Dashboard / My courses / CS23331-DAA-2023-CSE / Greedy Algorithms / 5-G-Product of Array elements-Minimum

Started on	Monday, 26 August 2024, 10:46 AM
State	Finished
Completed on	Monday, 26 August 2024, 10:47 AM
Time taken	46 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Given two arrays array_One[] and array_Two[] of same size N. We need to first rearrange the arrays such that the sum of the product of pairs(1 element from each) is minimum. That is SUM (A[i] * B[i]) for all i is minimum.

For example:

Input	Result
3 1 2 3 4 5 6	28

Answer: (penalty regime: 0 %)

```
#include<stdio.h>
#include<stdlib.h>

int compareAsc(const void *a, const void *b) {
    return (*(int*)a - *(int*)b);
}

int compareDesc(const void *a, const void *b) {
    return (*(int*)b - *(int*)a);
}

int main() {
    int n;
    scanf("%d", &n);
    int array_One[n];
    int array_Two[n];
    for(int i = 0; i < n; i++) {
        scanf("%d", &array_One[i]);
    }
    for(int i = 0; i < n; i++) {
        scanf("%d", &array_Two[i]);
    }
    qsort(array_One, n, sizeof(int), compareAsc);
    qsort(array_Two, n, sizeof(int), compareDesc);
    int sum = 0;
    for(int i = 0; i < n; i++) {
        sum += array_One[i] * array_Two[i];
    }
    printf("%d\n", sum);
    return 0;
}

```

	Input	Expected	Got	
✓	3 1 2 3 4 5 6	28	28	✓

	Input	Expected	Got	
✓	4 7 5 1 2 1 3 4 1	22	22	✓
✓	5 20 10 30 10 40 8 9 4 3 10	590	590	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ 4-G-Array Sum max problem

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1-Number of Zeros in a Given Array ►