Problem E: To Eat or not to Eat?

John is a poor dairy farmer who is down on his luck. Although he has several herds of dairy cows they do not seem to produce enough milk to cover all of John's expenses.

Lately, John and his family have been going hungry while his cows continue to milk him for more than he gets back. So John has come up with a bright (for him) idea. Each day John plans to choose the cow that produced the LEAST amount of milk on that day and eat it (his family is VERY hungry). Unfortunately, John could not figure out what to do on days where more then one cow produces the least amount of milk so John decided that on those days he would not eat any of them.

John believes that he will never run out of cows so all his problems will be solved (maybe even the cows will start producing more milk when they see their days may be numbered). As John's clever good friend you must show him that he is headed for unheard problems.

Now the thing about John's cows that is that they do not all produce the same amount of milk from day to day. In fact each cow has its own cycle of milk production that it consistently follows. So a particular cow may have a 2 day cycle where it produces 1 unit of milk on the first day and 3 units on the second day. Over a week this cow would produce:

Day:	1	2	3	4	5	6	7
Milk (units):	1	2	1	2	1	2	1

Your task is to show for each herd of cows how many will NOT be eaten and the number of days that have passed when the last cow is eaten. Of course if no cow is eaten in a herd then the number of days that have passed will be 0.

INPUT

The first line of the input file contains an integer H ($1 <= H <= 50$) indicating the number of herds. Each herd that follows starts with an integer N ($1 <= N <= 1000$) on a line indicating the number of cows in the herd. In the N lines that follow, each line starts with an integer C_i ($1 <= Ci <= 10$) indicating the length of the cow's cycle in days followed by C_i integers M_j ($1 <= M_j <= 250$) indicating the number of units of milk the cow produces on the j-th day of the cycle.

OUTPUT

For each herd in the input, print a single line containing two integers: C indicating the number of cows in the herd that will not be eaten; and D indicating the number of days that have passed when the last cow is eaten.

SAMPLE INPUT

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1
4
4 7 1 2 9
1 2
2 7 1
1 2
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SAMPLE OUTPUT

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Problem E by team X
2 6
End of problem E by team X
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