Problem K. Maximum GCD

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

Grammy has a array of length n. She recently learned about the concept of greatest common divisor(GCD). Recall that the GCD of an array is the maximum integer d such that every element in the array is divisible by d. Grammy thinks that the GCD of an array should be as large as possible so that the array can be beautiful.

You want to help Grammy to make her array beautiful, so you decided to do some(possibly, zero) modulo operations on each of the elements in the array. In other words, you can choose a number a_i ($1 \le i \le n$) in the array and choose another integer x and replace a_i with ($a_i \bmod x$) in each operation. Since Grammy does not want 0 to appear in her array, you cannot change a_i into 0 by doing the modulo operation.

Now, your task is to calculate the maximum GCD of the array after several(possibly, zero) modulo operations.

Input

The first line contains a single integer n ($1 \le n \le 10^5$), denoting the number of elements in the array.

The second line contains n positive integers a_i ($1 \le a_i \le 10^9$), denoting the initial elements of Grammy's array.

Output

Output a single integer, denoting the maximum GCD of the array after any number of modulo operations.

Example

standard input	standard output
3 3 10 7	3