

Sorting

You are given an array of numbers. Sort them. No tricks here. Just sort and print them.

Input

The first line of input contains n ($1 \leq n \leq 100$), the total number of numbers in the array.

The second line contains n numbers, separated by a single space. Each number in the array is between -10^6 to $+10^6$ (inclusive) (32-bit integer type will work fine).

Output

Print a line containing the sorted array of the given numbers. Each number should be separated by a single space.

Example

Input

5

9 8 7 6 5

Output

5 6 7 8 9