import java.util.ArrayList;

import java.util.Scanner;

public class DuplicateInArrayList {

public static void main(String[] args) {

Scanner input = new Scanner(System.in); // create a scanner object

ArrayList<Integer> mylist = new ArrayList<>(); // declare and instantiate an arraylist

System.out.print("Enter numbers (input ends with 0): "); // prompt the user to enter integers

int value; // declare variable value to hold each integer entered by the user

// use a do while loop

do {

value = input.nextInt(); // assign the user entered integer to the variable value

if (value != 0) { // check if user entered 0 or another integer

mylist.add(value); // if the number entered is not 0 then add it to the list

}

} while (value != 0); // as long the number is not 0 keep adding to the list

System.out.print("The distinct numbers are: "); // print the header

removeDuplicate(mylist); // call the removeDuplicate method and pass in the list of number entered by the user

}

public static void removeDuplicate(ArrayList<Integer> list) { // method removeDuplicate

Object[] list2; // declare an array of type object

// invoke list.toArray() method which copies the contents from mylist to list2

//we have two identical lists now called list and list2

list2 = list.toArray();

// use a for each loop to iterate through the list2. if the index of the element in list is

//different to the last index of the same element in list then remove the element from its lastindex

// and repeat that until i reach the end of list2

for (Object thisElement : list2) {

if (list.indexOf(thisElement) != list.lastIndexOf(thisElement)) {

list.remove(list.lastIndexOf(thisElement));

}

}

// use a foreach loop to print out the distinct number from list with a comma separator

for (Integer s : list) {

System.out.print( s + ",");

}

}

}