

qrr.add(10)



qrr.add(0, 7);



qrr.put(1, 15)



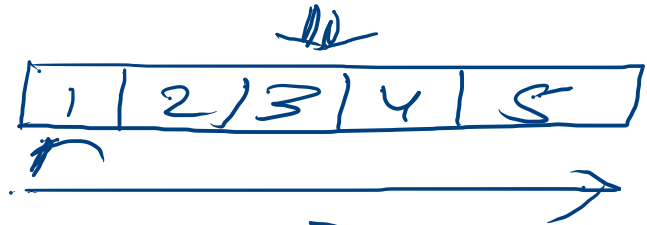
qrr.remove(0) for(int x : qrr) {
 srs(x + " ");
}

s

bike



spots



for (int $q_m = 0$; $q_m < 5$; q_m++)

sys0 (q_m);

5

1 2 3 4 5



Collection

for (int i = n - 1; i >= 0; i--)

5

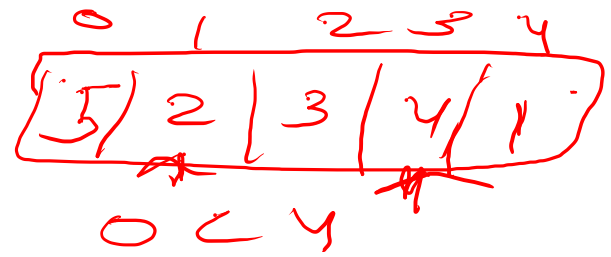
for (_____)

3

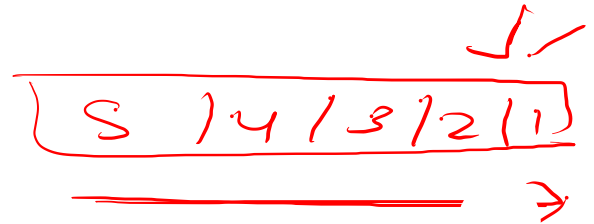
```

public static void reverse(ArrayList<Integer> list){
    int start=0, end = list.size()-1;
    // int temp = list[start];
    // list[start] = list[end];
    // list[end] = temp;
    while(start<end){
        int temp = list.get(start);
        list.set(start,list.get(end));
        list.set(end,temp);
        start++;
        end--;
    }
    // Traditional For loop
    for(int i=0;i<list.size();i++){
        System.out.print(list.get(i)+" ");
    }
    System.out.println();
    // For Each Loop
    for(int x:list){
        System.out.print(x+" ");
    }
}

```



~~temp = 1~~



1 < 3

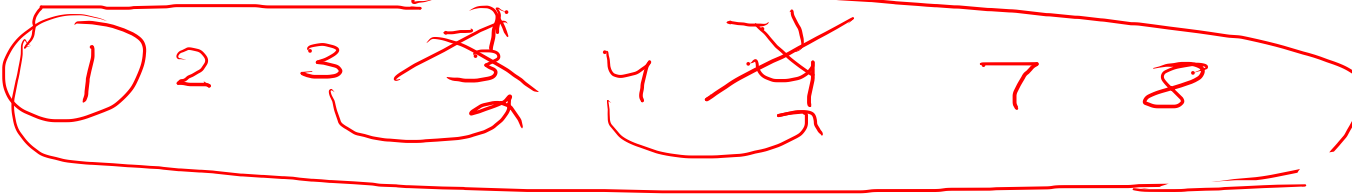


start = 0; 1

end = 4 (3)

4
1 3 3 7
4
2 4 4 8

collection



Arraylist



HashSet

+ remove the duplicates

1 1 1 2 2 3 3 4 4

1 2 3 4

ArrayList Printing

Language: Java 7

[Open in editor](#)

```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11         Scanner sc = new Scanner(System.in);
12         int n = sc.nextInt();
13         ArrayList<Integer> arr = new ArrayList<>();
14         for(int i=0;i<n;i++){
15             arr.add(sc.nextInt());
16         }
17         // Traditional For loop
18         for(int i=0;i<arr.size();i++){
19             System.out.print(arr.get(i)+" ");
20         }
21         System.out.println();
22         // For Each Loop
23         for(int x:arr){
24             System.out.print(x+" ");
25         }
26     }
27 }
```

ArrayList reverse printing

```
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11         Scanner sc = new Scanner(System.in);
12         int n = sc.nextInt();
13         ArrayList<Integer> list = new ArrayList<>();
14         for(int i=0;i<n;i++){
15             list.add(sc.nextInt());
16         }
17         reverse(list);
18     }
19     public static void reverse(ArrayList<Integer> list){
20         int start=0, end = list.size()-1;
21         // int temp = list[start];
22         // list[start] = list[end];
23         // list[end] = temp;
24         while(start<end){
25             int temp = list.get(start);
26             list.set(start,list.get(end));
27             list.set(end,temp);
28             start++;
29             end--;
30         }
31         // Traditional For loop
32         for(int i=0;i<list.size();i++){
33             System.out.print(list.get(i)+" ");
34         }
35         System.out.println();
36         // For Each Loop
37         for(int x:list){
38             System.out.print(x+" ");
39         }
40     }
41 }
42 }
```


Merge two sorted arrays 7

```
10      /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11      Scanner sc = new Scanner(System.in);
12      int n = sc.nextInt();
13      int[] arr1 = new int[n];
14      for(int i=0;i<n;i++){
15          arr1[i]=sc.nextInt();
16      }
17      int m = sc.nextInt();
18      ArrayList<Integer> list = new ArrayList<>();
19      for(int i=0;i<m;i++){
20          list.add(sc.nextInt());
21      }
22      merge(arr1,list);
23  }
24  public static void merge(int[] arr1, ArrayList<Integer> list){
25      int n = arr1.length;
26      int m = list.size();
27      ArrayList<Integer> ans = new ArrayList<>();
28      int ptr1=0;
29      int ptr2=0;
30      while(ptr1<n && ptr2<m){
31          if(arr1[ptr1]<=list.get(ptr2)){
32              ans.add(arr1[ptr1]);
33              ptr1++;
34          }else{
35              ans.add(list.get(ptr2));
36              ptr2++;
37          }
38      }
39      while(ptr1<n){
40          ans.add(arr1[ptr1]);
41          ptr1++;
42      }
43      while(ptr2<m){
44          ans.add(list.get(ptr2));
45          ptr2++;
46      }
47      HashSet<Integer> hs = new HashSet<>();
48      for(int i=0;i<ans.size();i++){
49          hs.add(ans.get(i));
50      }
51      for(int x: hs){
52          System.out.print(x+" ");
53      }
```