

E. Ridiculous Marbles Game

Time limited: 10 seconds

Problem Description

Quang and Thanh play a ridiculous marbles game. Because both of them are learning the basics math so they build the game by using the sqrt(root square). At first a pile has n marbles, in one turn player can take the number of marbles $\leq \sqrt{n}$ (the number of marbles present), for example, with 10 marbles, the player is only allowed to take 1, 2 or 3 marbles. The player take final pick is the winner, Quang is the one who is ahead. Please consider who is the winner, if the winner is Quang print "WIN" else Quang lost print "LOSE".

Input

Include multiple lines, each line is number n ($1 \leq n \leq 10^{12}$).

Output

For each test print out the results

Example

3	WIN
5	LOSE