Décomposition LU – Gauss (TP 5 Prof. SABBAR)

```
function [L,U]=ludecomposition(A)
n=size(A,1);
L=eye(n);
for k=1:n
        L(k+1:n,k)=A(k+1:n,k)/A(k,k);
        for l=k+1:n
              A(l,:)=A(l,:)-L(l,k)*A(k,:);
         end
end

U=A;

end
```

Méthode de Jacobi (TP 5 Prof. SABBAR)

```
function sol=jacobi_method(A,b,N)

diagonal=diag(diag(A));
diag_deleted=A-diagonal;

sol=zeros(size(b,1),1)+2;

    for i=1:N
            sol=diagonal\(b-diag_deleted*sol)
     end
end
```