
2b)

Getting A and b value for n = 1, 3, 5, 7

```
[mat1,btemp1] = generate_SPD_mat_and_rhs_vec(1);  
[mat2,btemp2] = generate_SPD_mat_and_rhs_vec(3);  
[mat3,btemp3] = generate_SPD_mat_and_rhs_vec(5);  
[mat4,btemp4] = generate_SPD_mat_and_rhs_vec(7);
```

```
%Solving for x
```

```
x1 = gspp(mat1,btemp1)  
x2 = gspp(mat2,btemp2)  
x3 = gspp(mat3,btemp3)  
x4 = gspp(mat4,btemp4)
```

```
% plotting the result
```

```
subplot(2,2,1)  
plot(1,x1, '*')  
title('For N = 1')
```

```
subplot(2,2,2)  
plot(1:3,x2, '*')  
title('For N = 3')
```

```
subplot(2,2,3)  
plot(1:5,x3, '*')  
title('For N = 5')
```

```
subplot(2,2,4)  
plot(1:7,x4, '*')  
title('For N = 7')
```

x1 =

-1

x2 =

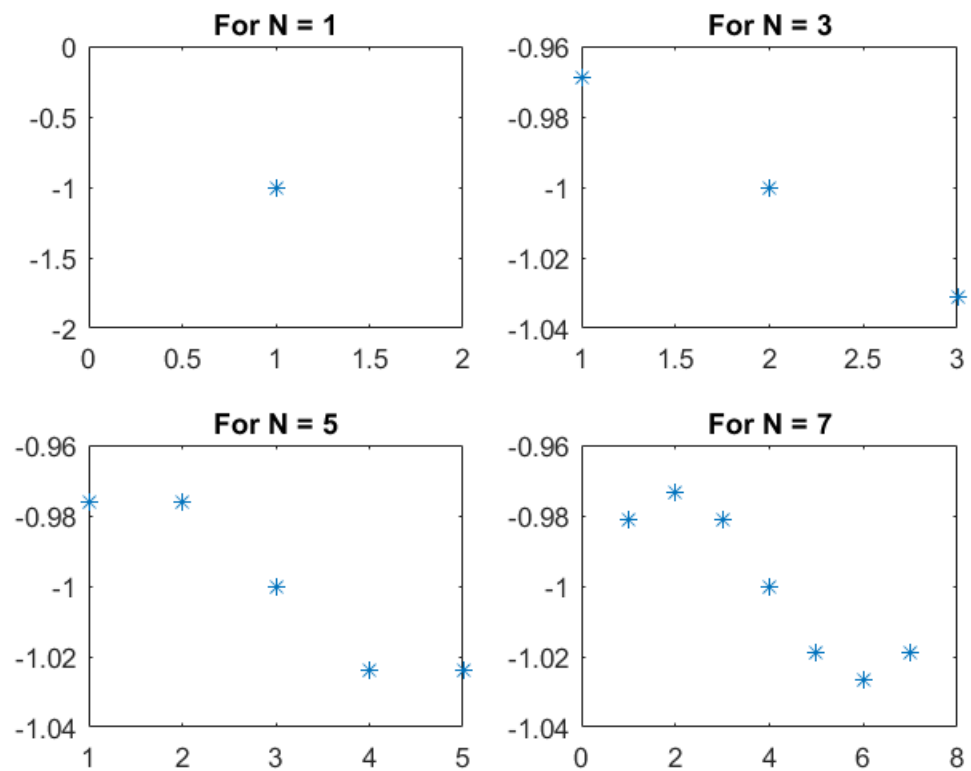
-0.9688
-1.0000
-1.0312

x3 =

-0.9759
-0.9759
-1.0000
-1.0241
-1.0241

$x_4 =$

-0.9811
-0.9733
-0.9811
-1.0000
-1.0189
-1.0267
-1.0189



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