


CS23331-DAA-2024-CSE / 3-G-Burger Problem



## 3-G-Burger Problem

Started on	Sunday, 31 August 2025, 3:53 PM
State	Finished
Completed on	Sunday, 31 August 2025, 3:54 PM
Time taken	1 min 12 secs
Marks	0.00/1.00
Grade	0.00 out of 10.00 (0%)

**Question 1** | Incorrect   Mark 0.00 out of 1.00    Flag question

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 1 3 2	18

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int compare(const void *a, const void *b) {
5     return (*(int *)a - *(int *)b);
6 }
7
8 int main() {
9     int n;
10    scanf("%d", &n);
11    int calories[n];
12    for (int i = 0; i < n; i++) {
13        scanf("%d", &calories[i]);
14    }
15
16    qsort(calories, n, sizeof(int), compare);
17    long long totalDistance = 0;
18    for (int i = 0; i < n; i++) {
19        totalDistance += (3 * (i + 1) * calories[i]);
20    }
21
22    printf("%lld\n", totalDistance);
23    return 0;
24 }
25
```

	Test	Input	Expected	Got	
✖	Test Case 1	3	18	42	✖

		1 3 2			
✖	Test Case 3	3 5 10 7	76	147	✖

Some hidden test cases failed, too.

Your code must pass all tests to earn any marks. Try again.

Show differences

**Incorrect**

Marks for this submission: 0.00/1.00.

Finish review

Back to Course

Data retention summary