**2(a)**

import java.util.\*;

public class task2a {

public static int[][] intervalIntersection(int[][] firstList, int[][] secondList) {

List<int[]> result = new ArrayList<>();

int i = 0, j = 0;

while (i < firstList.length && j < secondList.length) {

int start = Math.max(firstList[i][0], secondList[j][0]);

int end = Math.min(firstList[i][1], secondList[j][1]);

if (start <= end) {

result.add(new int[]{start, end});

}

if (firstList[i][1] < secondList[j][1]) {

i++;

} else {

j++;

}

}

return result.toArray(new int[result.size()][]);i

}

public static void main(String[] args) {

int[][] firstList = {{1, 3}, {5, 9}};

int[][] secondList = {{2, 5}, {7, 10}};

System.out.println("Intersections:");

for (int[] interval : intersections) {

System.out.println("[" + interval[0] + ", " + interval[1] + "]");

}

}

**2(b)**

import java.util.\*;

public class task2b {

public static void main(String[] args){

Scanner scan = new Scanner(System.in);

int n = 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<n;i++){

arr2[i] = scan.nextInt();

}

int[] merge = new int[n+n];

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

merge[i] = arr1[i];

}

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

merge[n+i] = arr2[i];

}

Arrays.sort(merge);

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

System.out.print(merge[i]+" ");

        }

    }

**2©**

import java.util.\*;

public class task2b {

public static void main(String[] args){

Scanner scan = new Scanner(System.in);

int n = 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<n;i++){

arr2[i] = scan.nextInt();

}

int[] merge = new int[n+n];

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

merge[i] = arr1[i];

}

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

merge[n+i] = arr2[i];

}

Arrays.sort(merge);

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

System.out.print(merge[i]+" ");

        }

    }