[B - Frequency Sort](https://vjudge.net/problem/HackerRank-si-frequency-sort)

 You are given an array of integers. Sort them by frequency. See examples for more clarifications.

**Input Format**

First line of input contains T - number of test cases. Its followed by 2T lines, the first line contains N - the size of the array. The second line contains the elements of the array.

**Constraints**

1 <= T <= 100  
1 <= N <= 10000  
-1000 <= A[i] <= 1000

**Output Format**

For each test case, print the elements of the array sorted by frequency. In case 2 elements have the same frequency, print the smaller element first.

**Sample Input 0**

2

6

4 -2 10 12 -8 4

8

176 -272 -272 -45 269 -327 -945 176

**Sample Output 0**

-8 -2 10 12 4 4

-945 -327 -45 269 -272 -272 176 176

**Explanation 0**

Self Explanatory

#include <iostream>

#include <vector>

#include <map>

#include <algorithm>

using namespace *std*;

int main(void)

{

*ios\_base*::*sync\_with\_stdio*(false);

*cin*.*tie*(nullptr);

*cout*.*tie*(nullptr);

int t; *cin* >> t;

while (t--)

{

*map*<int, int> mp;

int n; *cin* >> n;

*vector*<int> list(n);

for (auto i = 0; i < n; i++)

{

int ele; *cin* >> ele;

list[i] = ele;

mp[ele] += 1;

}

*sort*(list.*begin*(), list.*end*(), [&](int a, int b) -> bool

{

if (mp[a] == mp[b])

{

if (a < b) return true;

}

return mp[a] < mp[b];

});

for (auto i : list)

*cout* << i << " ";

*cout* << "\n";

}

return 0;

}