clear all;

P=[0.3, 0.4, 0.3; 0.2, 0.5, 0.3; 0.6, 0.1, 0.3];

%P=[0.2, 0.7, 0.1; 0.2, 0.3, 0.5; 0.6, 0.1, 0.3];

A=cumsum(P,2);

n=10000;

x=zeros(1,n);

%x(1)=1;

Z=zeros(3,n);

Y=zeros(3,n);

%Z(2,1)=1;

%Y(2,1)=1;

for i=2:n

prev = x(i-1);

r=rand(1);

for j=1:3

if(r < A(prev+1,j))

x(i) = j-1;

break;

end

end

Z(x(i)+1,i)=1;

for k=1:3

Y(k,i) = sum(Z(k,:))/i;

end

end

plot(1:n,Y(1,:), 1:n,Y(2,:), 1:n,Y(3,:));

%kontrola = P^20;

%kontrola1 = Y(:,n);

A

0,300000000000000 0,700000000000000 1

0,200000000000000 0,700000000000000 1

0,600000000000000 0,700000000000000 1

P

0,300000000000000 0,400000000000000 0,300000000000000

0,200000000000000 0,500000000000000 0,300000000000000

0,600000000000000 0,100000000000000 0,300000000000000