# **Unfriendly Numbers**



Given 1 friendly number and n unfriendly numbers, determine how many numbers are divisors of the friendly number but *not* the unfriendly numbers.

## **Input Format**

The first line contains 2 space-separated integers, n (the number of unfriendly numbers) and f (the friendly number), respectively. The second line contains n space-separated unfriendly numbers.

#### **Constraints**

- $1 \le n \le 10^6$
- $1 \le f \le 10^{13}$
- $1 \le unfriendly numbers \le 10^{18}$

#### **Output Format**

Print the the number of unique divisors of f (i.e.: divisors that are not shared with those of the unfriendly numbers) as a single integer.

# **Sample Input**

8 16 2 5 7 4 3 8 3 18

### **Sample Output**

1

#### **Explanation**

There are n=8 unfriendly numbers: 2, 5, 7, 4, 3, 8, 3, 18. Our friendly number, f, is 16, and its even divisors are 1, 2, 4, 8, 16.

Let count be the number of friendly divisors that are not also unfriendly divisors. Let's determine which divisors of f are not also divisors of the unfriendly numbers:

- 1 is a divisor of all unfriendly numbers, so we disregard it.
- 2 is a divisor of unfriendly numbers 2, 4, and 8, so we disregard it.
- 4 is a divisor of unfriendly numbers 4 and 8, so we disregard it.
- 8 is a divisor of unfriendly number 8, so we disregard it.
- 16 is not a divisor of any unfriendly number, so we increment *count* to 1.

As there are no more friendly divisors to check, we print the value of *count* (which is 1) on a new line.