A positive integer x is said to be k-perfect if x^(1/k) is an integer.

In other words, x is k-perfect if we can find a positive integer y such that x=y^k.

You are the competitive programming coach at your university, you have n trainees and you want to choose a team of 2 students to represent your faculty at the LUCPC. Each student has a certain power x. The team you choose must be a k-perfect team. A k-perfect team is a team where the product of powers of its members is k-perfect. Given n,k and a list of student powers, in how many possible ways can you form a k-perfect team?

Example:

Suppose n=4, k=3 and the list of powers is A= [1,3,8,1]

In this case:

A1*A3=1*8=2^3 (the first and third students can form a k-perfect team)

A1*A4=1*1=1^3 (the first and fourth students can form a k-perfect team)

A3*A4=8*1=2^3 (the third and fourth students can form a k-perfect team)

Any other combination of students will not form a k-perfect team.

So, in this case the answer is 3.

Input format:

- Two integers n and k such that 1<=n<=10^5 and 2<=k<=100
- A list of students' powers. The power of each student is between 1 and 10^5 inclusively.

Output format: Print a single integer representing the required result.

Sample input 1:

6 3

1 3 9 8 24 1

Sample output 1:

5

Sample input 2:

2 2

40 90

Sample output 2:

1