**CS1010 (AY2014/15 Semester 1)**

Mock PE

Q2. **Arrays**

Write a program **reverse.c** to check whether two integers arrays are reverse of each other, and if so, compute the difference in their average values. The difference is an absolute value and is to be displayed in two decimal places.

Negative values in the arrays are to be ignored. You may assume that each array has at least one non-negative element and at most 20 elements.

The table below shows some examples:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Example | Array 1 | Array 2 | Reverse? | Difference in average |
| 1 | 3, 4, -2, 1 | -3, 1, 4, -5, -8, 3 | Yes | - |
| 2 | 7, 6, 7, 1 | 7, 1, 6, 7 | No | 0.00 |
| 3 | 1, -2, -3, 8, 3, 2, -1 | 2, 3, -3, 8, 1, 1 | No | 0.50 |
| 4 | -8, -21, 4, 7, -19, 5 | 12 | No | 6.67 |

Sample runs are shown below. Inputs are shown in bold.

***Sample run #1***

Enter size of 1st array: **4**

Enter element(s): **3 4 -2 1**

Enter size of 2nd array: **6**

Enter element(s): **-3 1 4 -5 -8 3**

They are reverse of each other.

Explanation: Ignoring negative elements, the first array is {3, 4, 1} and the second array is {1, 4, 3}, hence they are reverse of each other.

***Sample run #2***

Enter size of 1st array: **6**

Enter element(s): **-8 -21 4 7 -19 5**

Enter size of 2nd array: **1**

Enter element(s): **12**

They are not reverse of each other.

The difference in averages = 6.67