4

```
main: initialize matrix A[N][N+1] as [A|B]
 1.00 1.00 1.00 4.00 22.00 0.00 0.00
                                      0.00
                                            0.00
 1.00
      1.00 4.00
                1.00 19.00 0.00
                                 0.00
                                      0.00
                                            0.00
 1.00 4.00 1.00 1.00 16.00 0.00 0.00 0.00
                                            0.00
 0.00 \quad 0.00
 0.00 0.00 0.00 0.00 0.00
                           0.00
                                 0.00
                                      0.00 0.00
 0.00 0.00 0.00 0.00 0.00
                           0.00
                                 0.00
                                      0.00 0.00
0.00 0.00 0.00 0.00 0.00 0.00
                                 0.00
                                     0.00 0.00
main: create N=4 working threads
main: wait for all 4 working threads to join
partial pivoting by thread 0 on row 0: pivot row=3 pivot= 4.00
thread 2 do row 2
thread 1 do row 1
thread 3 do row 3
partial pivoting by thread 1 on row 1: pivot row=2 pivot= 3.75
 4.00 1.00 1.00 1.00 13.00 0.00 0.00 0.00
                                            0.00
0.00 3.75 0.75
                0.75 12.75 0.00
                                 0.00
                                      0.00
                                            0.00
 0.00 0.75 3.75 0.75 15.75 0.00 0.00 0.00
                                            0.00
0.00 0.75 0.75
               3.75 18.75 0.00 0.00 0.00
                                            0.00
 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 0.00 0.00 0.00 0.00 0.00
                           0.00
                                 0.00 0.00 0.00
 0.00 0.00 0.00
               0.00
                      0.00
                           0.00
                                 0.00
                                      0.00 0.00
 0.00 0.00 0.00
                0.00 0.00
                           0.00
                                0.00 0.00 0.00
thread 2 do row 2
thread 3 do row 3
4.00 1.00 1.00 1.00 13.00 0.00 0.00
                                      0.00
                                            0.00
 0.00 3.75 0.75 0.75 12.75
                            0.00
                                 0.00
                                      0.00
                                            0.00
 0.00 0.00 3.60 0.60 13.20 0.00 0.00 0.00 0.00
 0.00 0.00 0.60 3.60 16.20 0.00 0.00 0.00 0.00
 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 0.00 0.00 0.00 0.00 0.00
                           0.00
                                 0.00
                                      0.00 0.00
0.00 0.00 0.00 0.00 0.00
                           0.00
                                0.00 0.00 0.00
      0.00 0.00 0.00 0.00
                           0.00
                                 0.00 0.00 0.00
partial pivoting by thread 2 on row 2: pivot row=2 pivot= 3.60
thread 3 do row 3
partial pivoting by thread 3 on row 3: pivot row=3 pivot= 3.50
```

0.00	3.75	0.75	0.75	12.75	0.00	0.00	0.00	0.00
0.00	0.00	3.60	0.60	13.20	0.00	0.00	0.00	0.00
0.00	0.00	0.00	3.50	14.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				-				
4.00	1.00	1.00	1.00	13.00	0.00	0.00	0.00	0.00
0.00	3.75	0.75	0.75	12.75	0.00	0.00	0.00	0.00
0.00	0.00	3.60	0.60	13.20	0.00	0.00	0.00	0.00
0.00	0.00	0.00	3.50	14.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		1		-1 1				

 $main: back\ substitution: The\ solution\ is:$ 

1.00 2.00 3.00 4.00