Objective

Since your youngest age, you are attracted to art and painting in particular. You are fascinated by the infinite number of colors that can be obtained from a few primary colors.

This passion has come back to your mind since the release of a great new application. From a photo, it provides a list of the primary colors needed to reproduce the work.

The application is still in the testing phase, it is not fully operation but remains usable with the explanations of its designer:

- each primary color is represented by a number:
    - red: 2
    - blue: 3
    - yellow: 5
    - black: 7
    - white: 11
- The app returns a list of numbers representing the final colors in the image. Each number is a multiple of at least one value corresponding to the primary colors.

For example, color 6 is a mixture of blue (3) and red (2) or color 39 contains blue because it is divisible by 3 (it is not sure what else it contains is a bug of the application).

You decide to get back to your old brushes to check if you are still able to paint using the app to determine the colors you need at minimum.

Data format

Input

Row 1: an integer **N** between 2 and 100 corresponding to the number of colors in the image.
Rows 2 to **N**+1: an intefer between 2 and 1, 000 corresponding to a color in the image.

Output

The numbers representing the primary colors you need, separated by a space in ascending order.

Example

Input

3
6
65
222

Output

2 3 5

The first color 6 is divisible by 2 and 3 and not by 5.7, 11.
The second color 65 is divisible by 5 and not by 2.3,7, 11.
The third color 222 is divisible by 2 and 3 and not by 5, 7, 11.

So in total, the useful primary colors are 2, 3 and 5