**Sorting Elements of an Array by Frequency**

Submissions: [22110](https://practice.geeksforgeeks.org/problem_submissions.php?pid=493)  Accuracy:

37.02%

   Difficulty: [Medium](https://practice.geeksforgeeks.org/Medium/0/0/)   Marks: 4

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Given an array of integers, sort the array according to frequency of elements. For example, if the input array is {2, 3, 2, 4, 5, 12, 2, 3, 3, 3, 12}, then modify the array to {3, 3, 3, 3, 2, 2, 2, 12, 12, 4, 5}.

If frequencies of two elements are same, print them in increasing order.

**Input:**

The first line of input contains an integer T denoting the number of test cases. The description of T test cases follows. The first line of each test case contains a single integer N denoting the size of array. The second line contains N space-separated integers A1, A2, ..., AN denoting the elements of the array.

**Output:**

Print each sorted array in a seperate line. For each array its numbers should be seperated by space.

**Constraints:**

1 ≤ T ≤ 70  
30 ≤ N ≤ 130  
1 ≤ A [ i ] ≤ 60

**Example:**

**Input:**

1  
5  
5 5 4 6 4

**Output:**

4 4 5 5 6

\*\* For More Input/Output Examples Use ['Expected Output'](https://practice.geeksforgeeks.org/problems/sorting-elements-of-an-array-by-frequency/0#ExpectOP) option \*\*

[Author: madhuradlakha](https://auth.geeksforgeeks.org/user/madhuradlakha/practice/)

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using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp1

{

class Program

{

static void SortByFrecAndLen(int[] a)

{

Dictionary<int, int> dic = new Dictionary<int, int>();

for(int i =0; i<a.Length; i++)

{

if (dic.ContainsKey(a[i])) dic[a[i]]++;

else dic[a[i]] = 1;

}

var items = from pair in dic

orderby pair.Value descending , pair.Key

select pair;

foreach(var item in items)

{

for (int i = 0; i < item.Value; i++)

{

Console.Write(item.Key + " ");

}

}

Console.WriteLine();

}

static void Main(string[] args)

{

int t = int.Parse(Console.ReadLine());

while (t-- > 0)

{

int n = int.Parse(Console.ReadLine());

int[] arr = Array.ConvertAll(Console.ReadLine().Trim().Split(' '), e => int.Parse(e));

SortByFrecAndLen(arr);

}

Console.ReadLine();

}

}

}