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**Lab Section: 107**

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**Creating Variables**

What type of variable is each of the 3 variables you have created?

*x is type integar*

*y is type float*

*str is type string*

**Mathematical Operators**

What is the order of operation of the last command?

The exponential power gets done first, then the two subtractions.

**Basic Commands**

What happens when you enter the command “clear”?

The workspace is clear.

What happens when you enter the command “clc”?

The command window is clear.

**Creating Vectors & Matrices**

Within the brackets, what does the “;” do?

It does vertical concatenation.

What does the “:” do?

It creates a bound for the array elements. And increases by the increment in between.

Do any of the lines cause an error? Why?

The E one causes an error because the dimension of the second array being concatenated is not consistent with the first one.

The F one causes an error because there is an additional unsupported character.

What does the ' do to matrix F?

It breaks the statement.

**Matrix Operations**

Of the operations you entered, which doesn't work and why?

**J,K,M work but L doesn’t because the dimensions of the two matrices being multiplied do not match.**

**Element Operations**

Compare the output from M with N. What is the difference? Given what you notice, what effect does the “.” have?

The elements are different. The “.\*” operator does element wise multiplication thus “.” applies the operation to all the elements.

Write the line of code you used to create the matrix in the Lab 1 Assignment?

3.\*eye(3)

**Function Calls**

What happens when you apply the sum function to a matrix, as opposed to a vector?

It sums up vertically instead of horizontally.

**Simple Plotting**

In the plot function you called, what are t and w?

The corresponding X and Y coordinates.

What does specifying the third parameter as 'g' do? (Hint: Try changing 'g' to 'm' and replotting, and see what happens.)

It changes the color of the plot.

What changes did you observe when changing the increment in t from 0.5 to 0.1?

It becomes smoother.