

1)

```
import matplotlib.pyplot as plt
import numpy as np

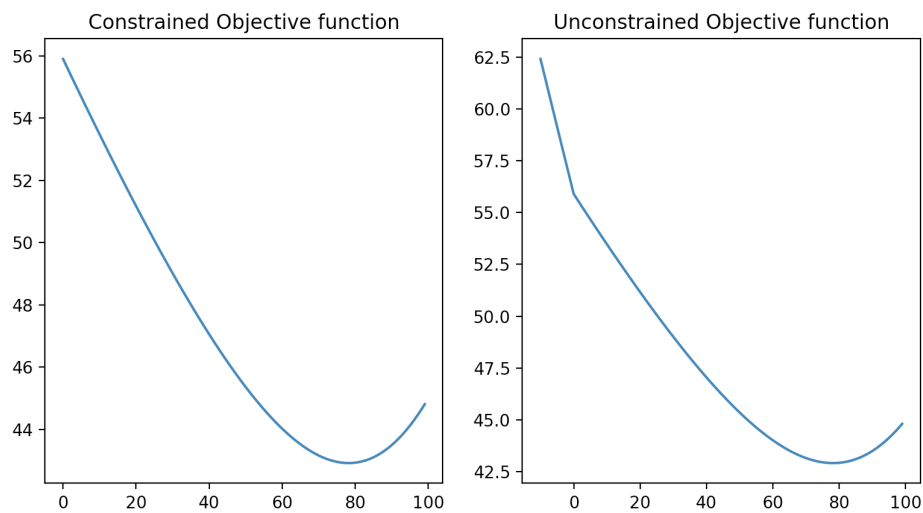
x = np.arange(0, 100)
x_uc = np.arange(-10, 100)

y = x/5 + np.sqrt((100-x)**2 + 50**2)/2
y_uc = np.abs(x_uc)/5 + np.sqrt((100-x_uc)**2 + 50**2)/2

#Plot constrained objective function
plt.subplot(1, 2, 1)
plt.plot(x,y)
plt.title("Constrained Objective function")

#Plot unconstrained objective function
plt.subplot(1, 2, 2)
plt.plot(x_uc, y_uc)
plt.title("Unconstrained Objective function")

plt.show()
```



2)