Problem 7: Perfectly Pulsed Pulsars

(Medium)

There was an old song, that I think started out like this:

> Starry, starry night
> The night sky is full of pulsars
> They pulse every few seconds
> I wonder when they'll sync...

Input Format

The first line of input contains N, the number of pulsars that you are observing.

The next N lines of input each contain an integer, where the ith line contains the integer P_i. This integer represents the number of seconds between each successive pulse of pulsar i.

Constraints

- $1 \leq 100$ Errata: 1 <= N <= 100
- $1 \leq P_i \leq 600$

Output Format

Output one integer: the number of seconds until the pulsars pulse at the same time again (**assume that the pulsars *just* pulsed at the same time just as you started observing them**). As the answer may be very big, give your answer **modulo** $10^9 + 7$.

Sample Input

```
3
1
2
3
```

Sample Output

```
6
```

Explanation

One pulsar pulses once every second, another pulses once every 2 seconds, and the third pulses once every 3 seconds. Thus they will pulse again in $1 \times 2 \times 3 = 6$ seconds.