Basic Operations

%% Change Octave prompt

PS1('>> ');

%% Change working directory in windows example:

cd 'c:/path/to/desired/directory name'

%% Note that it uses normal slashes and does not use escape characters for the empty spaces.

%% elementary operations

5+6

3-2

5\*8

1/2

2^6

1 == 2 % false

1 ~= 2 % true. note, not "!="

1 && 0

1 || 0

xor(1,0)

%% variable assignment

a = 3; % semicolon suppresses output

b = 'hi';

c = 3>=1;

% Displaying them:

a = pi

disp(a)

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

disp(sprintf('6 decimals: %0.6f', a))

format long

a

format short

a

%% vectors and matrices

A = [1 2; 3 4; 5 6]

v = [1 2 3]

v = [1; 2; 3]

v = 1:0.1:2 % from 1 to 2, with stepsize of 0.1. Useful for plot axes

v = 1:6 % from 1 to 6, assumes stepsize of 1 (row vector)

C = 2\*ones(2,3) % same as C = [2 2 2; 2 2 2]

w = ones(1,3) % 1x3 vector of ones

w = zeros(1,3)

w = rand(1,3) % drawn from a uniform distribution

w = randn(1,3)% drawn from a normal distribution (mean=0, var=1)

w = -6 + sqrt(10)\*(randn(1,10000)); % (mean = -6, var = 10) - note: add the semicolon

hist(w) % plot histogram using 10 bins (default)

hist(w,50) % plot histogram using 50 bins

% note: if hist() crashes, try "graphics\_toolkit('gnu\_plot')"

I = eye(4) % 4x4 identity matrix

% help function

help eye

help rand

help help

Moving Data Around