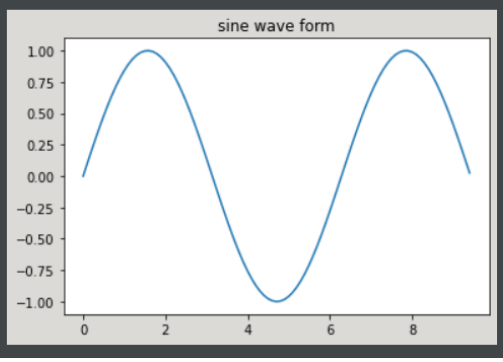
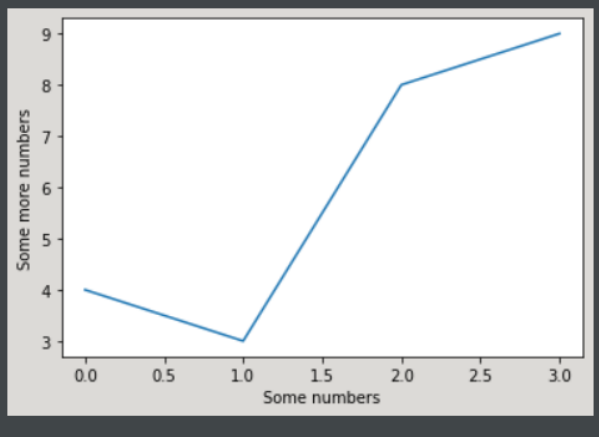
Assignment 6

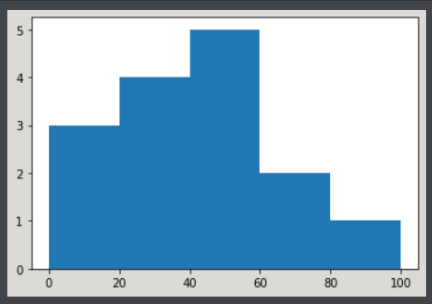
```
import numpy as np
import matplotlib.pyplot as plt
# Compute the x and y coordinates for points on a sine curve
x = np.arange(0, 3 * np.pi, 0.1)
y = np.sin(x)
plt.title("sine wave form")
# Plot the points using matplotlib
plt.plot(x, y)
plt.show()
```



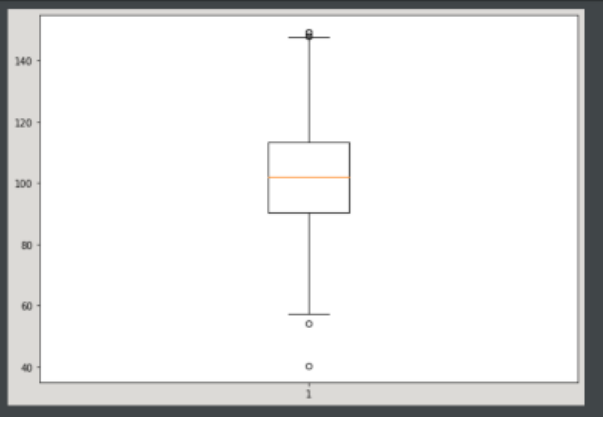

```
[ ]  #Plotting using X axis only
     plt.plot([4,3,8,9])
     plt.xlabel('Some numbers')
     plt.ylabel('Some more numbers')
     plt.show()
```



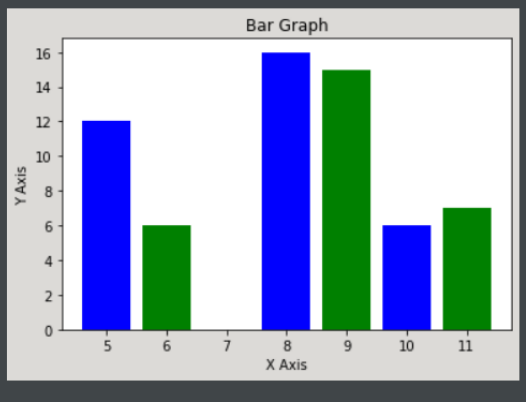

```
[ ]  #Plotting of Histogram
     a = np.array([22, 87, 5, 43, 56, 73, 55, 54, 11, 20, 51, 5, 79, 31, 27])
     plt.hist(a, bins=[0, 20, 40, 60, 80, 100])
     plt.show()
```



```
[ ] import matplotlib.pyplot as plt
    import numpy as np
    np.random.seed(10)
    data = np.random.normal(100, 20, 200)
    fig = plt.figure(figsize =(10, 7))
    plt.boxplot(data)
    plt.show()
```




```
[ ] #Plotting using BAR Graph
    x1 = [5, 8, 10]
    y1 = [12, 16, 6]
    x2 = [6, 9, 11]
    y2 = [6, 15, 7]
    plt.bar(x1, y1, color = 'b')
    plt.bar(x2, y2, color = 'g', align='center')
    plt.title('Bar Graph')
    plt.ylabel('Y Axis')
    plt.xlabel('X Axis')
    plt.show()
```




```
labels = ['Politics', 'Science', 'History', 'Heritage']
interest = [15, 30, 45, 10]
fig1, ax1 = plt.subplots()
ax1.pie(interest, labels=labels)
plt.show()
```