%1

z= 0:2:10;

k= 30:4:50;

figure;

subplot (1,2,1)

plot (z,k)

title ('K as a function of Z')

xlabel ('z');

ylabel ('k');

subplot (1,2,2)

stem (z, k);

title ('K as a function of Z')

xlabel ('z');

ylabel ('k');

%2

a= [1,2,3;4,9,8;3,5,6]

b= [5,8,23;10,7,1;3,2,1]

c= a + b

d= a .\* b

e= a.' + b.'

%3

a=4;

for i= 1:20

a=a+2;

end

disp(a)

%4

r=randn(1,100);

meanR= mean(r);

if meanR > 0.4

disp('the mean is larger than 0.4')

else

disp('the mean is lower than 0.4')

end

%5

time= 0:0.2:3

randVec1= rand(1,16)

randVec2= rand(1,16)

figure;

plot (time,randVec1)

hold on;

plot (time, randVec2);

title ('randomVectors as functions of time')

xlabel ('time');

ylabel ('vector');

legend ('randVec1', 'randVec2')