

**Started on** Thursday, 28 August 2025, 9:13 PM

**State** Finished

**Completed on** Thursday, 28 August 2025, 9:19 PM

**Time taken** 5 mins 46 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 int cab(const void *a,const void *b)
4 {
5     return (*(int*)a)-*(int*)b);
6 }
7 int main()
8 {
9     int a;
10    scanf("%d",&a);
11    int arr[a];
12    for(int i=0;i<a;i++)
13    {
14        scanf("%d",&arr[i]);
15    }
16    qsort(arr,a,sizeof(int),cab);
17    long long add=0;
18    for(int i=0;i<a;i++)
19    {
20        add+=(long long)arr[i]*i;
21    }
22    printf("%lld\n",add);
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.