Math 350 - Homework 0

This assignment is not for credit and won't be collected for grading. The purpose is to get you just started on using Matlab. Feel free to discuss this and any future assignments with your classmates or me if you have problems.

1. Find a computer on campus that has Matlab installed.

2. Open the Matlab program. After a while a window will open up having a command line prompt that looks somewhat like this:

```
>>
```

3. Type

```
>> 1+1
```

   and hit return. The expected result should appear on the next line.

4. Create a row vector x whose entries are numbers between 0 and 2π sampled at intervals of length $2\pi/100$. Do it by entering

```
>> x=0:2*pi/100:2*pi;
```

   and hitting return. Investigate the effect of ";" by entering the same command without the semicolon. Similarly create a vector y whose entries are the sine of the entries of x:

```
>> y=sin(x);
```

   Now plot the graph of y versus x:

```
>> plot(x,y)
```

5. Open the Matlab help window. (Look for a question mark icon somewhere at the top of the command window.) Search for *plot*, and look for ways to edit your graph. Add a title like "Homework 0, Math 350" and label the axis as "x" and "y." Then figure out how to get your graph printed out.

6. "Extra credit." If you would like to install a free math software on your own computer that is very similar to Matlab, try Scilab. Try to repeat questions 4 and 5 in Scilab. (One difference: the number π should be written "%pi" rather than "pi.") With a little effort searching through the Scilab help facility you will quickly figure out how to modify Matlab scripts to run on Scilab. Scilab also has a *Matlab to Scilab translator* function that you can use for this purpose.

(Future course assignments will be more interesting than this one!)