A. Bad Triangle

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given an array $a_1, a_2, \ldots, a_n$, which is sorted in non-decreasing order ($a_i \le a_{i+1}$).

Find three indices i, j, k such that $1 \le i < j < k \le n$ and it is **impossible** to construct a non-degenerate triangle (a triangle with nonzero area) having sides equal to a_i, a_j and a_k (for example it is possible to construct a non-degenerate triangle with sides 3, 4 and 5 but impossible with sides 3, 4 and 7). If it is impossible to find such triple, report it.

Input

The first line contains one integer t ($1 \le t \le 1000$) — the number of test cases.

The first line of each test case contains one integer n ($3 \le n \le 5 \cdot 10^4$) — the length of the array a.

The second line of each test case contains n integers $a_1, a_2, \ldots, a_n$ ($1 \le a_i \le 10^9$; $a_{i-1} \le a_i$) — the array a.

It is guaranteed that the sum of n over all test cases does not exceed 10^5.

Output

For each test case print the answer to it in one line.

If there is a triple of indices i, j, k ($i < j < k$) such that it is **impossible** to construct a non-degenerate triangle having sides equal to a_i, a_j and a_k, print that three indices in ascending order. If there are multiple answers, print any of them.

Otherwise, print `-1`.

Example

input Copy

```
3
7
4 6 11 11 15 18 20
4
10 10 10 11
3
1 1 1000000000
```

output Copy

```
2 3 6
-1
1 2 3
```

Note

In the first test case it is impossible with sides 6, 11 and 18. Note, that this is not the only correct answer.

In the second test case you always can construct a non-degenerate triangle.