
```
clear all;
clear;
clc;

A= [
    4 -1 -1 -1
    -1 4 -1 -1
    -1 -1 4 -1
    -1 -1 -1 4 ];

eigen_values= zeros(1,4);

[eigen_values(1),x]= deflation(A);

for i= 2:4
    A= A - eigen_values(i-1).*(x*(x.')).';
    [eigen_values(i),x]= deflation(A);
end

eigen_values

eigen_values =

    5.0000    1.0000    5.0000    5.0000
```

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