# Matplotlib Exercises

In [2]:

```
import numpy as np
x = np.arange(0, 100)
y = x*2
z = x**2
```

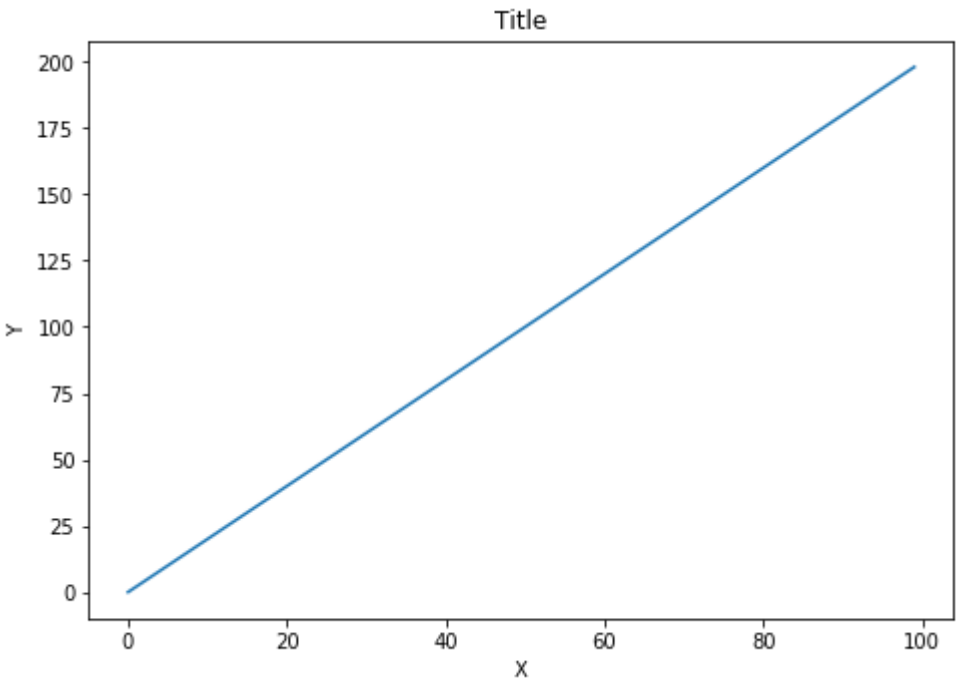
## Excercise1

In [4]:

```
import matplotlib.pyplot as plt
%matplotlib inline
fig = plt.figure()
ax = fig.add_axes([0,0,1,1])
ax.plot(x,y)
ax.set_xlabel('X')
ax.set_ylabel('Y')
ax.set_title('Title')
```

Out[4]:

