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<b>Started on</b>	Friday, 23 August 2024, 2:17 PM
<b>State</b>	Finished
<b>Completed on</b>	Sunday, 17 November 2024, 7:57 AM
<b>Time taken</b>	85 days 17 hours
<b>Marks</b>	1.00/1.00
<b>Grade</b>	<b>10.00</b> out of 10.00 ( <b>100%</b> )

## 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
3  void merge_sort(int a[],int l,int m,int h)
4  {
5      int i, j, k;
6      int n1 = m - l + 1;
7      int n2 = h - m;
8      int a1[n1],a2[n2];
9      for (i = 0; i < n1; i++)
10         a1[i] = a[l + i];
11     for (j = 0; j < n2; j++)
12         a2[j] = a[m + 1 + j];
13
14     i = 0;
15     j = 0;
16     k = l;
17     while (i < n1 && j < n2) {
18         if (a1[i] <= a2[j]) {
19             a[k] = a1[i];
20             i++;
21         }
22         else {
23             a[k] = a2[j];
24             j++;
25         }
26         k++;
27     }
28     while(i<n1){
29         a[k] = a1[i];
30         i++,k++;
31     }
32     while(j<n2){
33         a[k] =a2[j];
34         j++,k++;
35     }
36 }
37
38 void merge(int a[], int l,int h)
39 {
40     int m;
41
42     if(l<h)
43     {
44         m = (l+h)/2;
45         merge(a,l,m);
46         merge(a,m+1,h);
47         merge_sort(a,l,m,h);
48     }
49 }
50

```

51

52

int main()

	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.

◀ 3-G-Burger Problem

Jump to...

5-G-Product of Array elements-Minimum ▶