



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 $arr[i] * i$, 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	40	40	✓
	2			
	5			
	3			
	4			
	0			

	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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