F. Crunching Numbers Just for You

You are developing a new feature for the website which sells airline tickets: being able to sort tickets by price! You have already extracted the tickets' prices, so there's just the last step to be done...

You are given an array of integers. Sort it in non-descending order.

Input

The input consists of a single line of space-separated integers. The first number is n $(1 \leq n \leq 10)$ — the size of the array. The following n numbers are the elements of the array $(1 \leq a_i \leq 100)$.

Output

Output space-separated elements of the sorted array.

Example

input
3 3 1 2
output
1 2 3

Note

Remember, this is a very important feature, and you have to make sure the customers appreciate it!