Lesson Three Student Notes

Controlling Command Window Input and Output

The **format** function controls the numeric **format** of the values displayed by MATLAB. The function affects only how numbers are **displayed**, not how MATLAB **computes** or **saves** them.
If you simply type a statement and press Return or Enter, MATLAB automatically d**isplays the results on the screen**. However, if you end the line with a **semicolon**, MATLAB performs the computation but does not **display any output**.
If a statement does not fit on one line, use an **ellipsis** (**three** periods), ..., followed by Return or Enter to indicate that the statement continues on the next line.
To recall a previous command line for editing and reentry you can use the ↑ key. You can also copy previously executed statements from the **Command History**.

Interactive Plotting

MATLAB provides three basic plotting tools from the View menu by selecting **Figure Palette**, **Plot Browser**, or **Property Editor**.
The Figure Palette is used to create and arrange **subplot axes**, view and plot **workspace variables**, and add **annotations**.
The Plot Browser is used to select and control the **visibility** of the axes or graphic objects plotted in the figure. You can also **add data** to any selected axes by clicking the **Add Data** control.
The Property Editor is used to set common **properties** of the selected object. You can also click the Inspector button to display the Property Inspector, which provides access to all object **properties**.
The three panels for the Figure Palette are **New Subplots** (add 2-D or 3-D axes to the figure), **Variables** (browse and plot workspace variables), and **Annotations** (add **annotations** to graphs).
The Plot Browser provides a legend of all the **graphs** in the **figure**. It lists each **axes** and the **objects** (lines, surfaces, etc.) used to create the graph.
From the Plot Browser you can set the **properties** of an individual l**ine**. Start by double-clicking on the line in the Plot Browser. Its properties are displayed in the **Property Editor**, which opens on the bottom of the figure.
With the Plot Browser open if you select a line in the graph, then the corresponding entry in the Plot Browser is **highlighted**, enabling you to see the specific portion of which variable produced the line.
The check box next to each item in the Plot Browser controls the object's **visibility**.
To add a new set of data to existing axes you select the **axes** in the **Plot Browser** and then click the **Add Data** button to display the **Add Data to Axes** dialog. The **Add Data to Axes** dialog enables you to select a plot type and specify the workspace variables to pass to the plotting function. You can also specify a MATLAB **expression**, which is **evaluated** to produce the data to plot.