こ と

possible ans por Silve ans - 2 1 2 3 3 3 4 3 it (arr [mia] == to) g 3 else it (antmia) char) s 3 else que mid-1;

```
int tar = sc.nextInt();
  int first = lastOccurance(arr,tar,true);
  int last = lastOccurance(arr,tar,false);
  System.out.println(first);
  System.out.println(last);
blic static int lastOccurance(int[] arr,int tar,boolean
  int start=0,end = arr.length-1;
  int ans=-1;
  while(start<=end){</pre>
      int mid = (start+end)/2;
      if(arr[mid]==tar){
          ans=mid;
         if(check){
             end = mid-1;
         }else{
             start = mid+1;
      else if(arr[mid]<tar){</pre>
          start=mid+1;
      }else{
          end = mid-1;
```

Find Last Occurrence

Language: Java 7

y Open in editor

```
1 import java.jo.*:
 2 import java.util.*;
 3 import java.text.*;
 4 import java.math.*;
 5 import java.util.regex.*;
 7 public class Solution {
 8
 9
       public static void main(String[] args) {
           /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
10
           Scanner sc = new Scanner(System.in);
11
12
           int n = sc.nextInt();
13
           int[] arr = new int[n];
14
           for(int i=0;i<n;i++){
15
               arr[i] = sc.nextInt();
16
           int tar = sc.nextInt();
17
           int ans = lastOccurance(arr,tar);
18
19
           System.out.println(ans);
20
21
      public static int lastOccurance(int[] arr,int tar){
22
           int start=0,end = arr.length-1;
23
           int ans=-1;
24
           while(start<=end){
25
               int mid = (start+end)/2;
26
               if(arr[mid] == tar){
27
                   ans=mid:
28
                   start=mid+1;
29
30
               else if(arr[mid]<tar){
31
                   start=mid+1;
32
               }else{
33
                   end = mid-1;
34
35
36
           return ans;
37
38 }
```

5 6 7 8 9 10 1 2 8

HW_Find Element in Rotated Array

```
1 import java.io.*;
 2 import java.util.*;
 3 import java.text.*:
 4 import java.math.*;
 5 import java.util.regex.*:
 7 public class Solution {
8
       public static void main(String[] args) {
10
           /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11
            Scanner sc = new Scanner(System.in);
12
           int n = sc.nextInt():
13
           int[] arr = new int[n];
14
           for(int i=0:i<n:i++){
15
               arr[i] = sc.nextInt();
16
17
           int tar = sc.nextInt();
18
           System.out.println(findElement(arr,tar));
19
20
       public static int findElement(int[] arr,int tar){
21
           int start=0, end = arr.length-1;
22
           while(start<=end){
23
               int mid = (start+end)/2;
24
                if(arr[mid]==tar){
25
                    return mid;
26
27
               else if(arr[start] <= arr[mid]) {
28
                   if(arr[start]<=tar && arr[mid]>tar){
                       end = mid-1;
30
                   }else{
31
                       start = mid+1;
33
34
               elsef
35
                   if(arr[end]>=tar && arr[mid]<tar){
36
                        start = mid+1;
37
38
                   }else{
39
                      end = mid-1;
40
41
42
43
           return -1;
```

5 1 2 3 4 01254

Sample Output 0

0

while (Sczend) &

intovid = 8 tend)/2

16 (ars(mid) x or[mid+1)} redown mid;

else it (908 [mid] >= 9805

Find The Index of Rotation

```
1 import java.jo.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
7 public class Solution {
       public static void main(String[] args) {
          /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your
10
            Scanner sc = new Scanner(System.in);
11
12
           int n = sc.nextInt();
13
           int[] arr = new int[n];
14
           for(int i=0;i<n;i++){
15
               arr[i] = sc.nextInt();
16
17
           System.out.println(findIndex(arr));
18
       static int findIndex(int[] arr){
19
20
           int start=0, end = arr.length-1;
21
           while(start<=end){
22
               int mid = (start+end)/2;
23
               if(arr[mid]>arr[mid+1]){
24
                   return mid;
25
               }else if(arr[mid]>= arr[0]){
26
                   start = mid+1;
27
28
               else{
29
                   end = mid-1;
30
31
32
           return -1;
33
```