

88. COIN CHANGE PROBLEM

PROGRAM:

```
def coin_change(coins, amount):  
    dp = [float('inf')] * (amount + 1)  
    dp[0] = 0  
  
    for coin in coins:  
        for i in range(coin, amount + 1):  
            dp[i] = min(dp[i], dp[i - coin] + 1)  
  
    return dp[amount] if dp[amount] != float('inf') else -1
```

Example Usage

coins = [1, 2, 5]

amount = 11

print(coin_change(coins, amount)) # Output: 3

OUTPUT:

3

=== Code Execution Successful ===

TIME COMPLEXITY: $O(n*m)$