**Union of two arrays**

[maths](http://www.practice.geeksforgeeks.org/tag-page.php?tag=maths&isCmp=0)[Rockstand](http://www.practice.geeksforgeeks.org/tag-page.php?tag=Rockstand&isCmp=1)

Given two array A and B, find union between these two array.  If there are repetitions, then only one occurrence of element should be printed in union.

**Input:**

The first line of input contains an integer T denoting the number of test cases.  
The first line of each test case is N and M,N is the size of array A and M is size of array B.  
The second line of each test case contains N input A[i].  
The third line of each test case contains M input B[i].  
  
**Output:**

Print the union of these two array in sorted way.  
  
**Constraints:**

1 ≤ T ≤ 30  
1 ≤ N, M ≤ 1000  
1 ≤ A[i], B[i] < 1000  
  
**Example:**

**Input:**  
2  
5 3  
1 2 3 4 5  
1 2 3

6 2

85 25 1 32 54 6

85 2

**Output:**  
1 2 3 4 5

1 2 6 25 32 54 85

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=537>

#include <iostream>

#include <stdio.h>

#include <vector>

#include <set>

using namespace std;

int main() {

int t;

scanf("%d", &t);

while(t--) {

int n,m;

scanf("%d %d", &n, &m);

std::vector<int> A;

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

int elem;

scanf("%d", &elem);

A.push\_back(elem);

}

std::vector<int> B;

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

int elem;

scanf("%d", &elem);

B.push\_back(elem);

}

std::set<int> u;

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

u.insert(A[i]);

}

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

u.insert(B[i]);

}

for(std::set<int>::iterator it = u.begin(); it != u.end(); it++) {

printf("%d ", \*it);

}

printf("\n");

}

return 0;

}