B. Remainders Game

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input

output: standard output

Today Pari and Arya are playing a game called Remainders.

Pari chooses two positive integer x and k, and tells Arya k but not x. Arya have to find the value . There are n ancient numbers $c_1, c_2, ..., c_n$ and Pari has to tell Arya if Arya wants. Given k and the ancient values, tell us if Arya has a winning strategy independent of value of x or not. Formally, is it true that Arya can understand the value for any positive integer x?

Note, that means the remainder of x after dividing it by y.

Input

The first line of the input contains two integers n and k ($1 \le n$, $k \le 1\ 000\ 000$) — the number of ancient integers and value k that is chosen by Pari.

The second line contains n integers $c_1, c_2, ..., c_n$ ($1 \le c_i \le 1000000$).

Output

Print "Yes" (without quotes) if Arya has a winning strategy independent of value of x, or "No" (without quotes) otherwise.

Examples

input	
4 5 2 3 5 12	
output	
Yes	

input
7
3
output
0

Note

In the first sample, Arya can understand because 5 is one of the ancient numbers.

In the second sample, Arya can't be sure what is. For example 1 and 7 have the same remainders after dividing by 2 and 3, but they differ in remainders after dividing by 7.