Problem1:

import java.util.\*;

public class DistinctElementsInTwoSets {

public static void findDistinctElements(int [] setOne, int [] setTwo){

System.out.println("Set 1: " + Arrays.toString(setOne) + ", Set 2: " + Arrays.toString(setTwo));

Map<Integer, Integer> map = new HashMap<>();

for (int i = 0; i <setOne.length ; i++) {

int element = setOne[i];

if(map.containsKey(element)) {

int count = map.get(element);

map.put(element, count+1);

}else

map.put(element, 1);

}

for (int i = 0; i <setTwo.length ; i++) {

int element = setTwo[i];

if(map.containsKey(element)) {

int count = map.get(element);

map.put(element, count+1);

}else

map.put(element, 1);

}

//get sum of distinct elements

int sum = 0;

Set<Integer> set = map.keySet();

Iterator<Integer> iterator = set.iterator();

while (iterator.hasNext()){

int key = iterator.next();

if(map.get(key)==1)

sum += key;

}

System.out.println("Distinct Elements Sum : " + sum);

}

public static void main(String[] args) {

int [] setOne = {3, 1, 7, 9};

int [] setTwo = {2, 4, 1, 9, 3};

findDistinctElements(setOne, setTwo);

}

}

Problem2:

// C++ implementation for dot product

// and cross product of two vector.

#include <bits/stdc++.h>

#define n 3

using namespace std;

// Function that return

// dot product of two vector array.

int dotProduct(int vect\_A[], int vect\_B[])

{

    int product = 0;

    // Loop for calculate dot product

    for (int i = 0; i < n; i++)

        product = product + vect\_A[i] \* vect\_B[i];

    return product;

}

// Function to find

// cross product of two vector array.

void crossProduct(int vect\_A[], int vect\_B[], int cross\_P[])

{

    cross\_P[0] = vect\_A[1] \* vect\_B[2] - vect\_A[2] \* vect\_B[1];

    cross\_P[1] = vect\_A[2] \* vect\_B[0] - vect\_A[0] \* vect\_B[2];

    cross\_P[2] = vect\_A[0] \* vect\_B[1] - vect\_A[1] \* vect\_B[0];

}

// Driver function

int main()

{

    int vect\_A[] = { 3, -5, 4 };

    int vect\_B[] = { 2, 6, 5 };

    int cross\_P[n];

    // dotProduct function call

    cout << "Dot product:";

    cout << dotProduct(vect\_A, vect\_B) << endl;

    // crossProduct function call

    cout << "Cross product:";

    crossProduct(vect\_A, vect\_B, cross\_P);

    // Loop that print

    // cross product of two vector array.

    for (int i = 0; i < n; i++)

        cout << cross\_P[i] << " ";

    return 0;

}