### Intersection of two arrays( 6 times asked)

Given two arrays **a[]** and **b[]** respectively of size **n** and **m,**the task is to print the count of elements in the intersection (or common elements) of the two arrays.

For this question, the intersection of two arrays can be defined as the set containing distinct common elements between the two arrays.

**Example 1:**

**Input:**

n = 5, m = 3

a[] = {89, 24, 75, 11, 23}

b[] = {89, 2, 4}

**Output:** 1

**Explanation:**

89 is the only element

in the intersection of two arrays.

**Example 2:**

**Input:**

n = 6, m = 5

a[] = {1, 2, 3, 4, 5, 6}

b[] = {3, 4, 5, 6, 7}

**Output:** 4

**Explanation:**

3 4 5 and 6 are the elements

in the intersection of two arrays.

### Java code

//{ Driver Code Starts

// Initial Template for Java

/\*package whatever //do not write package name here \*/

import java.io.\*;

import java.util.\*;

class CodingMaxima {

public static void main(String[] args) {

// Taking input using class Scanner

Scanner sc = new Scanner(System.in);

// Taking count of total testcases

int t = sc.nextInt();

while (t-- > 0) {

int n, m;

// taking count of elements in array a

n = sc.nextInt();

// taking count of elements in array b

m = sc.nextInt();

// Creating 2 arrays of n and m

int a[] = new int[n];

int b[] = new int[m];

// inserting elements to array a

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

a[i] = sc.nextInt();

}

// inserting elements to array b

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

b[i] = sc.nextInt();

}

Solution ob = new Solution();

// calling NumberofElementsInIntersection method

// and printing the result

System.out.println(ob.NumberofElementsInIntersection(a, b, n, m));

}

}

}

// } Driver Code Ends

class Solution {

public static int NumberofElementsInIntersection(int a[], int b[], int n, int m) {

if (a == null || b == null) {

return 0;

}

Set<Integer> setA = new HashSet<>();

Set<Integer> setB = new HashSet<>();

for (int num : a) {

setA.add(num);

}

for (int num : b) {

setB.add(num);

}

int count = 0;

for (int num : setA) {

if (setB.contains(num)) {

count++;

}

}

return count;

}

};