

**Started on** Saturday, 30 August 2025, 7:25 PM

**State** Finished

**Completed on** Saturday, 30 August 2025, 7:52 PM

**Time taken** 26 mins 54 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  int main(){
3      int n;
4      scanf("%d",&n);
5      int arr[n];
6      for(int i=0;i<n;i++){
7          scanf("%d",&arr[i]);
8      }
9      for(int i=0;i<n-1;i++){
10         for(int j=i+1;j<n;j++){
11             if(arr[i]>arr[j]){
12                 int temp=arr[i];
13                 arr[i]=arr[j];
14                 arr[j]=temp;
15             }
16         }
17     }
18     long long sum=0;
19     for(int i=0;i<n;i++){
20         sum+=(long long)arr[i]*i;
21     }
22     printf("%lld",sum);
23 }
```

	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.