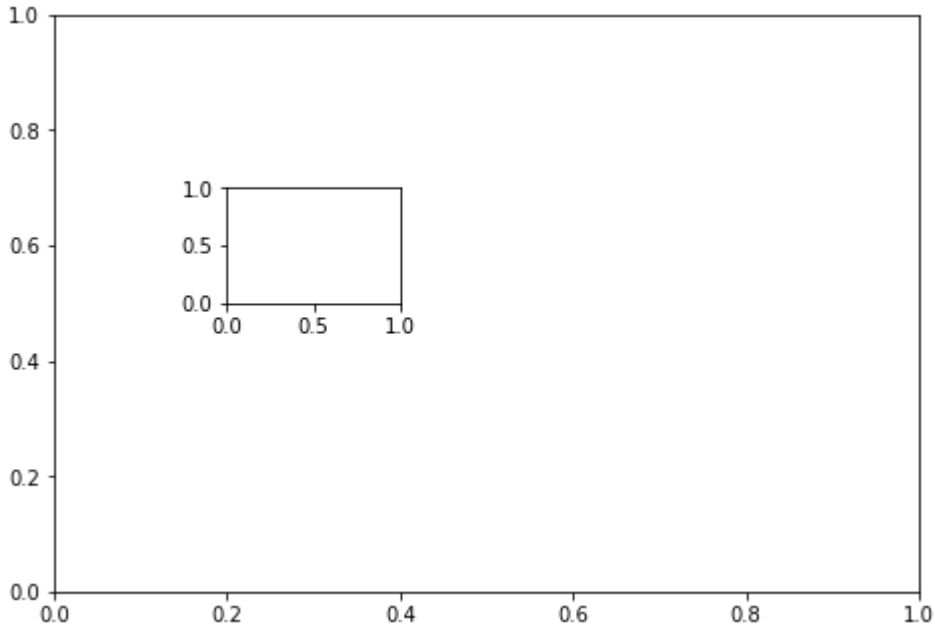
```
Text(0.5,1,'Title')
```




## Excercise 2

In [23]:

```
fig = plt.figure()
ax1 = fig.add_axes([0,0,1,1])
ax2 = fig.add_axes([0.2,0.5,.2,.2])
```

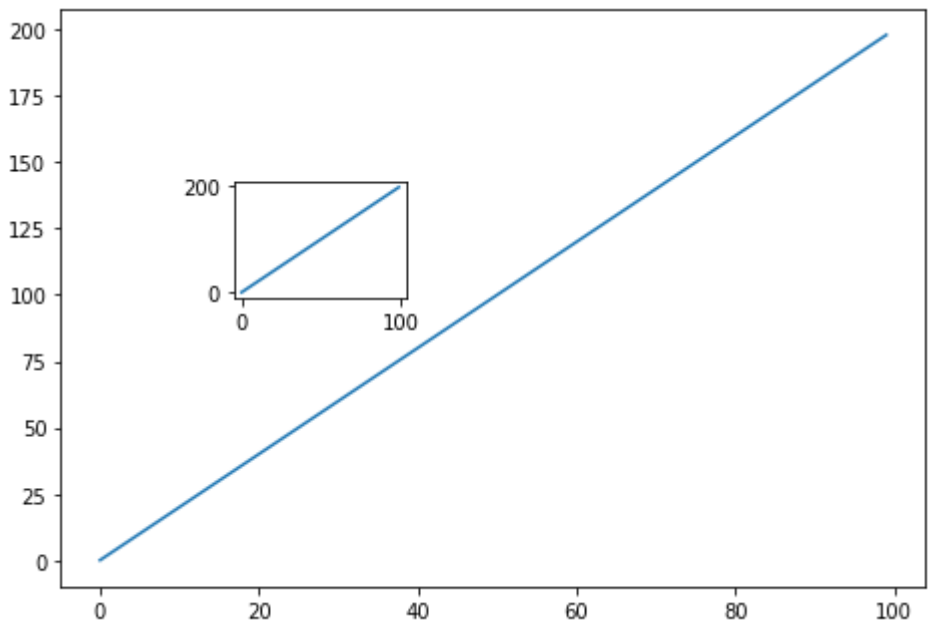



In [6]:

```
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)
ax2.plot(x,y)
```

Out[6]:

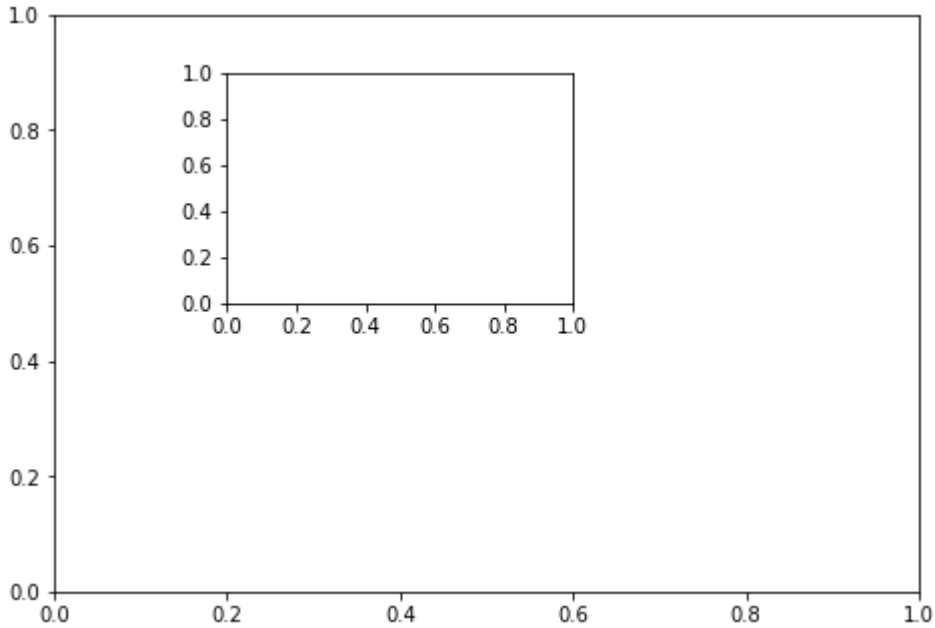
```
[<matplotlib.lines.Line2D at 0x11d343630>]
```




