Matlab Level 1: The first exercises are all done in the command window. The ‘>>’ refers to the command window prompt.

Explore the on-line help files:
>>help help

Explore the demonstration files:
>>demo

Learn how to create variables.
>>a=10
>>b=5
>>c=a*b

Learn how to use the ‘;’ by repeating the above statements with a ‘;’ at the end of each statement.
More uses of the ‘;’:
>>d=[1,2,3;4,5,6;7,8,9]
>>e=[2,2,2;3,3,3;4,4,4]

Be careful when multiplying vectors. Try these:
>>f=d*e
>>g=e*d

Did you get the same answer? No?! That’s because MATLAB is written to perform vector mathematics for arrays – so be careful!

Create some strings:
>>A=['a string']
>>B=['another string']
>>C=[A B]

It is easy to combine string variables in MATLAB. Now, check out how many variables you have created:
>>whos

The ‘whos’ command is a useful command when debugging a program. Clear the screen from all the work:
>>clc

Note, if you hit ‘page-up’ the work is still there.
Let’s change what A represents, use the ‘up-arrow’ key to find the A=['a string'] and change the command:
>>A=['a different string']

The up-arrow key can be a short cut to redo commands.
Now, lets clear all the variables that you have created and start over:
>>clear

Check to make sure you have no variables
>>whos

Also, try ‘help clear’ to see what options you have when using the ‘clear’ function.

Use MATLAB to solve the following problems (write commands in the command window):
1. What is the hypotenuse of a right triangle that has sides A=6.5 and B=8.8?
2. If a runner ran 5 miles on Monday, 6.2 on Tuesday, 4 on Wednesday, and 10 on Saturday, what was the total weekly mileage?
3. For the runner in #2, what was the average miles per day ran?
4. If a diver completed 2.5 revolutions in 1.1 seconds, what was the average angular speed?
5. Convert 5 miles per hour to m/s.