COP4342 - 2006 Fall
Assignment 8
Final Assignment

Objectives: Use LaTeXwith numerical tools gp and gnuplot.

Instructions: Your assignment is to write a simple paper in LaTeX incorporating some of the numerical tools that you have learned into a simple paper in LaTeX.

The LaTeX file should be called `Assign8.tex`. Your gp code should be save in `Assign8.gp`, the data generated from your gp code should be in `Assign8.dat`, and your gnuplot code should be saved in `Assign8.gplt`.

You should plot the following parametric equation with gnuplot, save it as a PNG file, and incorporate the diagram into the LaTeX paper:

$$\begin{aligned} x(t) &= (m-n)*\cos(t)+(s*\cos((m/n-1)*t)) \\ y(t) &= (m-n)*\sin(t)-(s*\sin((m/n-1)*t)) \end{aligned}$$

where you can choose attractive values for m, n, and s. (You might want to use the gnuplot command `set samples N` to improve the look of your plots like we did for the equations.) Make at least three different plots using various values for m, n, and s.

Next, make a histogram of the x values of $x = 2^n \mod n-1$ where $2 < n < 500$ using gp to generate your data. Name that data file `Assign8.dat`, as mentioned above.

Submission: Tar all of the files together, and email the tar file as an attachment to `langley@cs.fsu.edu` via e-mail before the beginning of class on Friday, December 8.