3 Questions Total Marks: 300.0

3 Programming Questions

1. String Game + 100.0
2. Max Power + 100.0
3. Thief and Warehouses + 100.0

There are N warehouses. The warehouses are located in a straight line and are indexed from **1** to **N**. Each warehouse contains some number of sacks.

A thief decides to rob these warehouses. Thief figured out that he can escape the police if and only if he follows both the following 2 constraints:

- He will rob only one continuous segment of warehouses.
- He will rob same number of sacks from each warehouse.

Thief wants to calculate the maximum number of sacks he can steal without getting caught by the police.

Input Format:

The first line contains an integer T denoting number test cases.

The first line of each test case contains a single integer N denoting number of warehouses.

The second line of each test case contains N space-separated integers :$a[1], a[2], a[3] \ldots a[n]. a[i]$ denotes number of sacks in i_{th} warehouse.

Constraints:

- $1 <= T <= 5$
- $1 <= N <= 10^6$
- $0 <= A[i] <= 10^{12}$

Output Format:

Output exactly **T** lines.

The i_{th} line should contain a single integer, i.e the answer for i_{th} testcase(maximum number of sacks thief can steal without getting caught).

Sample Input

```
2
5
2 4 3 2 1
6
3 0 5 4 4 4
```

Sample Output

```
8
16
```

Explanation

In first test case thief will steal 2 sacks from each warehouse from 1 to 4.

Note: Your code should be able to convert the sample input into the sample output. However, this is not enough to pass the challenge, because the code will be run on multiple test cases. Therefore, your code must solve this problem statement.