M03S02 [Pointers and Functions]: Exercise 03

CS110: Computing Lab
Department of CSE, IIT Guwahati
Jan-May 2018

M03S02E03: Free Avantika

A dacoit named Baahubali abducted a humanist Avantika from village Kuntala. When the people of Kuntala approached Baahubali to free Avantika, he demanded certain amount of money **B** from them, with certain constraint to check their loyalty towards Avantika. The constraint is, each person may donate all of their money or none towards the total demanded amount **B**. No partial amount of money is accepted from any person. Assuming, money of each of the persons is indicated in an array **P** with array index being the person's UID, find the different combination of persons who can free Avantika through money donation. Output the UID of each person in the non-increasing order of their contribution.

Input Format:
In the first line, number of persons in Kuntala are given.
In the second line, total money of each of the persons, **P** is given.
In third line, money demanded by Baahubali, **B** is given.

Output Format:
In each line, UIDs of the persons according to their contributed amount sorted in non-increasing order is provided.

Constraints:
The total population of Kuntala is 200
The money associated with each person is a positive whole number
If none of the money combinations from **P** make to **B**, then output "Avantika can not be freed!"
NOTE: Student must use pointer(s) and function(s) to solve this exercise

Example 1:

Input:
7
10 1 2 7 6 1 5
8

Output:
3 1
3 5
6 2 5
6 2 1
4 2
4 5 1

Explanation:
UIDs of the 7 persons with money 10, 1, 2, 7, 6, 1, 5 is 0, 1, 2, 3, 4, 5, 6 respectively.
Sum 8=7+1 may be contributed by either persons with UIDs (3, 1) or (3,5).
Sum 8=5+2+1 may be contributed by either persons with UIDs (6, 2, 5) or (6, 2, 1)
Sum 8=6+2 may be contributed by persons with UIDs (4, 2)
Sum 8=6+1+1 may be contributed by persons with UIDs (4, 5, 1)