

First and last occurrences of x

Sunday, December 19, 2021 2:42 PM

First and last occurrences of x

Basic Accuracy: 53.04% Submissions: 43233 Points: 1

Given a sorted array **arr** containing **n** elements with possibly duplicate elements, the task is to find indexes of first and last occurrences of an element **x** in the given array.

Example 1:

Input:

n=9, x=5

arr[] = { 1, 3, 5, 5, 5, 5, 67, 123, 125 }

Output: 2 5

Explanation: First occurrence of 5 is at index 2 and last occurrence of 5 is at index 5.

Example 2:

Input:

n=9, x=7

arr[] = { 1, 3, 5, 5, 5, 5, 7, 123, 125 }

Output: 6 6

Your Task:

Since, this is a function problem. You don't need to take any input, as it is already accomplished by the driver code. You just need to complete the function **find()** that takes **array arr**, **integer n** and **integer x** as parameters and returns the required answer.

Note: If the number **x** is not found in the array just return both index as -1.

Expected Time Complexity: $O(\log N)$

Expected Auxiliary Space: $O(1)$.

Constraints:

$1 \leq N \leq 10^7$