1. Maximize the following function using **Golden Selection Search**:

Interval: [0,10]

2. Consider the **linear programming** problem:  
Maximize f(x, y) = 6x + 8y  
subject to  
5x + 2y ≤ 40  
6x + 6y ≤ 60  
2x + 4y ≤ 32  
x ≥ 0  
y ≥ 0  
Obtain the solution:  
**(a)** Graphically.  
**(b)** Using the simplex method.