

<https://course.acciojob.com/idle?question=20fa7e46-1f7f-438a-8744-ec3d92f284d6>

- EASY
- Max Score: 30 Points

Search in bitonic array

Given a zero based Bitonic array `arr` of size `N`. You need to find the index of the `target` value in the array `arr`, if it is present else -1.

Note

A Bitonic Sequence is a sequence of numbers which is first strictly increasing then after a point strictly decreasing.

Input Format

The first line of input contains a single integer representing `N`.

The second line of input contains `N` space separated integer representing array element.

The third line of input contains the `target`, element to be searched in the array.

Output Format

Return the position of `target` value in the array if present else -1.

Example 1

Input

```
7
-3 9 18 20 17 5 1
20
```

Output:

3

Explanation:

Element 20 is found at index 3.

Example 2

Input

```
3
3 4 1
5
```

Output:

-1

Explanation:

Element 5 can not be found in the array so we output -1.

Constraints

$1 \leq N \leq 10^5$

$-10^6 \leq \text{arr}[i] \leq 10^6$

Topic Tags

- Binary Search
- Arrays

My code

// in java

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        int arr[]=new int[n];
        for(int i=0;i<n;i++)
            arr[i]=s.nextInt();
        int target=s.nextInt();
        for(int i=0;i<n;i++)
            if(arr[i]==target)
            {
                System.out.print(i);
                return;
            }
        System.out.print("-1");
    }
}
```