1.

```java
import java.util.Scanner;

public class assign {

    static int[] findTwoElement(int arr[], int n) {

        int copy=-1, missing=-1;

        for(int i=0;i<n;i++)
        {
            if(arr[Math.abs(arr[i])-1]<0)
            {
                copy=Math.abs(arr[i]);
            }
            else
            {
                arr[Math.abs(arr[i])-1]*=-1;
            }
        }

        for(int i=0;i<n;i++)
        {
            if(arr[i]>0) missing=i+1;
        }
```

```java
        int[] ans=new int[2];

        ans[0]=copy;
        ans[1]=missing;

        return ans;
    }
    public static void main(String[] args) {

        Scanner scan=new Scanner(System.in);

        int n=scan.nextInt();

        int[] arr=new int[n];

        for(int i=0;i<n;i++)
        {
            arr[i]=scan.nextInt();
        }

        int[] ans=new int[2];

        ans=findTwoElement(arr, n);
```

```java
        for(int i=0;i<2;i++)
        {
            System.out.println(ans[i]+" ");
        }

    }
}


2.
import java.util.Scanner;

public class assign {

    static int[] find(int arr[], int n, int x) {
        int low=0, high=n-1, mid=0, ans1=-1;
        int[] ans=new int[2];

        while(low<=high)
        {
            mid=low+(high-low)/2;

            if(arr[mid]>=x)
            {
                if(arr[mid]==x) ans1=mid;
                high=mid-1;
```

```
        }
        else
        {
            low=mid+1;
        }
    }

if(ans1==-1)
{
    ans[0]=-1;
    ans[1]=-1;

    return ans;
}

low=0;
high=n-1;
int ans2=-1;

while(low<=high)
{
    mid=low+(high-low)/2;

    if(arr[mid]>x)
    {
```

```java
                high=mid-1;
            }
            else
            {
                if(arr[mid]==x) ans2=mid;
                low=mid+1;
            }
        }


        ans[0]=ans1;
        ans[0]=ans2;


        return ans;
    }
    public static void main(String[] args) {

        Scanner scan=new Scanner(System.in);

        int n=scan.nextInt();
        int x=scan.nextInt();

        int[] arr=new int[n];

        for(int i=0;i<n;i++)
        {
```

```java
            arr[i]=scan.nextInt();
        }


        int[] ans=new int[2];


        ans=find(arr, n, x);


        for(int i=0;i<2;i++)
        {
            System.out.println(ans[i]+" ");
        }


    }
}


3.
import java.util.Scanner;

public class assign {

    static void rearrange(long arr[], int n) {

        long num=10000007, val=0;
        int index=-1;
```

```
for(int i=0;i<n;i++)
{
    index=index+2;
    if(index>= n) break;

    val=arr[i]%num;

    arr[index]=arr[index]+ val*num;
}

index=-2;

for(int i=n-1;i>=0;i--)
{
    index+=2;

    if(index>=n) break;

    val=arr[i]%num;

    arr[index]=arr[index]+val*num;
}


for(int i=0;i<n;i++)
```

```java
        {
            arr[i]=arr[i]/num;
        }


        for(int i=0;i<n;i++)
        {
            System.out.println(arr[i]+" ");
        }
    }
    public static void main(String[] args) {

        Scanner scan=new Scanner(System.in);

        int n=scan.nextInt();

        long[] arr=new long[n];

        for(int i=0;i<n;i++)
        {
            arr[i]=scan.nextLong();
        }
        rearrange(arr, n);

    }
}
```

4.

```java
import java.util.Scanner;

public class assign {

    static int kthElement(int arr1[], int arr2[], int n, int m, int k)
    {
        int f=0, l=0;

        while(f<n && l<m)
        {
            if(f+l==k-1) return Math.min(arr1[f], arr2[l]);

            if(arr1[f]<=arr2[l]) f++;
            else l++;
        }

        while(f<n)
        {
            if(f+l==k-1) return arr1[f];
            f++;
        }

        while(l<m)
```

```java
    {
        if(f+l==k-1) return arr2[l];
        l++;
    }


    return 0;
}
public static void main(String[] args) {

    Scanner scan=new Scanner(System.in);

    int n=scan.nextInt();
    int m=scan.nextInt();
    int k=scan.nextInt();

    int[] arr1=new int[n];
    int[] arr2=new int[n];

    for(int i=0;i<n;i++)
    {
        arr1[i]=scan.nextInt();
    }

    for(int i=0;i<m;i++)
    {
```

```java
            arr2[i]=scan.nextInt();
        }


        int ans=kthElement(arr1, arr2, n, m, k);
        System.out.println(ans+" ");


    }
}
```