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, ..., N).Write an algorithm based on Greedy technique with a Complexity O(nlogn).

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 %)

```c
#include <stdio.h>
#include <stdlib.h>
int comp(const void *a, const void *b){
    return (*(int*)a)-(*(int*)b);
}
int main(){
    int n,sum=0;
    scanf("%d", &n);
    int arr[n];
    for(int i=0;i<n; i++){
        scanf("%d", &arr[i]);
    }
    qsort(arr,n,sizeof(int),comp);
    for(int i=0; i<n; i++){
        sum += arr[i]*i;
    }
    printf("%d", sum);
    return 0;
}
```

	Input	Expected	Got	
✔	5 2 5 3 4 0	40	40	✔
✔	10 2 2 2 4 4 3 3 5 5 5	191	191	✔