

Given An Array Of Integers, Your Task Is To Find The Second Largest Element Present In The Array.

Note:

- a) Duplicate elements may be present.
- b) If no such element is present return -1.

Example:

Input:

Given a sequence of five numbers 2, 4, 5, 6, 8.

Output: 6

Explanation:

In the given sequence of numbers, number 8 is the largest element, followed by number 6 which is the second-largest element. Hence we return number 6 which is the second-largest element in the sequence.

Input Format:

The first line of input contains an integer 'T' denoting the number of test cases. The next '2*T' lines represent the 'T' test cases.

The first line of each test case contains an integer 'n' denoting the number of elements in the array.

The second line of each test case contains 'n' space-separated integers denoting the elements in the array.

Output Format:

For each test case, return the second largest element in the array.

Constraints:

$1 \leq T \leq 100$
 $1 \leq n \leq 5000$
 $-10^9 \leq \text{size} \leq 10^9$

Where 'T' is the total number of test cases, 'n' denotes the number of elements in the array and 'size' denotes the range of the elements in the array.

Time limit: 1 second

Sample Input 1:

```
2
6
12 1 35 10 34 1
5
10 10 10 10 10
```

Sample Output 1:

```
34
-1
```

Explanation Of Sample Input 1:

Test case 1: In the given sequence of numbers, number 35 is the largest element, followed by number 34 which is the second-largest element. Hence we return number 34 which is the second-largest element in the sequence.

Test case 2: In the given sequence of numbers, number 10 is the largest element. However, since all the elements are the same, the second largest element does not exist. So, we return -1.

Sample Input 2:

```
1
6
7 8 8 1 4 3
```

Sample Output 2:

```
7
```

Explanation Of Sample Input 2:

In the given sequence of numbers, 8 exists two times and is the largest element, followed by 7 which is the second-largest element. Hence we return the number 7 as the second-largest element.