Q.1) Accept 10 number in an array. Display all even number at the beginning and all Odd at the end. Use only one loop

```
import java.util.*;
class Main {
   public static void main(String[] args) {
      int n=10;
      int[] arr=new int[n];
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter 10 numbers: ");
      for(int i=0;i<n;i++)
      {
         arr[i]=sc.nextInt();
      }
      int[] newa=new int[n];
      int left=0;
      int right=arr.length-1;
      for(int i=0;i<n;i++)
      {
         if(arr[i]%2==0)
         {
            newa[left++]=arr[i];
         }
         else if(arr[i]%2!=0)
         {
            newa[right--]=arr[i];
         }
      }
      for(int ele:newa)
         System.out.print(ele+"  ");
   }
}
```

Q.2) Accept 5 number in an array and sort it. Accept a number from user and check if it is there in an array or not use binary search.

```
import java.util.*;
class Main {
   public static void main(String[] args) {
```

```
        int n=5;
        int[] arr=new int[n];
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter 5 numbers: ");
        for(int i=0;i<n;i++)
        {
           arr[i]=sc.nextInt();
        }
        Arrays.sort(arr);

        // for(int a:arr)
        // {
        //     System.out.print(a+"  ");
        // }
        System.out.println("\nEnter the number to be search: ");
        int key=sc.nextInt();
        boolean flag=false;
        int i=0;
        for(i=0;i<n;i++)
        {
           if(arr[i]==key){
              flag=true;
              break;
           }
        }
        if(flag)
        {
           System.out.println("Element found at "+(i+1));
        }
        else{
           System.out.println("Element not found");
        }
     }
}
```