Octave allows you to save a list of commands in a file and then run all of the commands at once. For example, you might want to make a plot with the following commands:

```
x=-2:0.01:2;
plot(x,exp(x));
title('The Exponential Function')
```

If you save the commands in a file, you can go back and recreate the plot in the future. You can also edit the file to make changes. A file containing a list of commands is called a **script**. Matlab/Octave also allows you to write new functions that extend the program's functionality. Scripts and functions are saved in files with a `.m` extension, but you need to tell Matlab/Octave where to go to look for these files. Here's one way to do this.

1. Create a directory where you are going to keep your `.m` files.
   For example, on a Mac I might use:
   `/Users/david/Documents/Math 314`

   On Windows XP I might use
   `C:\Documents and Settings\david\Math 314`

   On Windows Vista or 7 I might use
   `C:\Users\david\Math 314`

   Of course, you will replace `david` with the name of your user account.

2. Download the file `demoscript.m` from our course web page and save it in the new directory you created.

3. Start Octave or Matlab.

4. **If you are running a Mac or Linux:**
   Type
   `addpath('<my-path>')`
   where `<my-path>` is the full name of the directory you created in Step 1. For example:
   `addpath('/Users/david/Documents/Math 314')`
   Notice that the single quotes are required.

   If you are running Windows:
   Do the same thing, except you must change all of the backslashes into forward slashes in your path name. For example:
   `addpath('C:/Documents and Settings/david/Math 314')`

5. Test that the new path works by issuing the following command: `demoscript`. You should see a graph of $\sin(x)$.

6. Assuming that everything has worked to this point, you need to tell Octave (or Matlab) to use this path in the future. Enter
   ```
   savepath
   ```
7. Exit Octave and restart it. Repeat Step 5 to make sure your new path still works.

Editing Scripts

As explained above, a script in Octave is a sequence of commands to be run in order. To create or edit scripts, you'll need a text editor. The Matlab program has one built in; if you are using Octave you'll need to use something else. On Windows, Notepad will do. On the Mac, you can use TextEdit. Open your application and from it open the file `demoscript.m` that you saved earlier. If you are using TextEdit on the Mac, you'll also need to select "Make Plain Text" from the "Format" menu (or change this preference permanently under "Preferences"). Edit the file by adding a new line at the end with the command `grid`. Save the document and rerun `demoscript`. A new plot (with a grid!) of the exponential function will appear.