

If Only I Could Read

The *median* of an array B of length $2M$ is defined as follows:

- Sort B in non-decreasing order.
- The median of B is then defined to be the element B_M , after sorting.

That is, the median of B is obtained by sorting it in non-decreasing order and then taking the left of the two middle elements.

For example, if $B = [2, 5, 1, 2, 4, 3]$, the sorted array is $[1, 2, 2, 3, 4, 5]$ and the median is 2.

Today, Chef learned about the definition of median - but he wasn't paying attention and **missed the fact that the array must be sorted first!**

So, Chef thinks that the median of an array B of length $2M$, is simply the element B_M (without sorting it).

You would like to help Chef realize his mistake by providing him with an example.

You have with you an array A of length N .

Find any non-empty **contiguous subarray**[†] of A of *even length*, such that Chef's definition of median and the true definition of median give different results when applied to this subarray.

It is possible that no valid subarray exists, in which case you must output -1 .

[†] A contiguous subarray of A is obtained by deleting some (possibly none) elements both from the front and the back of A . For example, if $A = [1, 4, 3, 3, 5]$, some examples of its contiguous subarrays are $[1, 4, 3, 3, 5]$, $[4, 3]$, $[5]$, $[1, 4, 3, 3]$. On the other hand $[1, 3, 5]$ and $[4, 1]$ are *not* subarrays of A .

Input Format

- The first line of input will contain a single integer T , denoting the number of test cases.
- Each test case consists of two lines of input.
 - The first line of each test case contains a single integer N — the length of the array.
 - The second line contains N space-separated integers A_1, A_2, \dots, A_N .

Output Format

For each test case, on a new line:

- If there does not exist any even-length subarray for which Chef's definition of median is different from the true definition of median, output the single integer -1 .
- Otherwise, output two space-separated integers L and R , denoting the bounds of the subarray you found. The subarray in question is $[A_L, A_{L+1}, \dots, A_R]$. Note that this must be an even-length subarray, i.e. $(R - L + 1)$ must be even.

If there are multiple possible solutions, any of them will be accepted.