

Problem G

High Table

The High Table is a shadowy international organization of assassins. Their influence and power reach far and wide.

Various entities serve the High Table, e.g. a hired assassin serves the High Table, the Continental hotel chain serves the High Table, and Sushi Gang serves the High Table.

Entities don't have to directly serve the High Table, they can serve other entities instead. E.g. a hotel staff serves the Continental hotel, which in turn serves the Table. In this case, the hotel staff still serves the Table, just indirectly.

Every entity serves exactly one other entity, e.g. a hotel staff can not serve both the Continental hotel and Sushi Gang at the same time. But one entity can have many entities serving it, e.g. the Continental hotel has many staff members.

There is one entity that does not serve anyone - the High Table itself.

The High Table wants to kill John Wick, but John Wick has friends, e.g. the Continental hotel is willing to defect from the High Table and help John Wick instead. When an entity X decides to defect, all entities that serve X , directly or indirectly, also defect from the High Table.

Given a set of serving relations, and a set of entities that are going to defect, the High Table wants to know whether there will be more entities on their side or more entities will end up helping John Wick. And you have been hired by the High Table to find out!

Input

The first line of the input contains 2 integers N ($1 \leq N \leq 100\,000$), the number of entities in total, and M ($0 \leq M \leq N$), the number of entities that initially defects.

Each entity is coded with an integer between 0 and $N - 1$, inclusive. The High Table is coded 0.

$N - 1$ lines follow, in these lines, the i -th line contains 1 integer X_i , ($0 \leq X_i \leq i$), this denotes that entity $i + 1$ serves entity X_i .

The next M lines contain 1 integer X , denoting the entity coded X initially defects.

Output

Output a line with "We are High Table." if more entities serve the High Table, "We are NYC." if more entities defects, and "I'd say the odds are about even." if the number of entities serving is equal to the number of entities defecting.

Sample Input

```
11 4
0
0
1
1
2
2
2
3
3
3
6
1
3
5
6
```

Sample Output

```
We are NYC.
```

Sample Input

```
3 0
0
1
```

Sample Output

```
We are High Table.
```

Sample Input

```
2 1
0
1
```

Sample Output

```
I'd say the odds are about even.
```