10/05/2023, 19:56 Problem - I - Codeforces





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

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

### Input

The first line of the input contains two integers n and k ( $1 \le n, k \le 1000000$ ) — the number of ancient integers and value k that is chosen by Pari.

The second line contains n integers  $c_1, c_2, ..., c_n$  ( $1 \le c_i \le 1$  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	Сору
4 5 2 3 5 12	
output	Сору
Yes	copy

input	Сору
2 7 2 3	
output	Сору
No	

### Note

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

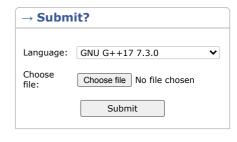
In the second sample, Arya can't be sure what  $x \mod 7$  is. For example 1 and 7 have the same remainders after dividing by 2 and 3, but they differ in remainders after dividing by 7.

# Topic Stream Mashup: Number Theory Finished Practice

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