%%FOR LOOPS

%run this code 5 times. use a for loop

%HINT:Wrap this code in a FOR loop (loop the code 5 times ( i = 1:5) ) and run the section.

for i = 1:5

figure

hist(rand(8,1))

end

# 2nd section

%complete the code

for idx = 1:10

idx

%DISPLAY IDX

end

%%%%%%%%%%%%

for i = 1: 5

i + 1 % add "1" to the index, then suppress the output (";")

end

%%%%%%%%%%%%%%

age = [1:3:22]

for i = 1: length(age) %insert here the length() of "age" to establish the extension of the loop

a = age(i) %display NOT the index (i), but each element of "age".

%access the vector using the index (i).

end

# more for loops.

%read the code and the comments carefully. Then do the exercise below.

Vector\_A = [22,33,44,55,66,77]; %";" suppress the output, which is stored into the workspace anyway.

Vector\_B = [11, 32, 43, 54, 65,76];

Vector\_C = [43, 22, 66, 73,41];

list\_of\_vectors = {Vector\_A, Vector\_B, Vector\_C};%we have the funny brackets because it's like a "list of vectors".

three\_vectors\_mean = [] %it creates an empty list where we will store our future results.

for i = 1:length(list\_of\_vectors) %length of the number of element of list of vec.

vec = list\_of\_vectors{i}; %accessing each of the 3 elements.

mean\_vec = mean(vec); %calculating the mean for each vector

three\_vectors\_mean = [three\_vectors\_mean, mean\_vec] %appending the result to a new list.

end

# Section 3.

%use the code above to help you out. Calculate the standard deviation

%(use the function std() )of the vectors "Vector\_A , B, C" stored in

%"list\_of\_vectors", and store it into a list called "three\_vectors\_sd".

Vector\_A = [22,33,44,55,66,77];

Vector\_B = [11, 32, 43, 54, 65,76];

Vector\_C = [43, 22, 66, 73,41];

list\_of\_vectors = {Vector\_A, Vector\_B, Vector\_C};

three\_vectors\_sd = []%create an empty list where to store the future results

for i = 1:length(list\_of\_vectors) %1 to the length of the number of element of list of vec.

vectors = list\_of\_vectors{i} %accessing each of the 3 vectors in the list. use the index (i).

standard\_dev = std(vectors)%calculate the standard dev for each vector. use "std()"

three\_vectors\_sd = [three\_vectors\_sd, standard\_dev] % add the results to the list.

end

%Nested for loops

%create a nested for loop that calculate the amount of interest earned

%within 7 years if the monthly interest amount is 1%.

% 1st for loop = 7 years

% 2nd for loop = 12 months

interest=0; %set up the initial interest at zero

balance = 5000; %that's your balance

for i = 1:7%... start the for loop, looping through the years

for j = 1:12 %... loop trough the months

interest = interest + balance \* 0.01 %calculate the interest increase (initial interest summed to the

%balance \* the interest amount

end

end%end the two loops,

interest

%print the interest