Experiment 3
Introduction to MATLAB

Introduction:
This experiment is based on an interactive study of Appendix L.1 of the EE 2240L Laboratory Manual. That document is not a comprehensive introduction or a reference manual. Instead, it focuses on some of the specific features of MATLAB that are useful for electrical engineering classes. The lab session has one main goal: to assist students in becoming familiar with using MATLAB to solve application problems. It is assumed that the students conducting this experiment have no prior experience with MATLAB.

The availability of technical computing environments such as MATLAB is reshaping the role and application of computer laboratory projects so as to involve students in more intense problem-solving experiences. It also provides an opportunity to easily conduct numerical experiments and to tackle realistic and more complicated problems.

This experiment is designed to be completed by students while working at a computer. The emphasis here is on "learning by doing". The experiment is intended to be fully completed in one 150-minute laboratory class.

Preliminaries:
Read and understand Appendix L.1 of the EE 2240L Laboratory Manual.

Procedure:
Complete Exercises L.1.1, L.1.2, L.1.3, L.1.4 and L.1.5 and report your results. Document your procedure in detail.

Preparing Your Lab Report:
Your lab report will consist of a record of the MATLAB commands, MATLAB responses, and the plots you generate. To save a copy of your MATLAB interaction, type

```
>> diary experiment3.txt
```

This will save everything you type, and all of the MATLAB responses, in a text file called `experiment3.txt`.. (You can name the file anything you want, as long as the extension is `txt`.)

To add comments, use a `%` sign at the beginning of the line.

```
>> % This is a comment
```

If you want to stop recording while you try something out, type

```
>> diary off
```

and then, when you want to start recording again,

```
>> diary on
```

Finally, when you are done, you can edit the diary file in your favorite text editor to add comments, or eliminate the text from when you asked for `help`, or perhaps forgot a semicolon and printed an entire array unintentionally. For each task, the diary file should only contain a few lines.

For the report, submit the (cleaned-up) diary file, and the plots that go with it.