import java.awt.image.AreaAveragingScaleFilter;  
import java.util.\*;  
  
public class Latihan1 {  
 private static void bubbleSort(ArrayList<Integer> arr) {  
 int n = arr.size();  
 int temp = 0;  
 for(int i=0; i < n; i++){  
 for(int j=1; j < (n-i); j++){  
 if(arr.get(j-1) > arr.get(j)){  
 temp = arr.get(j-1);  
 arr.set(j-1) = arr.get(j);  
 arr.set(j) = temp;  
 }  
 }  
 }  
 }  
  
 public static void main(String[] args){  
 Scanner sc = new Scanner(System.*in*);  
 ArrayList<Integer> bilangan = new ArrayList<Integer>();  
*// int bilangan[] ={21,23,26,12,15};* int target = 0;  
 int left=0;  
 int middle;  
 int right = bilangan.size()-1;  
  
 System.*out*.print("Masukan Jumlah Data :");  
 int jm = sc.nextInt();  
 for(int i=0;i<jm;i++){  
 System.*out*.print("Data ke"+(i+1)+":");  
 int dt = sc.nextInt();  
 bilangan.add(dt);  
 }  
 System.*out*.println("Hasil ArrayList :" + bilangan);  
  
 System.*out*.println("--------------------------");  
 System.*out*.println("Sebelum Dilakukan Sorting");  
 System.*out*.print("Data : ");  
 for(int i=0; i < bilangan.size(); i++){  
 System.*out*.print(bilangan[i] + " ");  
 }  
 System.*out*.println();  
 *//method shorting  
  
 bubbleSort*(bilangan);  
 System.*out*.println("--------------------------");  
 System.*out*.println("Sesudah Dilakukan Sorting");  
 System.*out*.println("--------------------------");  
 System.*out*.print("Data : ");  
 for(int i=0; i < bilangan.size(); i++){  
 System.*out*.print(bilangan[i] + " ");  
 }  
 System.*out*.print("\nMasukan Data Yang Di Cari : ");  
 int cr = sc.nextInt();  
 System.*out*.println("--------------------------\n");  
 while(left<= right){  
 middle = (left+right)/2;  
 if(bilangan[middle] == cr){  
 System.*out*.println("23 found at index "+ middle);  
 break;  
 }else if (bilangan[middle]< cr){  
 left = middle+1;  
 }else if (bilangan[middle]> cr){  
 right = middle-1;  
 }  
 }  
 System.*out*.println("--------------------------");  
 }  
  
  
}