Wolfgang Puck's rival, Emeril Lagasse ("BAM!"), recently set the world culinary record in the category of smallest soufflé measuring in at a mere 2 cm! Wolfgang, not to be outdone, decided that he would set a culinary record of his own: the most symmetric marble cake in the world. This is clearly not an easy feat!

As we all know from Wolfgang's bestselling biography, he is a very superstitious chef. In his attempts to create the symmetric cake, he has vowed to remove the cake from the oven only at a palindromic time, i.e., a time that reads the same when read from left-to-right as right-to-left. Not including the current time, when is the next opportunity for Wolfgang to remove his cake?

Input

On the first line of the input you are given n, the number of attempts Wolfgang makes to make his symmetric cake. The following n lines contain a string formatted as '$HH\!:\!MM$' indicating the current time on a twenty-four hour clock. (So $0 \leq HH \leq 23$ and $0 \leq MM \leq 59$ and '00:00' follows "23:59")

Output

For each attempt, output a string indicating the next palindromic time (not including the current time) on a single line formatted as '$HH\!:\!MM$'. When determining if $HH : MM$ is palindromic, ignore all leading zeroes in HH. If HH is zero then ignore all leading zeroes in MM.

Sample Input

```
3
00:00
23:30
14:59
```

Sample Output

```
00:01
23:32
15:51
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