

I. 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 $x \bmod k$. There are n ancient numbers c_1, c_2, \dots, c_n and Pari has to tell Arya $x \bmod c_i$ 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 $x \bmod k$ for any positive integer x ?

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

Input

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

The second line contains n integers c_1, c_2, \dots, c_n ($1 \leq c_i \leq 1\,000\,000$).

Output

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

Examples

input	Copy
4 5 2 3 5 12	
output	Copy
Yes	

input	Copy
2 7 2 3	
output	Copy
No	

Note

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

In the second sample, Arya can't be sure what $x \bmod 7$ 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.

Topic Stream Mashup: Number Theory

Finished

Practice



→ Virtual participation

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Language: GNU G++17 7.3.0

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