## horizontal line

## **Next smaller of next greater**

# **Problem Statements :**

Given array of integer, find the next smaller of [next greater element](https://www.geeksforgeeks.org/next-greater-element/) of every element in array.

# **Input Format :**

First line contains integer t which is number of test case.

For each test case, it contains an integer n which is the size of array and next line contains n space separated integers.

**Constraints :**

1<=t<=100

1<=n<=1000

**Output Format :**

Print the next smaller of next greater element of every element in array.

# **Sample Input :**

2

7

5 1 9 2 5 1 7

**Sample Output :**

2 2 -1 1 -1 -1 -1

**Explanation :**

Explanation :   
Next Greater -> next Smaller   
 5 -> 9 9 -> 2   
 1 -> 9 9 -> 2  
 9 -> -1 -1 -> -1  
 2 -> 5 5 -> 1  
 5 -> 7 7 -> -1  
 1 -> 7 7 -> -1  
 7 -> -1 -1 -> -1

**Time Limit :**

1 sec.