Bacteria O

Scientists researching about new species bacteria O. Bacteria O has some behavior:

1. Every bacteria have a DNA OO that equals to one of the positive numbers
2. They like to formed a triplet bond
3. The larger greatest common divisor of triplet bacteria, the bond is more stronger.
4. Score of a bond is the greatest common divisor of triplet

When N bacteria O put into the same place, naturally they bond each other. The scientists want to collect this data: The largest possible bond score from these bacteria O.

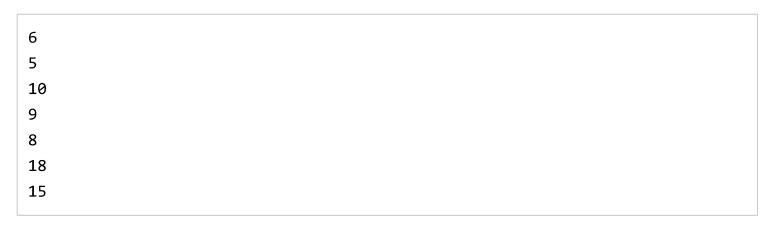Find the largest possible score of bacteria O triplet bond.

Input
The first line of the input contains an integer N (3 ≤ N ≤ 5000) — the number of bacteria O put in a place. The next N lines contain one integer each, between 1 and 1000000 (inclusive), the DNA OO number.

Output
Output one integer — the largest possible score of bacteria O triplet bond.

Sample Input

```
6
5
10
9
8
18
15
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Sample Output

```
5
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