Prime Construction

Problem Description

A math game is introduced in a school competition to test the skills of students. The game deals with Prime numbers.

The game rules are as follows:

- From the given set of distinct natural numbers as input, consider the smallest natural number as q.
- Your task is to compute the smallest prime number (p) such that dividing p by all the distinct numbers in the input, except q, should result in q as the remainder.

Constraints

$1 < n < 11$

$p < 10 \wedge 10$

Input

Input consists of n+1 number of distinct natural numbers separated by spaces.

Output

Print single integer p, if such a p exists, else print "None".

Time Limit (secs)

1

Examples

Example 1

Input

3 4 5 1

Output

61

Explanation

Here the n+1 numbers are 3, 4, 5 and 1 where q=1 (the least of the numbers)

The smallest number that leaves remainder 1 when divided by 3, 4 and 5 is 61 and is prime. Hence, output is 61.

Example 2

Input

3 4 5 2

Output

None

Explanation

Here q=2. Any number that when divided by 4 leaving remainder 2 must be an even number e.g., 6, 10, 14 etc. Hence it can't be prime. Hence, outpu "None".