

**Begin:** 2021-10-11  
12:30 CST

# NCPC Simulation Day3

**End:** 2021-10-11  
17:30 CST

**Elapsed:** 05:02:24

Running

**Remaining:** -1:57:35

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## Time limit

2000 ms

## Memory limit

1048576 kB

## B - Coprime 2

### Problem Statement

Given a sequence of  $N$  positive integers  $A = (A_1, A_2, \dots, A_N)$ , find every integer  $k$  between 1 and  $M$  (inclusive) that satisfies the following condition:

- $\gcd(A_i, k) = 1$  for every integer  $i$  such that  $1 \leq i \leq N$ .

### Constraints

- All values in input are integers.
- $1 \leq N, M \leq 10^5$
- $1 \leq A_i \leq 10^5$

## Input

Input is given from Standard Input in the following format:

$N$   $M$   
 $A_1$   $A_2$   $\dots$   $A_N$

## Output

In the first line, print  $x$ : the number of integers satisfying the requirement.  
In the following  $x$  lines, print the integers satisfying the requirement, in ascending order, each in its own line.

## Sample Input 1

3 12  
6 1 5

## Sample Output 1

3  
1  
7  
11

For example, 7 has the properties  $\gcd(6, 7) = 1$ ,  $\gcd(1, 7) = 1$ ,  $\gcd(5, 7) = 1$ , so it is included in the set of integers satisfying the requirement.

On the other hand, 9 has the property  $\gcd(6, 9) = 3$ , so it is not included in that set. We have three integers between 1 and 12 that satisfy the condition: 1, 7, and 11. Be sure to print them in ascending order.

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