**2.5 MATLAB CODE**

% Question 2

% no. of simulations

num = 10000;

% Random number to be searched for

k = randi([1 num], 1);

count = 0;

for i = 1:num

flag = 0; % To indicate Not Seeing the number

count1 = 1;

while(count1<=num && flag==0)

r = randi([1 num], 1);

if(r == k)

flag = 1;

end

count1 = count1+1;

end

if(flag == 0)

count = count+1;

end

end

p = count/num; % Probability value