# Yet Another Contest 2 P3 - Maximum Damage

**Time limit:** 1.0s **Memory limit:** 512M

Mike is playing a strange video game!

There are $N$ enemies that Mike is able to attack. The $i$-th enemy initially has an HP of $h_i$.

In one attack, Mike can select a subset of the $N$ enemies containing at least $K$ enemies, and a positive integer $x$ such that $x > 1$. He must choose the subset and the value of $x$ such that $x$ is a factor of the HPs of all enemies in the subset. Then, the HPs of all enemies in the subset will be divided by $x$.

Mike wants to attack the enemies as many times as possible. Can you help Mike find the maximum number of times he can perform an attack?

## Constraints

$2 \leq K \leq N \leq 3 \times 10^6$

$1 \leq h_i \leq 10^6$

**Subtask 1 [20%]**

$2 \leq N \leq 1000$

$1 \leq h_i \leq 1000$

$K = 2$

**Subtask 2 [40%]**

$K = 2$

**Subtask 3 [40%]**

No additional constraints.

## Input Specification

The first line contains a two space separated integer containing the values of $N$ and $K$.

The next line contains $N$ space separated integers, $h_1, h_2, \ldots, h_N$, representing the initial HPs of the enemies.

## Output Specification

On a single line, print the maximum possible number of attacks which can be performed.

## Sample Input

```
3 2
5 12 10
```

## Sample Output

```
2
```

## Explanation

For the first attack, Mike can choose the first and third enemies in his subset, and choose $x = 5$. The HP of the first enemy is reduced to $5 \div 5 = 1$, and the HP of the third enemy is reduced to $10 \div 5 = 2$.

For the second attack, Mike can choose the second and third enemies in his subset, and choose $x = 2$. The HP of the second enemy is reduced to $12 \div 2 = 6$, and the HP of the third enemy is reduced to $2 \div 2 = 1$.

At this point, Mike cannot perform any more attacks. It can be shown that $2$ is the maximum possible number of attacks which Mike can perform.