Subset Sum

ZPRAC-16-17-Lab12

SUBSET SUM
[40 Points]

Given a subset of a set, the subset sum for that subset is the sum of all the elements in the set.
Given a set of unique nonnegative n integers, find all the possible subset sums in increasing order. Assume that the subset sum of the null set is 0.

Input: First line contains a number n The second line contains n non-negative integers.

Output: A single line containing all the possible subset sums in increasing order

Examples
3 3 1 2
Output: 1 2 3 4 5 6
Explanation: The possible subsets and their subset sums are: {1} -> 1 {2} -> 2 {3} -> 3 {1,2} -> 3 {1,3} -> 4 {2, 3} -> 5 {1 , 2 ,3} ->6 Hence the possible subset sums are: 0 1 2 3 4 5 6

Contraints: $1 \leq n \leq 15$ $0 \leq eachelementoftheset \leq 100$