CSCE240 Spring 2017: Worksheet 2	8 February 2017

Write the output of the following code:

Main.C

```
#include "prob.h"

int main() {
    int a = 10;
    int b = 10;

    cout << max(a++,
++b) << endl;
    cout << min(a -= 2,
b *= 2) << endl;
}
```

Prob.C

```
#include "prob.h"

//Implement Functions
min and max
int min(int a, int b) {
    if (a < b) {
        return a;
    }
    return b;
}

int max(int a, int b) {
    if (a > b) {
        return a;
    }
    return b;
}
```

Prob.h

```
#include <iostream>
//Including a System
Library
using namespace std;

int max(int, int);
int min(int, int);
```

Write the Output of the Code:

Main.C

```
#include "prob.h"

int main() {
    int a[] = {0,1,2,3,4};
    int a_size = 5;
    int b[] = {5,6,7,8,9};
    int b_size = 5;
    int * c;

    c = sumArray(a, a_size, b, b_size);
    cout << "Array C: ";

    if (c != NULL) {
        for (int i = 0; i < a_size; i++) {
            cout << c[i] << " ";
        }
    }

    cout << endl;

    cout << arraySum(a, a_size) << endl;
//For the Solutions:

    jumbleArrays(a, a_size, b, b_size);

    cout << "Array A: ";
    for (int i = 0; i < a_size; i++) {
        cout << a[i] << " ";
    }
    cout << endl;
    cout << "Array B: ";
    for (int i = 0; i < b_size; i++) {
        cout << b[i] << " ";
```

	`` } cout << endl; cout << "Largest Number: " << largestNumber(a, a_size) << endl; cout << "Smallest Number: " << smallestNumber(a, a_size) << endl; cout << "Array Sum of B: " << arraySum(b, b_size) << endl; } ```
Prob.C	``` #include "prob.h" //Get the sum of the rows of the array and return an array of the sums int* sumArray(const int * a, const int a_size, const int * b, const int b_size) { int * toReturn; if (a_size != b_size) { return NULL; } toReturn = new int[a_size]; for (int i = 0; i < a_size; i++) { toReturn[i] = a[i] + b[i]; } return toReturn; } //Find summ of all the elements in the array int arraySum(const int * a, const int a_size) { int sum = 0; for (int i = 0; i < a_size; i++) { sum += a[i]; } return sum; } ```
Prob.h	``` #include <iostream> //Including a System Library using namespace std; //Get the sum of each row of the array and return an array of the sums int* sumArray(const int * , const int , const int *, const int); int arraySum(const int *, const int); //Write these functions int largestNumber(const int *, const int); int smallestNumber(const int *, const int); //Swaps every other element in the array until it hits the end void jumbleArrays(int *, const int, int *, const int); ```

Write the Function largestNumber() and smallestNumber() and jumbleArrays().