

Contents

- [Illustrate forward substitution on B using provided Matlab function](#)

```
% HW 1 Problem 1(c) & (d)
% Show the forward sub. function works

clear
clc
close all

load('lowertriang_testproblem.mat')

Lwork=cat(2,L,bL); % concatenated matrix
```

Illustrate forward substitution on B using provided Matlab function

```
fsoln = fwdsub(Lwork);
disp('Elimination/back sub solution: ');
disp(fsoln);

disp('Matlab,GNU/Octave built-in solution: ');
fmat = L\bL;
disp(fmat);

Errr = fmat - fsoln;
disp('The error is: ');
disp(Errr);
```

Elimination/back sub solution:

```
1.0000
3.0000
5.0000
7.0000
9.0000
11.0000
13.0000
15.0000
```

Matlab,GNU/Octave built-in solution:

```
1.0000
3.0000
5.0000
7.0000
9.0000
11.0000
13.0000
15.0000
```

The error is:

```
1.0e-13 *

     0
     0
     0
0.0089
```

0
-0.0178
0.0533
0.1599