

Problem D. The Great Bubble Hunt

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 1024 mebibytes

In the heart of the Bubble Kingdom, two rival bubble hunters, Alby and Zura, are about to embark on a grand hunt across the mysterious Bubble Caves. These caves are represented as a network of chambers, connected by the bidirectional tunnels, forming a peculiar graph known as a “Bubble Cactus”.

A cycle in a graph is a path that begins and ends at the same chamber, passing through a sequence of tunnels. In the Bubble Cactus, a key rule is that each tunnel can be part of at most one cycle.

Alby and Zura start their hunt together from the entrance chamber, labeled as chamber 1, and their ultimate goal is to reach the prized exit chamber, labeled as chamber N . The hunt, however, is no ordinary race. As they traverse the Bubble Caves, the tunnels connecting chambers disappear behind them. Each tunnel holds bubble crystals, which are claimed by the hunter who travels through that tunnel.

The rules of the hunt are simple:

- Alby moves first, followed by Zura, and they alternate turns. During a move, a hunter can move along a tunnel to an adjacent chamber.
- When a hunter moves through a tunnel, they collect the bubble crystals from that tunnel, and the tunnel collapses behind them.
- Both hunters will aim to reach the exit chamber N , but they also seek to collect as many bubble crystals as possible along the way.
- A hunter can choose not to move on their turn.
- Once a hunter reaches chamber N , they can continue moving without the need to return to the exit chamber, **but they can no longer collect any bubble crystals** (the tunnels they pass through still collapse behind them).

The game concludes when both hunters reach chamber N , or it is clear that one of the hunters can no longer reach chamber N . The outcome is determined as follows:

- If Alby has reached chamber N while Zura has not, the outcome is a “**Win**” for Alby.
- If Zura has reached chamber N while Alby has not, the outcome is a “**Loss**” for Alby.
- If neither of them has reached chamber N , the outcome is a “**Tie**”.
- If both Alby and Zura have reached chamber N , the outcome is the difference between the number of bubble crystals collected by Alby and the number of bubble crystals collected by Zura.

Both Alby and Zura are experts in bubble hunting, and thus they will always play optimally. The goal of a hunter is to reach the exit chamber while, if possible, blocking the other player. If it’s not possible to prevent the other player from reaching chamber N , then the hunter will aim to maximize their number of bubble crystals.

Can you determine the outcome of this great hunt?

Input

The first line contains two integers N and M : the number of chambers and the number of tunnels ($2 \leq N \leq 3 \cdot 10^5$, $0 \leq M \leq 6 \cdot 10^5$).

Each of the next M lines contains three integers U , V , and W : the two chambers connected by a tunnel and the number of bubble crystals in that tunnel respectively ($1 \leq U, V \leq N$, $U \neq V$, $1 \leq W \leq 10^6$). In the graph, no edge belongs to more than one cycle.

Output

Print:

- “Win” if Alby can ensure Zura doesn’t reach chamber N while Alby reaches it.
- “Loss” if Zura can ensure Alby doesn’t reach chamber N while Zura reaches it.
- “Tie” if neither Alby nor Zura can reach chamber N .
- The difference between Alby’s and Zura’s optimal scores if both reach chamber N .

Examples

<i>standard input</i>	<i>standard output</i>
5 5 1 2 1 2 1 1 3 4 1 4 5 1 3 5 1	Tie
4 5 1 2 5 2 3 4 1 3 1 3 4 2 3 4 4	Win
7 7 1 2 1 2 3 5 3 7 2 1 4 7 4 5 1 5 7 3 1 6 10	3

Note

In the first example, none of the hunters have a possible path to reach chamber N , so the result is a tie.

In the second example, Alby will first use edge $(1, 3)$ to go to chamber 3, then use one of the edges $(3, 4)$ to go to chamber 4, and finally use the other edge $(3, 4)$ to go to chamber 3 and block Zura from reaching chamber 4. Note that this example shows that there may be the multiple edges as long as the cactus property is held.

Meanwhile, Zura can not get to the edges $(3, 4)$ fast enough as she has to use 2 turns to reach chamber 3 using edges $(1, 2)$ and $(2, 3)$.

In the third example, the optimal game plays out as follows:

- Alby uses edge $(1, 4)$ and collects 7 bubble crystals.
- Zura uses edge $(1, 2)$ and collects 1 bubble crystal.
- Alby uses edge $(4, 5)$ and collects 1 bubble crystal.
- Zura uses edge $(2, 3)$ and collects 5 bubble crystals.
- Alby uses edge $(5, 7)$ and collects 3 bubble crystals.
- Zura uses edge $(3, 7)$ and collects 2 bubble crystals.

After this, both hunters have reached chamber 7, so the hunt ends. In the end, Alby has collected 11 bubble crystals, while Zura has collected 8 bubble crystals, making the difference between them equal to 3.