ASTU ICPC Club
prob:Iron Coder Challenge

The Problem

In order to raise money for ASTU ICPC(so we can buy all the students laptops) Adonias has decided to host a television show called "Iron Coder" from the Adama Science and Technology Universty. His pitch for the show was Iron Chef with programmers! The show will start with a guest programmer who has the choice to challenge any one from a group of programming masters to a special one-on-one programming competition.

A former CSE student who is now a professional programmer has been invited to be a challenger on the show. The problem is they are not sure if they can beat the best master programmer there, but they also don't want to challenge the weakest programmer either. Their solution is to challenge the master in the exact middle between best and worst. If there is an even number of masters then, for more of a challenge, the student will pick the higher of the two middle masters. You will be given a list of all the programming masters and an associated 'coding score' which is a number that represents their programming ability. A programmer with a higher coding score will always beat a programmer with a lower coding score, therefore the programming master with the highest coding score is the 'best' and the lowest coding score is the 'worst'. No two programmers will have the exact same programming score.

You need to print out the name of the programming master the former student will challenge and also if they will be able to win the match.

The Input

The beginning of the input file will consist of a single integer *N* representing how many Iron Coder challenges you will solve. The next line will contain two integers *C* and *T* *(1≤T≤100),* which are the former student's coding score and the number of programming masters, respectively. The next T lines contain a string S which is the name of a master programmer (alphabetic characters only) and an integer which represents this master programmer's coding score.

The Output

For each Iron Coder challenge you must print out the name of the programming master the student will challenge and if the student will be successful in the challenge. The challenger will never tie with the master.

The output format is as follows (one line of output per case):

```
The challenger will face S: The challenger wins!
```

or

```
The challenger will face S: The challenger loses.
```

Sample Input

```
2
10 3
Bill 40
Sergey 42
Steve 8
123 4
Turing 100
Neumann 80
Zuse 60
Stallman 120
```

Sample Output

```
The challenger will face Bill: The challenger loses.
The challenger will face Turing: The challenger wins!
```