```java
public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    int n = sc.nextInt();
    int[] arr = new int[n];
    for(int i = 0; i < n; i++) {
        arr[i] = sc.nextInt();
    }
    int[] temp = new int[n];
    for(int i = 0; i < n; i++) temp[i] = arr[i];
    int target = sc.nextInt();
    Arrays.sort(temp);
    int lo = 0, hi = n - 1;
    while(true) {
        int mid = (lo + hi) / 2;
        if (temp[mid] == target) {
            System.out.println(find(temp[mid], arr) + " " + find(temp[mid], arr));
            return;
        }
        else if(temp[mid] < temp[hi] < target) lo ++;
        else hi --;
    }
}

public static int find(int num, int[] arr) {
    for(int i = 0; i < arr.length; i ++) {
        if(arr[i] == num) return i;
    }
    return -1;
}
```

Clean in the cloud section

$\boxed{\text{n log n}}$ $\Rightarrow$

$\boxed{245 \text{ ms}}$