Fear of Three for Ross 200 points

You know what? Ross had three marriages. All unsuccessful :D Because of this, he is angry with everyone. Whenever he gets a list of numbers during his research work, he wants to remove the maximum 3 numbers out of it to show his anger. He asked you to write a program for him, that takes a list of numbers and prints the 3 maximum numbers in it in non-increasing order.

Input

First line will contain "N" the number of elements in the list. Next Line will contain "N" integers.

Output

The only line of output should contain 3 integers, that are maximum in the list in non-increasing order.

Constraints

3 <= N <= 100

Numbers in the list can be between 1 and 1000 inclusive.

Example

Input:
8
7 3 2 5 1 8 6 7

Output:
8 7 7