

```
commandwindow
clear
clc

c=[10,-2, 1;-2,10,-2;-2,-5,10]
d=[9;12;18]
m=[0;0;0]

cj=[0 c(1,2)/-c(1,1) c(1,3)/-c(1,1);
    c(2,1)/-c(2,2) 0 c(2,3)/-c(2,2);
    c(3,1)/-c(3,3) c(3,2)/-c(3,3) 0]

dj=[d(1,1)/c(1,1);
    d(2,1)/c(2,2);
    d(3,1)/c(3,3)]

m=[0;0;0];
for i=1:7
    iter(i+1)=i
    norm1=norm(m)
    m=(cj*m)+dj
    m1(i+1)=m(1,1)
    m2(i+1)=m(2,1)
    m3(i+1)=m(3,1)
    norm2=norm(m)
    error(i+1)=abs(norm1-norm2)
    if error(i+1) <= 1E-15
        break
    end
end
end
tab= [iter' m1' m2' m3' error']
```