The Tom and Jerry Factor

locked

by rithvik_kolla

Tom is playing around with a number **X**. Jerry has a lot of numbers (say **N** numbers). Tom and Jerry get into a quarrel and Tom wants some of the numbers that Jerry has. After some cat-and-mouse quibbling, Jerry finally agrees to give some numbers. Jerry says that Tom shall recieve only those numbers whose set of prime factors are a subset of the set of prime factors of **X**. Find out how many numbers Tom recieves from Jerry.

Input Format

- The first line contains **T**, the number of test cases.
- The first line in each test case will have **N** and **X** separated by a space.
- The second line in each test case will have **N** space separated integers.

Constraints

- T <= 50
- X <= 10^9
- N <= 50000
- 0<= A[i] <=10^9

Output Format

A single integer denoting the amount of numbers that Tom recieved from Jerry.

Sample Input 0

```
1
6 10
2 3 4 5 6 3
```

Sample Output 0

```
3
```

Explanation 0

In this case, the numbers 2, 4 and 5 have prime factors {2}, {2} and {5} respectively. Those are subsets of prime factors of 10, which are {2, 5}.

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C

```c
#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

int main() {

    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

Line: 1 Col: 1

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