

Partition Point in the Array

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Given an unsorted array of integers. Find an element such that all the elements to its left are smaller and to its right are greater. Print -1 if no such element exists. Note that there can be more than one such element. In that case print the first such number occurring in the array.

Input:

The first line of input contains an integer T denoting the number of test cases. Each test case contains an integer n which denotes the number of elements in the array $a[]$. Next line contains space separated n elements in the array $a[]$.

Output:

Print an integer which is the required partition point. (-1 if no such partition exists)

Constraints:

$1 \leq T \leq 100$

$1 \leq n \leq 1000$

$1 \leq a[i] \leq 10000$

Example:

Input:

2

7

4 3 2 5 8 6 7

7

5 6 2 8 10 9 8

Output:

5

-1