```
function [x] = SubsDesc(A,b)
%SubsDesc rezolva sisteme superior triunghiulare

%Synopsis: [x] = SubsDesc(A,b)

%Input: A = matrice patratica de ordinul n,
%       superior triunghiulara (aij = 0, i>j)
%       b = vectorul termenilor liberi

%Output: x = solutia sistemului

%------Vericare matrice patratica
[n,m] = size(A);
if n~=m
    error('Matricea nu este patratica')
    x = [];
    return
end

%--- Verificare daca matricea este superior triunghiulara
for i = 2:n
    for j = 1:i-1
        if A(i,j)~=0
            error('Matricea nu este superior triunghiulara')
            x = [];
            return
        end
    end
end
%----Verificare incompatibilitate sistem
for i=1:n
    if A(i,i)==0
        error('Sistemul nu admite solutie unica')
        x = [];
        return
    end
end

%---Rezolvarea sistemului
x(n) = b(n)/A(n,n);
k = n-1;
while k>0
    sum = 0;
    for j = k+1:n
        sum = sum + A(k,j)*x(j);
    end
    x(k) = 1/A(k,k)*(b(k) - sum);
    k = k - 1;
end


ans =
```

```
    -1     2     1

Sistem incompatibil sau sistem compatibil nedeterminat

ans =

    0.1913    0.1740    0.1691    0.1679    0.1685    0.1713    0.1790


InvA =

    0.0740    0.0274    0.0101    0.0037    0.0014    0.0005    0.0002
    0.0219    0.0821    0.0303    0.0112    0.0041    0.0015    0.0005
    0.0065    0.0243    0.0829    0.0307    0.0113    0.0041    0.0014
    0.0019    0.0072    0.0245    0.0830    0.0307    0.0112    0.0037
    0.0006    0.0021    0.0072    0.0245    0.0829    0.0303    0.0101
    0.0002    0.0006    0.0021    0.0072    0.0243    0.0821    0.0274
    0.0000    0.0002    0.0006    0.0019    0.0065    0.0219    0.0740


DetA =

   9.2754e+07
```

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