



Alice In Numberland

7 Prime Numbers and Arrays



(++)

Consider a array of natural numbers v , with size expressed by $n \in \mathbb{N}^*$, with $1 \leq n \leq 1000$. The natural numbers are distributed in it totally randomly, that is, there is no apparent order.

Each position of the vector v corresponds to the *order* of a particular prime number, where 2 is the prime number of order 1, 3 is the prime number of order 2 and so on.

A \mathbb{C} computer program must be developed: it will be able to print the prime numbers corresponding to the elements of v , showing them in ascending order.

Input

The first line of the entry will contain the value of n .

The second line will contain the values of the elements of v , always displayed from the first element towards the last element.

Output

The output should display, in just one line, the prime numbers corresponding to the elements of v , in ascending order, and separated by a single blank space between them.

Examples

Entrada	Saída
10 10 2 7 8 5 4 3 1 6 9	2 3 5 7 11 13 17 19 23 29

Entrada	Saída
7 35 140 18 150 28 59 15	47 61 107 149 277 809 863