https://panchalprogrammingacademy.github.io/course-problem-deck/#/problem/601403eb6173000015944483

Binary Search

80 POINTS

Given an array *A* arranged in non-decreasing order and a *key* find the index of the given *key* in the array *A* using the binary search algorithm.

Input format:
First line of input contains a single integer *N* denoting the number of elements in the array.
Next line of input contains *N* space separated integers in non-decreasing order.
Final line of input contains a single integer *key* to be searched in the given array.

Output format:
A single line of integer denoting the index of the *key* in the given array *A* as discovered by *BINARY SEARCH ALGORITHM*.
If *key* do not exist in the array then print -1

Constraints:
(i) $0 \leq N \leq 10^5$
(ii) $0 \leq array[i] \leq 10^9$

Test Case - 1
5
1 2 3 4 5
3
2

Test Case - 2
5
1 2 3 4 5
10
-1

Test Case - 3
5
5 8 8 12 14
8
2

Problem tags:

THE COMPLETE C COURSE ARRAYS MEDIUM