The Sieve of Eratosthenes (`sieve`)

Giorgio is playing with the Sieve of Eratosthenes, one of the most ancient algorithms of all times. This algorithm starts with a row containing all natural numbers from 2 to M (inclusive), then repeatedly selects the smallest non-selected number remaining in the row, erasing every multiple of it. At the end of the process, only prime numbers will have survived in the row!

Figure 1: Reconstruction of a sieve that Eratosthenes may have used.

Giorgio is trying to apply a similar idea, but with a few differences.

Firstly, some numbers are missing from the starting row, which contains only N numbers (each of them between 2 and M), in increasing order $V_0, \ldots, V_{N-1}$. Secondly, every time Giorgio selects a number, he erases not only the *multiples* of it but also its *divisors* and the *number itself.*

As in the original algorithm, Giorgio keeps selecting numbers from the row (and erasing accordingly), but he doesn't have to select numbers in increasing order. What is the minimum amount of numbers that must be selected to eliminate all the numbers?

☞ Among the attachments of this task you may find a template file `sieve.*` with a sample incomplete implementation.

Input

The first line contains the two integers N and M. The second line contains N integers V_i.

Output

You need to write a single line with an integer: the minimum amount of numbers that must be selected to eliminate each number.

Constraints

- $1 \leq N \leq 250$.
- $2 \leq M \leq 10^6$.
- $2 \leq V_0 \leq V_1 \leq \ldots \leq V_{N-1} \leq M$.

Scoring

Your program will be tested against several test cases grouped in subtasks. In order to obtain the score of a subtask, your program needs to correctly solve all of its test cases.

– **Subtask 1** (0 points)	Examples.
– **Subtask 2** (35 points)	$N \leq 9$.
– **Subtask 3** (15 points)	$M \leq 20$.
– **Subtask 4** (20 points)	$N \leq 50$.
– **Subtask 5** (30 points)	No additional limitations.

Examples

input	output
6 10	3
3 4 6 7 8 9	
6 20	2
2 5 7 10 14 20	

Explanation

In the **first sample case**, we can erase everything by choosing just three numbers. One such strategy is to choose number 7 (erasing just 7), then number 3 (erasing 3, 6, and 9), and finally 8 (erasing 4 and 8). On the other hand, a suboptimal strategy could be to choose numbers: 9, then 8, then 7 and finally 6.

In the **second sample case**, one of the best strategies is to choose numbers 20 and 14.