Coding Practice With Kick Start 2020 - Coding Practice with Kick Start

Bike Tour

Problem

Li has planned a bike tour through the mountains of Switzerland. His tour consists of **N** checkpoints, numbered from 1 to **N** in the order he will visit them. The i-th checkpoint has a height of $\mathbf{H_i}$.

A checkpoint is a *peak* if:

- It is not the 1st checkpoint or the **N**-th checkpoint, and
- The height of the checkpoint is *strictly greater than* the checkpoint immediately before it and the checkpoint immediately after it.

Please help Li find out the number of peaks.

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. Each test case begins with a line containing the integer **N**. The second line contains **N** integers. The i-th integer is $\mathbf{H_i}$.

Output

For each test case, output one line containing `Case #x: y`, where `x` is the test case number (starting from 1) and `y` is the number of peaks in Li's bike tour.

Limits

Time limit: 10 seconds per test set.
Memory limit: 1GB.
$1 \leq \mathbf{T} \leq 100$.
$1 \leq \mathbf{H_i} \leq 100$.

Test set 1

$3 \leq \mathbf{N} \leq 5$.

Test set 2

$3 \leq \mathbf{N} \leq 100$.

Sample

Input	Output
4 3 10 20 14	Case #1: 1 Case #2: 0 Case #3: 2

```
4                Case #4: 0
7 7 7 7
5
10 90 20 90 10
3
10 3 10
```

- In sample case #1, the 2nd checkpoint is a peak.
- In sample case #2, there are no peaks.
- In sample case #3, the 2nd and 4th checkpoint are peaks.
- In sample case #4, there are no peaks.