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|---|---|
| **Started on** | Monday, 1 September 2025, 6:47 PM |
| **State** | Finished |
| **Completed on** | Monday, 1 September 2025, 6:55 PM |
| **Time taken** | 8 mins 22 secs |
| **Marks** | 1.00/1.00 |
| **Grade** | **10.00** out of 10.00 (**100**%) |

**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-separate 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<br>1 3 2 | 18 |

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

```
#include <stdio.h>

int main()
{
    int n;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
    }
    int i,j,temp;
    for(i=1;i<n;i++)
    {
        temp=a[i];
        for(j=i;j>0;j--)
        {
            if(a[j-1]<temp)
            a[j]=a[j-1];
            else
            break;
        }
        a[j]=temp;
    }
    long long sum=0;
    long long p=1;
    for(int i=0;i<n;i++)
    {
```

```
        sum+=a[i]*p;
        p=p*n;
    }
    printf("%lld",sum);
    return 0;
}
```

| | Test | Input | Expected | Got | |
|---|---|---|---|---|---|
| ✔ | Test Case 1 | 3<br>1 3 2 | 18 | 18 | ✔ |
| ✔ | Test Case 2 | 4<br>7 4 9 6 | 389 | 389 | ✔ |
| ✔ | Test Case 3 | 3<br>5 10 7 | 76 | 76 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.