

```

%solve avec la décomposition LU function x = solveLU(A,b) [L,U,P]=lu(A); n=size(A,1); y =
zeros(1,n); x = zeros(1,n); y(1) = b(1)/L(1,1); for i=2:n y(i) = b(i); for j=1:i-1 y(i) = y(i) - L(i,j)*y(j);
end y(i)=y(i)/L(i,i); end %on calcul maintenant l'autre équation  $L^t x = y$  x(n) = y(n)/U(n,n); for
i=n-1:-1:1 x(i) = y(i); for j=i+1:n x(i) = x(i)-U(i,j)*x(j); end x(i) = x(i)/U(i,i); end

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