**Reference Section:**

all(vec)– returns true if all of the values in a logical vector are true

any(vec)– returns true if any of the values in a logical vector are true

cell2mat(arr) –converts a cell array of doubles to an array of doubles

class (vec) – returns the data type of a variable

double(vec)– returns the values of vec as floating point numbers

fclose(fh) –closes a text file

fgetl(fh), fgets(fh) – returns the next line down in the text file specified by fh

fprintf(fh,line)—prints a line to the text file specified by fh

find(vec)– returns the numerical indices where a logical vector is true

floor (num) – rounds a decimal down to the closest integer

fopen(filename, permission) –opens a .txt file with specified permissions ('w', 'r', or 'a') and returns the file handle of the new file

ischar, isnumeric, iscell, islogical, isnan, isempty (var)- outputs true or false, depending on whether or not the variable has a particular data type or value

length(vec)– returns the number of elements in a vector, or the longest dimension of an array

linspace (start, stop, num) – returns a vector of length num containing evenly spaced values between start and stop

[a b] = max(vec)– returns the value and position of the maximum value in a vector

mean(vec)– returns the average of the values in a vector

[a b] = min(vec)– returns the value and position of the minimum value in a vector

mod(x,y)– returns the remainder after x is divided by y

num2cell(arr), mat2cell(arr) – converts an array of doubles to a cell array

num2str(x) – converts a number to the string representing that number

ones(r,c)– returns a r\*c array all with value 1

rand(r,c)– returns a r\*c array containing random numbers between 0 and 1

round(num) – rounds a number to the nearest integer

reshape(arr,r,c) – returns an r\*c array formed by reshaping an array which has r\*c total elements

[r,c] = size(arr)– returns the number of rows and columns of an array

[v,o] = sort(vec)– returns the sorted values of a vector and their positions. Sorts cell arrays in alphabetical order.

sprintf(fmt,var1,…)– returns a string containing the format string after replacing

the %<> entries with each input parameter.

str2num(x) – converts a string representing a number to the number itself

strcmp(a,b)– returns true if the string in a is identical to the string in b

strfind(str, pattern) – returns the numerical indices where each incidence of the pattern of letters occurs in a string

[tk,rest] = strtok(str,dlm)– discards leading delimiters and returns the next token and the remains of the string

sum(vec)– returns the sum of the values in a vector

[num txt raw] = xlsread(filename) – Reads in an Excel file (.xls or .xlsx) and stores numerical data in num, character data in txt, and all data in raw.

xlswrite(filename,data) – writes a new Excel file (.xls or .xlsx) with an input cell array

zeros(r,c)– returns a r\*c array of zeros