Description | Hints | Submissions | Discussions | Notes

Reduce the Array AZ101

[illegible]	1 sec	256000KB	100
Difficulty	Time Limit	Memory	Score

80/80 XP | 30/30

Description

You are given an array of N integers. In one operation, remove any two elements in the array and add their sum to the array. The cost of this operation will be the sum of the two elements. Print the minimum cost till the size of the array does not become 1.

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains one integer N - the length of the array.

The second line of each test case contains N space-separated integers.

Output Format

For each test case, print the minimum cost till the size of the array does not become 1.

Constraints

$1 \le T \le 10^6$

$1 \le N \le 10^6$

$1 \le A_i \le 10^9$

It is guaranteed that the sum of N over all test cases does not exceed 10^6.

Sample Input 1

Copy

```
3
4
3 1 4 2
```

C++14 | 00:00:00 | 12 px

```
#include<bits/stdc++.h>
using namespace std;
#define endl "\n"
using lli=long long int;


void solve(){
    priority_queue<lli>pq;
    int n;
    cin>>n;
    for(int i=0;i<n;i++){
        int temp;
        cin>>temp;
        pq.push(-temp);
    }
    lli ans=0;
    while(pq.size()>1){
        lli a=-pq.top();
        pq.pop();
        lli b=-pq.top();
        pq.pop();
        ans+=(a+b);
        pq.push(-(a+b));
    }
    cout<<ans<<endl;
}

int main(){
    ios_base::sync_with_stdio(0);
    cin.tie(0);
```

Sample Tests | Manual Tests

Console | Run on Sample