Given an array of stick lengths, use **3** of them to construct a <u>non-degenerate triange</u> with the maximum possible perimeter. Print the lengths of its sides as **3** space-separated integers in non-decreasing order.

If there are several valid triangles having the maximum perimeter:

- 1. Choose the one with the *longest maximum side*.
- 2. If more than one has that maximum, choose from them the one with the *longest minimum side*.
- 3. If more than one has that maximum as well, print any one them.

If no non-degenerate triangle exists, print -1.

For example, assume there are stick lengths sticks = [1, 2, 3, 4, 5, 10]. The triplet (1, 2, 3) will not form a triangle. Neither will (4, 5, 10) or (2, 3, 5), so the problem is reduced to (2, 3, 4) and (3, 4, 5). The longer perimeter is 3 + 4 + 5 = 12.

Function Description

Complete the *maximumPerimeterTriangle* function in the editor below. It should return an array of **3** integers that represent the side lengths of the chosen triangle in non-decreasing order.

maximumPerimeterTriangle has the following parameter(s):

• *sticks*: an integer array that represents the lengths of sticks available

Input Format

The first line contains single integer *n*, the size of array *sticks*.

The second line contains n space-separated integers sticks[i], each a stick length.

Constraints

- $3 \le n \le 50$
- $1 \le sticks[i] \le 10^9$

Output Format

Print the lengths of the **3** chosen sticks as space-separated integers in *non-decreasing* order.

If no non-degenerate triangle can be formed, print -1.

Sample Input 0

5 1 1 1 3 3

Sample Output 0

1 3 3

Explanation 0

There are **2** possible unique triangles:

- 1. (1, 1, 1)
- 2. (1,3,3)

The second triangle has the largest perimeter, so we print its side lengths on a new line in non-decreasing order.

Sample Input 1

3 1 2 3

Sample Output 1

- 1

Explanation 1

The triangle (1, 2, 3) is degenerate and thus can't be constructed, so we print -1 on a new line.

Sample Input 2

6 1 1 1 2 3 5

Sample Output 2

1 1 1

Explanation 2

The triangle (1,1,1) is the only valid triangle.