


Assignment Case	
COMP6047 Algorithm and Programming	
Computer Science	<Case Code>
<i>Valid on Compact Semester Year 2018/2019</i>	Revision 00

Soal*Case***Mario Jump!**

Jojo is very absorbed with the new mario game. The game is fairly much the same as the old Super Mario games. He had clearly memorized all possible routes and enemies encounter that he decided to add another spice for his game to hinder his boredom from appearing.

It's quite simple, he wants to know how much ascending and decending steps that he had taken along the game. Since he was into the game and can't count at the same time, you as the programmer are task to help him count it out.

Format Input

The first line consist of a single integer N. N indicates the number of test cases.

For each test case, there will be two integers K and A, where K indicates the number of obstacles and A indicates the height of each obstacle

For the next K line, it consists of positive A_{th} number

Format Output

For each test case, output the answer with format "Case #T : A B", where T is the number of test cases, A is total of ascending steps and B is the total of descending steps.

Constraints

$$1 \leq N \leq 100$$

$$1 \leq K \leq 1000$$

$$1 \leq A \leq 100$$

Sample Input	Sample Output
4	Case #1 : 3 0
4	Case #2 : 2 1
1 2 3 4	Case #3 : 1 2
7	Case #4 : 0 0
9 9 9 1 2 2 3	
5	
4 3 1 1 2	
3	
1 1 1	

Explanation

Test Case #1:

1 2 3 4

1→2 = 1 step ascending

2→3 = 1 step ascending

3→4 = 1 step ascending

Total : 3 step ascending and 0 step descending