

//Résolution TP1 MN PAR DR.S.KETTAB
//exercice 1

```
T=[2 -1 0 0 0;-1 2 -1 0 0;0 -1 2 -1 0;0 0 -1 2 -1;0 0 0 -1 2];  
t1=T(:,[1,2]); //question 1  
t2=T([2:4],[2:4]); //question 2  
T2=T;l1=T2(1,:);l3=T2(3,:);T2(1,:)=l3;T2(3,:)=l1; //question 3  
c4=T2(:,4);T2(:,2)=c4; //question 3
```

//exercice 2

```
M1=[2 1 0;-1 2 -1;0 -1 2];  
M2=[2 1 0;-1 0 -2;-1 -1 2];  
M3=[1 2 -1;0 -1 2;0 0 -1];  
d1=det(M1);d2=det(M2);d3=det(M3);  
inv1=inv(M1);inv2=inv(M2);inv3=inv(M3);
```

//exercice 3

```
A=[1 3 2;-5 3 1;-10 0 3];B=[1 -2 5;6 1 -1];C=[10 -5;3 1];  
BA=B*A;ABt=A*B'; //question 1  
//question 2  
dA=det(A);  
dB=det(B);  
dC=det(C);  
//question 3  
invA=inv(A);  
invB=inv(B);  
invC=inv(C);  
//question 4  
E=A*A';spect=spec(E)  
//question 5  
ray=max(abs(spect))
```