

**Started on** Saturday, 30 August 2025, 8:37 PM

**State** Finished

**Completed on** Saturday, 30 August 2025, 8:43 PM

**Time taken** 5 mins 25 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 {
4     int n;
5     scanf("%d",&n);
6     int arr[n];
7     for(int i=0;i<n;i++)
8     {
9         scanf("%d",&arr[i]);
10    }
11    for(int i=0;i<n-1;i++)
12    {
13        for(int j=i+1;j<n;j++)
14        {
15            if(arr[i]>arr[j])
16            {
17                int temp=arr[i];
18                arr[i]=arr[j];
19                arr[j]=temp;
20            }
21        }
22    }
23    long long sum=0;
24    for(int i=0;i<n;i++)
25    {
26        sum+=(long long)arr[i]*i;
27    }
28    printf("%lld",sum);
29 }
```

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