

## Question 1

Correct

Mark 1.00 out of 1.00

A person needs to eat burgers. Each burger contains a count of calorie. After eating the burger, the person needs to run a distance to burn out his calories.

If he has eaten  $i$  burgers with  $c$  calories each, then he has to run at least  $3^i * c$  kilometers to burn out the calories. For example, if he ate 3

burgers with the count of calorie in the order: [1, 3, 2], the kilometers he needs to run are  $(3^0 * 1) + (3^1 * 3) + (3^2 * 2) = 1 + 9 + 18 = 28$ .

But this is not the minimum, so need to try out other orders of consumption and choose the minimum value. Determine the minimum distance

he needs to run. Note: He can eat burger in any order and use an efficient sorting algorithm. Apply greedy approach to solve the problem.

**Input Format**

First Line contains the number of burgers

Second line contains calories of each burger which is  $n$  space-separated integers

**Output Format**

Print: Minimum number of kilometers needed to run to burn out the calories

**Sample Input**

```
3
5 10 7
```

**Sample Output**

```
76
```

**For example:**

Test	Input	Result
Test Case 1	3 1 3 2	18

**Answer:** (penalty regime: 0 %)

```

1  #include<stdio.h>
2  #include<math.h>
3  int main(){
4      int n,c=0;
5      scanf("%d",&n);
6      int a[100];
7      for(int i=0;i<n;i++){
8          scanf("%d",&a[i]);
9      }
10     int t,j;
11     for(int i=1;i<n;i++){
12         t=a[i];
13         j=i-1;
14         while(j>=0 && a[j]<t){
15             a[j+1]=a[j];
16             j--;
17         }
18         a[j+1]=t;
19     }
20     for(int j=0;j<n;j++){
21         c+=pow(n,j)*a[j];
22     }
23     printf("%d",c);
24 }
25
26
27
```

	Test	Input	Expected	Got	
✓	Test Case 1	3 1 3 2	18	18	✓
✓	Test Case 2	4 7 4 9 6	389	389	✓
✓	Test Case 3	3 5 10 7	76	76	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◀ 2-G-Cookies Problem

Jump to...

4-G-Array Sum max problem ▶