

Problem B: Buckets

Advanced Algorithms for Programming Contests

Restrictions

Time: 2 seconds

Memory: 512 MB

Problem description

The **Taj Mahal**, the casino you work in, has installed a new gambling device. It consists of N buckets, numerated from 1 to N , and M unmarked balls. When the device is activated, the balls fall randomly – one after another – into the buckets. Before that happens, the players may place bets on which balls (referring to the order in which they fall) end up in which of the buckets, while paying a small fee for each bet they place.

Since the casino's mathematician assured the manager that the odds of anyone winning would be astronomically small, the casino has set out an inordinate amount of money to anyone who manages to correctly guess what the content of any of the buckets will be once all balls have fallen – with one exception: a player can't bet on a bucket to stay empty.

Your task is now to write a program that first documents the fall of the balls and then checks for each of the bets whether it was won or not.

Input

The input consists of

- one line containing N ($10^3 \leq N \leq 10^4$) – the number of buckets – M ($1 \leq M \leq 10 \cdot N$) – the number of balls – and B ($1 \leq B \leq 10^3$) – the number of bets
- M lines containing the numbers n_1, \dots, n_M ($1 \leq n_i \leq N$), with n_i being the number of the bucket the i -th ball fell into.
- B lines describing the bets, each of them beginning with numbers b and a (in this order!) – the number of the bucket in question and the amount of balls the player bets to be there ($1 \leq b \leq N, 1 \leq a \leq 100$), and then continuing with a numbers $t_1 < \dots < t_a$ – the numbers of the balls the player expects to be in the bucket.

Output

For each of the bets, output "CORRECT" if it was entirely correct and "INCORRECT" otherwise.

Sample input and output

Input	Output
1000 3 3	INCORRECT
373	CORRECT
106	INCORRECT
455	
753 2 1 3	
106 1 2	
373 1 3	