East West University

Department of Computer Science and Engineering

Course: CSE246 Algorithm Topic: Greedy approach Lab: 02 (Part: 1)

1. Fractional knapsack: Given the weights and profits of N items, in the form of {profit, weight} put these items in a knapsack of capacity W to get the maximum total profit in the knapsack. In Fractional Knapsack, we can break items for maximizing the total value of the knapsack.

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| Sample input | Sample output |
| {60, 10}  {100, 20}  {120, 30}  W = 50 | 240 |

1. Given an array of coins[] of size n and a target value sum, where coins[i] represent the coins of different denominations. You have an infinite supply of each of the coins. The task is to find the minimum number of coins required to make the given value sum. If it’s not possible to make a change, return -1.

Input: coins [] = [9, 6, 5, 1], sum = 19

Output: 3

Explanation: 19 = 9 + 9 + 1