

# Back Calculation or ?

Time Limit: 1s

## Problem Statement:

One day Muntasir and Tasnim were playing with numbers. While playing Muntasir asked Tasnim a simple question. The question was to find out all possible distances from a given set of points. For example the given set of points are 7, 10, 12. So here all possible distances are 3, 5, 2. (For 7, there are two distances, distance from 7 to 10 which is 3 and distance from 7 to 12 which is 5. And for 10, there is only one distance, distance from 10 to 12 which is 2). But Tasnim likes back calculation. So Tasnim began to think how to do the reverse thing, means all possible distances created from a set of points are given and you have to find out the original points that created those distances. Suddenly Tasnim found the answer and asked Muntasir to solve it but Muntasir is weak at back calculation so he needs your help. Can you help Muntasir to solve this problem????

The first line of the input is an integer  **$N(2 < N \leq 300)$**  which denotes number of distances. In the next line there are  **$N$**  number of distances in integer (the maximum value of a distance is 500000). You have to find out the points that create that distances (The value of each point in output is integer and it must be greater than -1 and less than 500001). There can be multiple correct answers so any correct answer is accepted. And of course the correct answer always exists.

## Sample Input:

3

3 5 2

## Sample Output:

7 10 12