```
Python 3.6.5 |Anaconda, Inc.| (default, Mar 29 2018, 13:32:41) [MSC v.1900 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 6.4.0 -- An enhanced Interactive Python.

In [1]: runfile('C:/Users/hoops/OneDrive/Documents/School/ME EN 2450 Numerical Methods/
HW4/HW4.py', wdir='C:/Users/hoops/OneDrive/Documents/School/ME EN 2450 Numerical Methods/
HW4')
Exercise 1b:

x =
[[1.]
 [1.]
 [1.]]
L =
[[ 1.          0.          0.        ]
 [-0.25        1.          0.        ]
 [ 0.25       -0.33333333  1.        ]]
U =[[ 8.    4.   -1.  ]
 [ 0.    6.    0.75]
 [ 0.    0.    6.5 ]]


Exercise 2b:

L =
 [[ 1.          0.          0.        ]
 [-0.66666667  1.          0.        ]
 [ 0.         -0.6         1.        ]]
U =
 [[ 30.         -20.           0.        ]
 [  0.          16.66666667 -10.        ]
 [  0.           0.           4.        ]]

x1 = [7.3575]m, x2 = [10.05525]m, x3 = [12.50775]m

Exercise 2c:

x1 = [14.715]m, x2 = [20.1105]m, x3 = [25.0155]m


Exercise 3a:

Using numpy.linalg.solve
 x1 = [1.69736842], x2 = [2.82894737], x3 = [4.35526316]

Exercise 3b:

Using Gauss Seidel
x1 = [1.69736821], x2 = [2.82894748], x3 = [4.3552631]

In [2]:
```