A. LuckyFuv vs Chutsav - game of sticks time limit per test 2 seconds memory limit per test 256 megabytes input standard input output standard output

It's one more school day now. LuckFuv doesn't like classes and is always bored at them. So, each day he invents some game and plays in it alone or with friends.

Today he invented one simple game to play with chutsav, with whom he shares a desk. The rules are simple. LuckFuv draws n sticks in a row. After that the players take turns crossing out exactly k sticks from left or right in each turn. LuckFuv moves first, because he is the inventor of the game. If there are less than k sticks on the paper before some turn, the game ends. LuckFuv wins if he makes strictly more moves than chutsav. LuckFuv wants to know the result of the game before playing, you are to help him.

Input

The first line contains two integers n and k ($1 \le n, k \le 10^{18}, k \le n$) — the number of sticks drawn by LuckFuv and the number k — the number of sticks to be crossed out on each turn.

Output

If LuckFuv wins, print "YES" (without quotes), otherwise print "NO" (without quotes).

Since LuckFuv is a Pro, he doesn't solve these little problems, so he asks you to solve this problem.

You can print each letter in arbitrary case (upper of lower).

Examples

input		
1 1		
output		
YES		

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input
10 4
```

output

NC

Note

In the first example LuckFuv crosses out 1 stick, and then there are no sticks. So chutsav can't make a move, and LuckFuv wins.

In the second example LuckFuv crosses out 4 sticks, then chutsav crosses out 4 sticks, and after that there are only 2 sticks left. LuckFuv can't make a move. The players make equal number of moves, so LuckFuv doesn't win.