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CS23331-DAA-2024-CSE / 4-G-Array Sum max problem



4-G-Array Sum max problem

Started on	Tuesday, 30 September 2025, 12:04 PM
State	Finished
Completed on	Tuesday, 30 September 2025, 12:05 PM
Time taken	1 min 11 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100 %)

Given an array of N integer, we have to maximize the sum of arr[i] * i, where i is the index of the element (i = 0, 1, 2, ..., N). Write an algorithm based on Greedy technique with a Complexity O(nlogn).

Input Format:

First line specifies the number of elements-n

The next n lines contain the array elements.

Output Format:

Maximum Array Sum to be printed.

Sample Input:

5

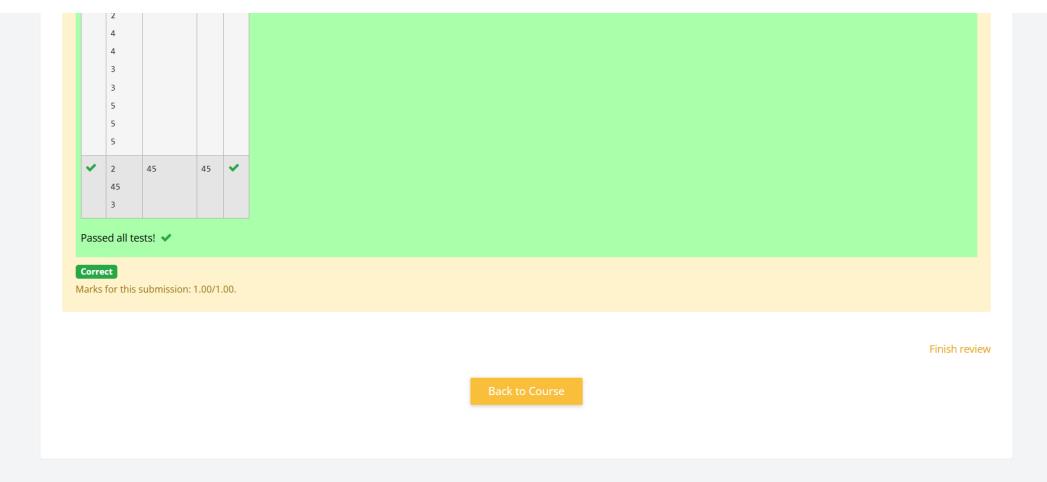
25340

Sample output:

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
 2 #include <stdlib.h>
4 v int cmp_asc(const void *a, const void *b) {
       int x = *(int*)a;
       int y = *(int*)b;
10 v int main() {
       scanf("%d", &n);
       int arr[n];
       for (int i = 0; i < n; i++) {
           scanf("%d", &arr[i]);
       qsort(arr, n, sizeof(int), cmp_asc);
       long long max_sum = 0;
       for (int i = 0; i < n; i++) {
           max_sum += (long long)arr[i] * i;
       printf("%lld\n", max_sum);
       return 0;
28 }
```

	Input	Expected	Got	
~	5	40	40	~
	2			
	5			
	3			
	4			
	0			
~	10	191	191	~
	2			
	2			
	_			



Data retention summary