Students

This question is graded for 1%.

Problem Statement

In NUS, everyone is either a student or not a student. Tom is part of the organising committee for the grand NUS Guessing Contest, which is open to the public. The rules of the contest are simple: all participants are allowed to write down the name of one other participant. Participants are allowed to send in multiple entries, but it is not mandated that each participant must send in an entry. Out of all the contest entries, if it can be **guaranteed** that there is an entry where a student wrote down the name of a person who is not a student, the contest ends in a victory for all contestants. Tom is not sure of the goal of the contest, but it does not matter, as he is responsible for determining and validating the outcome of the contest. Will you be able to help Tom with this task?

Input

The first line of input consists of two integers *N* (1 <= *N* <= 10^5), the number of participants, and *M* (0 <= *M* <= $min(\frac{N(N-1)}{2}, 2 \times 10^5)$, the number of contest entries. Then, this is followed by *N* lines of input, each describing a unique participant with their name and their student status separated by a space. Participants have unique names consisting of 1 to 10 letters from the English alphabet, consisting of both upper and lowercase letters. Their student status is given as "s" if they are students, "n" if they are not students and "?" if their student status is unknown. An unknown student status can occur due to bugs in the data storage system, which results in loss of data. This is then followed by *M* lines of the form "{p1} -> {p2}", meaning that participant p1 wrote down the name of participant p2 in the contest entry. Note that as per the contest rule, no participant is allowed to write down their own names.

Output

Output "VICTORY" if some student wrote down the name of a person who is not a student. Output "EVERYONE LOSES" if no student wrote down the name of a person who is not a student. If this cannot be determined, output "OUTCOME UNCLEAR".

if there is a path from student to notstudent

Sample Input 1

```
3 2
Tom s
Eunice n
Charlie s
Tom -> Charlie
Charlie -> Eunice
```

Sample Output 1

```
VICTORY
```

Sample Input 2

```
3 2
Tom s
Eunice n
Charlie s
Tom -> Charlie
Eunice -> Charlie
```

Sample Output 2

```
EVERYONE LOSES
```

Sample Input 3

```
3 2
Tom ?
Eunice ?
Charlie ?
Tom -> Charlie
Eunice -> Charlie
```

Sample Output 3

```
OUTCOME UNCLEAR
```

Explanation

For Sample Input 1, Charlie, a student, wrote down the name of Eunice, who is not a student. For Sample Input 2, no student wrote down the name of a participant who is not a student. For Sample Input 3, it is not possible to determine the outcome of the contest as the statuses of all participants are unknown.