	# 4857 - Halloween Costumes
	## Asia - Dhaka - 2010/2011

Gappu has a very busy weekend ahead of him. Because, next weekend is Halloween, and he is planning to attend as many parties as he can. Since it's Halloween, these parties are all costume parties, Gappu always selects his costumes in such a way that it blends with his friends, that is, when he is attending the party, arranged by his comic-book-fan friends, he will go with the costume of Superman, but when the party is arranged contestbuddies, he would go with the costume of `Chinese Postman'.

Since he is going to attend a number of parties on the Halloween night, and wear costumes accordingly, he will be changing his costumes a number of times. So, to make things a little easier, he may put on costumes one over another (that is he may wear the uniform for the postman, over the superman costume). Before each party he can take off some of the costumes, or wear a new one. That is, if he is wearing the Postman uniform over the Superman costume, and wants to go to a party in Superman costume, he can take off the Postman uniform, or he can wear a new Superman uniform. But, keep in mind that, Gappu doesn't like to wear dresses without cleaning them first, so, after taking off the Postman uniform, he cannot use that again in the Halloween night, if he needs the Postman costume again, he will have to use a new one. He can take off any number of costumes, and if he takes off k of the costumes, that will be the last k ones (e.g. if he wears costume A before costume B, to take off A, first he has to remove B).

Given the parties and the costumes, find the minimum number of costumes Gappu will need in the Halloween night.

Input

First line contains T ($T \leq 2500$), the number of test cases.

Each test case starts with two integers, N and M ($1 \leq N, M \leq 100$), the number of parties, and number of different types of costumes. Next line contains N integers, c_i ($1 \leq c_i \leq M$), the costume he will be wearing in party i. He will attend the party 1 first, then party 2, and so on.

There is a blank line before each test case.

Output

For each test case, output the minimum number of required costumes. Look at the output for sample input for details.

Sample Input

```
4

1 1
1

2 2
1 1

3 2
1 2 1

7 3
1 2 1 1 3 2 1
```

Sample Output

```
Case 1: 1
Case 2: 1
Case 3: 2
Case 4: 4
```

Dhaka 2010-2011

Problemsetter: Manzurur Rahman Khan
Special Thanks: Md. Arifuzzaman Arif