Given an array of stick lengths, use 3 of them to construct a non-degenerate triange 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

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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 nondecreasing order.

### Sample Input 1

1 2 3

#### **Sample Output 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.