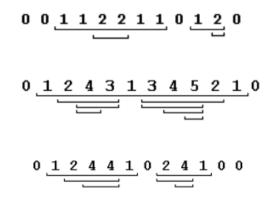
# 7092 Islands in the Data Stream

Given a sequence of integers  $a_1$ ,  $a_2$ ,  $a_3$ , ...,  $a_n$ , an *island* in the sequence is a contiguous subsequence for which each element is greater than the elements immediately before and after the subsequence. In the examples below, each island in the sequence has a bracket below it. The bracket for an island contained within another island is below the bracket of the containing island.



Write a program that takes as input a sequence of 12 non-negative integers and outputs the number of islands in the sequence.

### Input

The first line of input contains a single integer P,  $(1 \le P \le 1000)$ , which is the number of data sets that follow. Each data set should be processed identically and independently.

Each data set consists of a single line of input. It contains the data set number, K, followed by 12 non-negative integers separated by a single space. The first and last integers in the sequence will be '0'.

#### **Output**

For each data set there is one line of output. The single output line consists of the data set number, K, followed by a single space followed by the number of islands in the sequence.

#### Sample Input

4
1 0 0 1 1 2 2 1 1 0 1 2 0
2 0 1 2 4 3 1 3 4 5 2 1 0
3 0 1 2 4 4 1 0 2 4 1 0 0
4 0 1 2 3 4 5 6 7 8 9 10 0

## **Sample Output**

1 4

2 8

3 6

4 10