## Excercise 3

In [7]:

```
fig = plt.figure()
ax1 = fig.add_axes([0,0,1,1])
ax2 = fig.add_axes([0.2,0.5,.4,.4])
```



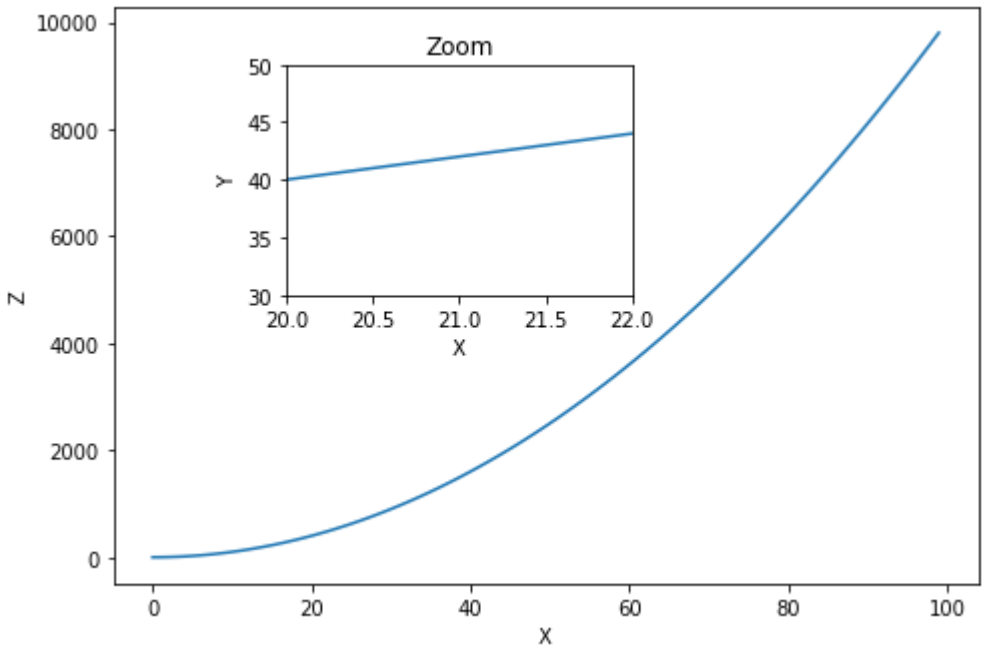
In [8]:

```
ax1.plot(x,z)
ax1.set_xlabel('X')
ax1.set_ylabel('Z')

ax2.plot(x,y)
ax2.set_xlabel('X')
ax2.set_ylabel('Y')
ax2.set_title("Zoom")
ax2.set_xlim(20,22)
ax2.set_ylim(30,50)

fig
```

Out[8]:



