Arrange the coins

We are required to sort a bunch of coins into pouches. There are k pouches kept in a line (numbered 1 through k). Initially, the pouches are empty. For each valid i, the i-th pouch has a maximum capacity Si coins. We can perform the following operation any number of times: choose an integer L (1≤L≤k) and put one coin in each of the pouches 1,2.....,L.

We need to put as many coins as possible into the pouches in total (the distribution of tokens in the pouches does not matter). Of course, it is not allowed to perform an operation that would result in the number of coins in some pouch exceeding its capacity. Find the maximum number of coins that can be put in the pouches.

Input Format

The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows. The first line of each test case contains a single integer k. The second line contains k space-separated integers S1, S2, ... Sn

Constraints

1≤T≤100 1≤N≤10^6 1≤S≤10^9 For each valid i the sum of NN over all test cases does not exceed 5*10^6

Output Format

For each test case, print a single line containing one integer - the maximum number of coins

Sample Input 0

```
1
3
2 1 3
```

Sample Output 0

```
4
```

Explanation 0

The optimal way is to perform the following operations:

Choose L = 3 and put one coin in each box. Choose L = 1 and put one more coin in the first box.

More

C++14

```cpp
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;


int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}

```

Line: 1 Col: 1

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