Ceil The Floor

Given an unsorted array arr[] and an element x, find floor and ceiling of x in arr[0..n-1].

Floor of x is the largest element which is smaller than or equal to x. Floor of x doesn't exist if x is smaller than smallest element of arr[].

Ceil of x is the smallest element which is greater than or equal to x. Ceil of x doesn't exist if x is greater than greates element of arr[].

Examples:

Input : arr[] = {5, 6, 8, 9, 6, 5, 5, 6}

x = 7

Output : Floor = 6

Ceiling = 8

Input : arr[] = {5, 6, 8, 9, 6, 5, 5, 6}

x = 10

Output : Floor = 9

Ceil doesn't exist.

Input : arr[] = {5, 6, 8, 9, 6, 5, 5, 6}

x = 2

Output : Floor doesn't exist

Ceil = 5

Example:

Input:

The first line of input contains an integer T denoting the Test cases. Then T test cases follow.

First line contains no. of array elements - N and value of x Second line contains array elements A[i]

Output:

Floor and Ceil Value of x

Constraints:

 $1 \le T \le 100$

```
1 \le N, x \le 10^5
0 \le A[i] \le 10^6
```

Input:

2 8 2 56986556 11 264 147 154 383 223 345 30 376 111 33 186 72

Output: Floor doesn't exist 5 223 345