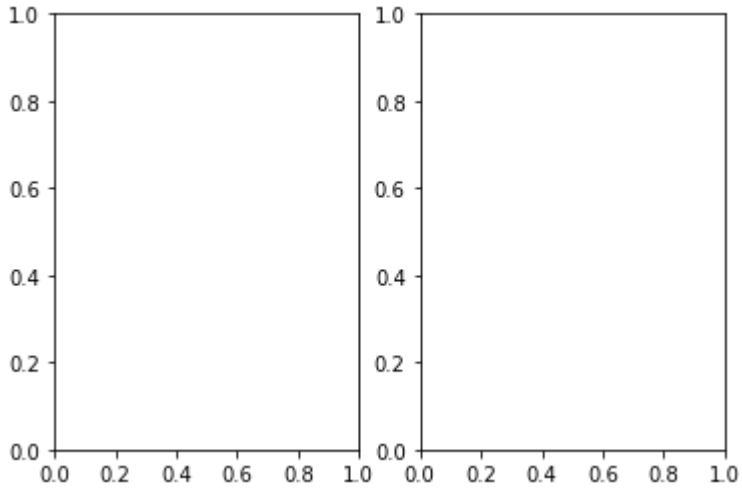

## Excercise 4

In [9]:

```
plt.subplots(nrows=1,ncols=2)
```

Out[9]:

```
(<Figure size 432x288 with 2 Axes>,
 array([<matplotlib.axes._subplots.AxesSubplot object at 0x11d4b6518
>,
        <matplotlib.axes._subplots.AxesSubplot object at 0x11d63f128
>],
       dtype=object))
```

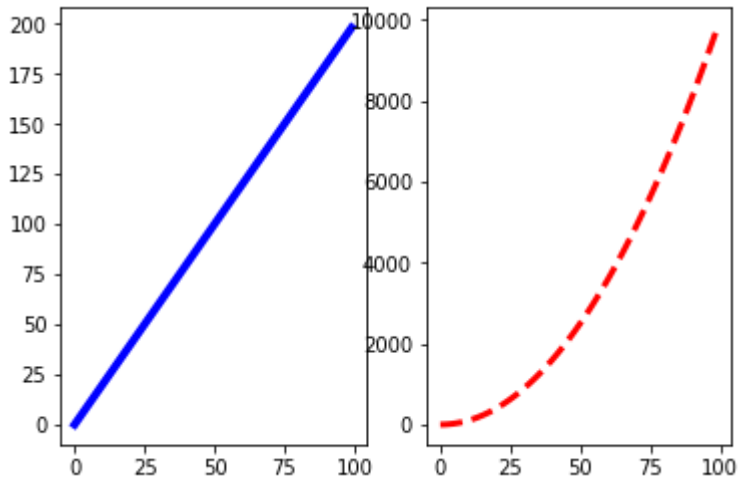



In [10]:

```
fig,axes = plt.subplots(nrows=1,ncols=2)
axes[0].plot(x,y,'b',lw=4)
axes[1].plot(x,z,'r--',lw=3)
```

Out[10]:

```
[<matplotlib.lines.Line2D at 0x11d758ef0>]
```

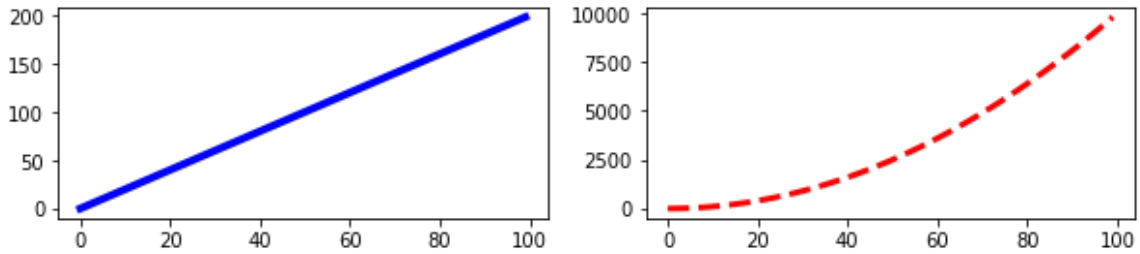


In [11]:

```
fig,axes = plt.subplots(nrows=1,ncols=2,figsize=(10,2))
axes[0].plot(x,y,'b',lw=4)
axes[1].plot(x,z,'r--',lw=3)
```

Out[11]:

```
[<matplotlib.lines.Line2D at 0x11d86b7f0>]
```




In [ ]: