Program1:

```
import matplotlib.pyplot as plt

import numpy as np

# Generate data for sine wave

x = np.linspace(0, 2 * np.pi, 1000)

y = np.sin(x)

# Plotting the sine wave

plt.plot(x, y, label='Sine Wave')

plt.title("Sine Wave Plot")

plt.xlabel("X axis (radians)")

plt.ylabel("Y axis (sin(x))")

plt.grid(True)

plt.legend()

plt.show()
```

Program2:

```
import matplotlib.pyplot as plt

bins = [140, 145, 150, 156, 162, 168, 173, 178, 184, 190, 195]

people = [2, 5, 15, 31, 46, 53, 45, 28, 21, 4]

plt.hist(bins[:-1], bins=bins, weights=people)

plt.xlabel('Height (cm)')

plt.ylabel('Number of People')

plt.title('Height Histogram')

plt.show()
```

Program 3:

```
import matplotlib.pyplot as plt

x = [5, 7, 8, 7, 2, 17, 2, 9, 4, 11, 12, 9, 6]

y = [99, 86, 87, 88, 111, 86, 103, 87, 94, 78, 77, 85, 86]

plt.scatter(x, y, color='blue')

plt.xlabel('X Values')

plt.ylabel('Y Values')

plt.title('Scatter Plot')

plt.show()
```

Program 4 :

```
import matplotlib.pyplot as plt

values = [35, 25, 25, 15]

labels = ['W', 'X', 'Y', 'Z']

plt.figure(figsize=(6,6))

plt.pie(values, labels=la4bels, autopct='%1.1f%%')

plt.title("Pie Chart for W, X, Y, Z")

plt.show()
```