Store the Water

locked

by rithvik_kolla

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The people of Rajasthan are facing a scarcity of water. They have come up with a way to store rainwater. They use evenly shaped rocks of same width and different heights. The water gets stored between these rocks upon raining.

Following is a image for better understanding -

The heights of these rocks are 0,1,0,2,1,0,1,3,2,1,2,1.

As shown above, the black bars indicate the rocks while the blue ones indicate the rainwater.

Note - The rocks can have a height of 0!

Given the heights of these rocks, find out the maximum amount of rainwater that can be stored from these kinds of arrangements.

Input Format

The first line of the input contains the number of test cases **T**. The first line in each test case contains **N**, the number of rocks being placed. The second line contains **N** space-separated positive integers indicating the height of the rocks.

Constraints

1. T <= 100
2. Heights of all rocks are greater than or equal to 0.

Output Format

A single integer indicating the maximum amount of water that can be stored.

Sample Input 0

```
1
12
0 1 0 2 1 0 1 3 2 1 2 1
```

Sample Output 0

```
6
```

Explanation 0

As shown in the diagram, the rocks form a shape which stores 6 units of rainwater.

Submissions: 67
Max Score: 10

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```c
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

Line: 1 Col: 1

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