

[Dashboard](#) / [My courses](#) / [CS23331-DAA-2023-CSE](#) / [Greedy Algorithms](#) / [5-G-Product of Array elements-Minimum](#)

Started on	Tuesday, 1 October 2024, 1:49 PM
State	Finished
Completed on	Tuesday, 1 October 2024, 1:49 PM
Time taken	33 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 $\text{SUM}(A[i] * B[i])$ for all `i` is minimum.

For example:

Input	Result
3 1 2 3 4 5 6	28

Answer: (penalty regime: 0 %)

```

1 |
2 | #include <stdio.h>
3 | #include <stdlib.h>
4 | int compareAsc(const void *a, const void *b) {
5 |     return (*(int*)a - *(int*)b);
6 | }
7 | int compareDesc(const void *a, const void *b) {
8 |     return (*(int*)b - *(int*)a);
9 | }
10 | int main() {
11 |     int N;
12 |     scanf("%d", &N);
13 |     int array_One[N], array_Two[N];
14 |     for (int i = 0; i < N; i++) {
15 |         scanf("%d", &array_One[i]);
16 |     }
17 |     for (int i = 0; i < N; i++) {
18 |         scanf("%d", &array_Two[i]);
19 |     }
20 |     qsort(array_One, N, sizeof(int), compareAsc);
21 |     qsort(array_Two, N, sizeof(int), compareDesc);
22 |     int minSum = 0;
23 |     for (int i = 0; i < N; i++) {
24 |         minSum += array_One[i] * array_Two[i];
25 |     }
26 |     printf("%d\n", minSum);
27 |     return 0;
28 | }
```

	Input	Expected	Got	
✓	3 1 2 3 4 5 6	28	28	✓
✓	4 7 5 1 2 1 3 4 1	22	22	✓

	Input	Expected	Got	
✓	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

Jump to...

1-Number of Zeros in a Given Array ▶