Description

I hate stairs! At least ones you have to go up. Going down is ok.

Unfortunately all the elevators in my incredibly tall office building are broken. So I have to take the stairs. Even worse, I have many meetings today on various floors.

I will tell you the floors of the meetings I must attend in the order they will occur. You tell me the total number of floors I must ascend throughout my day.

More specifically, I will give you a sequence of integers indicating the floors my meetings are held (in the order they are held). The first integer is the floor I am currently on (don't worry about how I got there). You should print the total number of floors I go up throughout the day. Do not worry about counting the number of floors I go down.

Input

The input will consist of 2 lines. The first line consists of a single integer n indicates the number of meetings I have. This is always between 1 and 1000. The second consists of n space-separated integers between 1 and 10^6 indicating the floor of a meeting I must attend. These will appear in the order I must attend them.

Output

Output a single line containing a single integer indicating the total number of floors I go up throughout the day.

Sample Input

```
4
1 2 1 3
```

Sample Output

```
3
```

Explanation: I go up 1 floor when ascending from floor 1 to floor 2. I do not go up any floors (in fact, I go down) when I go back down to floor 1. Then I go up 2 floors from floor 1 to floor 3. In total, I ascended 3 floors throughout the day.

Sample Input

```
4
2 1 1 2
```

Sample Output

```
1
```

Explanation: The only time I go up a floor is from the meeting at floor 1 to the meeting at floor 2.

Sample Input

```
2
3 2
```

Sample Output

```
0
```

Explanation: Thankfully I never have to go up any floors!