Problem D. Common Divisors

Time limit 1000 ms
Mem limit 524288 kB

You are given an array of n positive integers. Your task is to find two integers such that their greatest common divisor is as large as possible.

Input

The first input line has an integer n: the size of the array.

The second line has n integers $x_1, x_2, \ldots, x_n$: the contents of the array.

Output

Print the maximum greatest common divisor.

Constraints

- $2 \leq n \leq 2 \cdot 10^5$
- $1 \leq x_i \leq 10^6$

Example

Input	Output
5 3 14 15 7 9	7