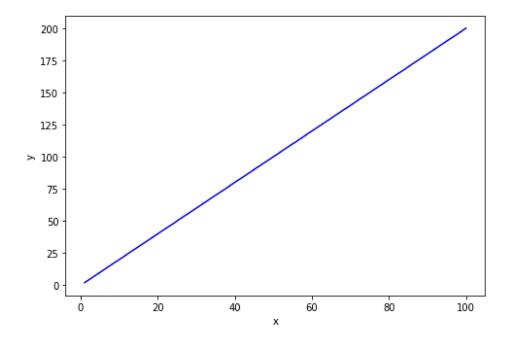
Exercise 1

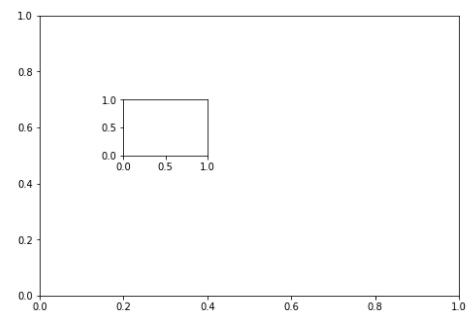
```
In [23]:
         import matplotlib.pyplot as plt
         import numpy as np
         fig = plt.figure()
         axes = fig.add_axes([0, 0, 1, 1])
         x = np.arange(1,101)
         y = x * 2
         axes.plot(x, y, 'b')
         axes.set_xlabel("x")
         axes.set_ylabel("y")
```

Out[23]: Text(0,0.5,'y')



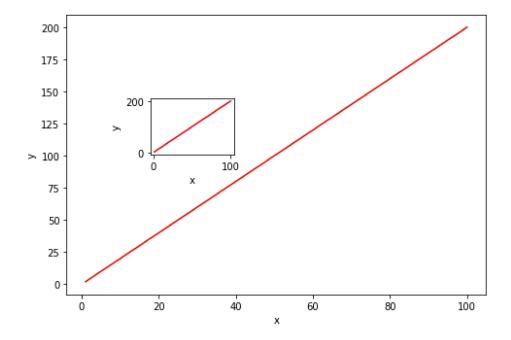
Exercise 2

```
fig = plt.figure()
In [25]:
         ax1 = fig.add_axes([0, 0, 1, 1])
         ax2 = fig.add_axes([0.2, 0.5, 0.2, 0.2])
```



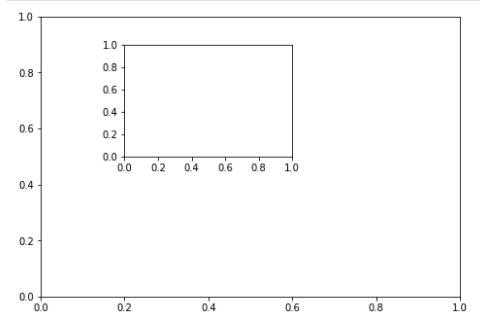
```
In [27]:
         fig = plt.figure()
         ax1 = fig.add_axes([0, 0, 1, 1])
         ax2 = fig.add_axes([0.2, 0.5, 0.2, 0.2])
         ax1.plot(x, y, 'r')
         ax1.set_xlabel("x")
         ax1.set_ylabel("y")
         ax2.plot(x, y, 'r')
         ax2.set_xlabel("x")
         ax2.set_ylabel("y")
```

Out[27]: Text(0,0.5,'y')



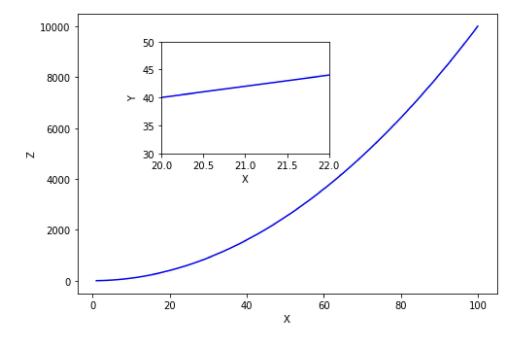
Exercise 3

```
In [28]:
         fig = plt.figure()
         ax1 = fig.add_axes([0, 0, 1, 1])
         ax2 = fig.add_axes([0.2, 0.5, 0.4, 0.4])
```



```
In [38]:
         z=x**2
         fig = plt.figure()
         ax1 = fig.add_axes([0, 0, 1, 1])
         ax2 = fig.add_axes([0.2, 0.5, 0.4, 0.4])
         ax1.plot(x, z, 'b')
         ax1.set_xlabel("X")
         ax1.set_ylabel("Z")
         ax2.plot(x, y, 'b')
         ax2.set xlabel("X")
         ax2.set_ylabel("Y")
         ax2.set xlim([20.0,22.0])
         ax2.set_ylim([30,50])
```

Out[38]: (30, 50)



```
In [40]:
           fig,ax = plt.subplots(nrows=1,ncols=2)
            1.0
                                         1.0
                                         0.8
            0.8
                                         0.6
            0.6
            0.4
                                         0.4
            0.2
                                         0.2
            0.0
                                           0.0
               0.0
                   0.2
                             0.6
                                  0.8
                                      1.0
                                                0.2
                                                     0.4
                                                          0.6
                                                              0.8
In [51]:
           fig,ax = plt.subplots(nrows=1,ncols=2)
           ax[0].plot(x, y, 'b--',linewidth=3)
ax[1].plot(x, z, 'r',linewidth=4)
Out[51]: [<matplotlib.lines.Line2D at 0x245579a3320>]
            200
                                       -10000
            175
                                         3000
            150
            125
                                         5000
            100
                                         1000
             75
              50
                                         2000
             25
                                           0
                      25
                           50
                                 75
                                      100
                                                  25
                                                        50
                                                              75
                                                                  100
In [59]:
           fig,ax = plt.subplots(nrows=1,ncols=2,figsize=(10, 2))
           ax[0].plot(x, y, 'b',linewidth=4)
           ax[0].set_xlabel("x")
           ax[0].set_ylabel("y")
           ax[1].plot(x, z, 'r--',linewidth=2)
           ax[1].set_xlabel("x")
           ax[1].set_ylabel("z")
Out[59]: Text(0,0.5,'z')
                                                            10000
               200
                                                             7500
              150
            > 100
                                                             5000
                                                             2500
               50
                          20
                                  40
                                                       100
                                                                                                       100
                                         60
                                                                                         60
 In [ ]:
```

10/5/2018