 1. Seed the random number generator on your calculator with the last four digits of your phone number. Type in the four digits, then press STO-MATH-LEFT ARROW-ENTER. This will give the entire class different random numbers.
- 2. Get your calculator ready by setting the window from (0, 0) to (1, 1). Turn the scatterplot on and clear all equations from the Y= menu.





3. Use the commands given and fill in the following table. Press 2^{ND} -STAT-RIGHT ARROW-5 to access the Sequence command. Press 2^{ND} -PRGM-9 to access the Circle command.

# of points inside circle	$4 \times \frac{\#}{50}$



4. What do the numbers in the second column approximate? Explain why this is so.

5. Press STAT-ENTER and enter your data in list 3. Press STAT-RIGHT ARROW-ENTER-2ND-3-ENTER to find the mean and standard deviation of your data.

 $\overline{x} =$ _____ $S_x =$ _____

6. Press STAT-LEFT ARROW-2 to run a T-Test. Fill in your answers below.

 $H_0:$ _____ P=_____

7. Explain what this means.

8. Collect the means from the entire class. Find the average of these means.

9. Does this method give a good approximation of π ? Describe some of the weaknesses of this method.