Problem H. Stone Catch Game

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	256 mebibytes

Yuto and Platina are going to play a stone tag game. The game is played on a two-dimensional coordinate plane, and unusually, only the part where both the x and y coordinates are from 0 to 10^9 inclusive is used as the game board.

On the game board, there are one white stone and N black stones. Initially, the white stone is located at $(0,0)$, and the i-th black stone is located at (x_i, y_i). Initially and during the game, two or more stones may occupy the same position.

On Yuto's turn, if the white stone is at (x, y), he moves it to either $(x + 1, y)$ or $(x, y + 1)$.

On Platina's turn, she picks any one black stone she wants, and if it is at (x, y), moves it to either $(x - 1, y)$ or $(x, y - 1)$.

Players take turns, and Yuto moves first. Yuto wins if the white stone escapes the game board, and Platina wins if the white stone and some black stone occupy the same position before that. In particular, if there is a black stone initially at $(0,0)$, Platina wins before the game even starts.

Both players play the game perfectly, but the playing field is so large that we want to know in advance who will win. Find out who will win the game.

Input

The first line of the input contains an integer N, the number of black stones ($1 \le N \le 3 \cdot 10^5$).

The i-th of the next N lines contains two integers x_i and y_i: the position of i-th black stone ($0 \le x_i, y_i \le 10^9$).

Output

Print who will win the game. Note that the first letter of the name is uppercase.

Examples

standard input	standard output
1 0 1	Yuto
2 2 3 3 2	Platina
2 0 2 2 1	Platina