

RAKSHITA N 2024-IT ▾**R2****Started on** Tuesday, 18 November 2025, 3:14 PM**State** Finished**Completed on** Tuesday, 18 November 2025, 3:15 PM**Time taken** 1 min 11 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 an array of N integer, we have to maximize the sum of $\text{arr}[i] * i$, where i is the index of the element ($i = 0, 1, 2, \dots, N$). Write an algorithm based on Greedy technique with a Complexity $O(n\log n)$.

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

2 5 3 4 0

Sample output:

40

Answer: (penalty regime: 0 %)

```

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

```

	Input	Expected	Got	
✓	5 2 5 3 4 0	40	40	✓

	Input	Expected	Got	
✓	10 2 2 2 4 4 3 3 5 5 5	191	191	✓
✓	2 45 3	45	45	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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