**Predecessor and Successor :**

There is BST given with root node with key part as integer only. You need to find the inorder successor and predecessor of a given key. In case, if the either of predecessor or successor is not found print -1.

**Input:**  
The first line of input contains an integer T denoting the number of test cases. Then T test cases follow. Each test case contains n denoting the number of edges of the BST. The next line contains the edges of the BST. The last line contains the key.

**Output:**  
Print the predecessor followed by successor for the given key. If the predecessor or successor is not found print -1.

**Constraints:**  
1<=T<=100  
1<=n<=100  
1<=data of node<=100  
1<=key<=100

**Example:  
Input:**  
2  
6  
50 30 L 30 20 L 30 40 R 50 70 R 70 60 L 70 80 R  
65  
6  
50 30 L 30 20 L 30 40 R 50 70 R 70 60 L 70 80 R  
100

**Output:**  
60 70  
80 -1