**MATLAB/Octave Basic Operations**

**Elementary Math Operations**

**#addition**

>> 5+6

ans =

11

**#subtraction**

>> 3-1

ans =

2

**#multiplication**

>> 4\*5

ans =

20

**#division**

>> 1/4

ans =

0.2500

**#power**

>> 2^5

ans =

32

**Logical Operations**

**#equal**

>> 2 == 1

ans =

logical

0

**#not equal**

>> 2 ~= 1

ans =

logical

1

**#AND operator**

>> 0 && 1

ans =

logical

0

**#OR operator**

>> 0 || 1

ans =

logical

1

**#XOR operator**

>> xor(1,0)

ans =

logical

1

**Assignment Operator**

**#assign numeric value**

>> a = 3

a =

3

**#assign string value**

>> b = 'Hi'

b =

'Hi'

**#use semicolon to skip printing output onto the console**

>> a = 3;

**#print variable value**

>> a

a =

3

>> b

b =

'Hi'

**#assign logical value**

>> c = (3>=1)

c =

logical

1

**#assign mathematical term 'pi' value to variable a**

>> a = pi;

**#print variable a**

>> a

a =

3.1416

**#more ways to display variable values in a good format**

>> disp(a)

3.1416

**#print limited decimals for any given variable, in this case upto 2 decimal values**

>> disp(sprintf('2 decimals: %0.2f', a))

2 decimals: 3.14

**#upto 6 decimal values**

>> disp(sprintf('2 decimals: %0.6f', a))

2 decimals: 3.141593

**#original format**

>> a

a =

3.1416

**#change default format to long**

>> format long

**#example of long value format**

>> a

a =

3.141592653589793

**#change default format to short**

>> format short

**#example of short value format**

>> a

a =

3.1416