

Problem D: He Is Legend

Filename: d

Time Limit: 1 second

Marcus aspires to be not just a competitive programmer, but a legendary competitive programmer. He knows that he can be legendary if he can code so fast he gets 0 penalty points for a problem. Since Marcus never makes any mistakes, he only needs to check the timestamp at which he submitted his solution. Note that a submission at time 0:00 results in 0 penalty points.

Problem

Given the timestamp of Marcus' submission determines whether his submission makes him a legendary competitive programmer or not.

Input

The first line of input contains a single positive integer, **c**, representing the number of timestamps.

The following **c** lines each contain a single timestamp. Each timestamp is in the format of **h:mm**.

Output

For each submission print a single line containing either the string `legend` if the submission makes Marcus a legendary competitive programmer or `!legend` if the submission does not result in Marcus being a legend.

Input Bounds and Corresponding Credit

- $1 \leq c \leq 500$
- $0 \leq h \leq 4$
- $00 \leq mm \leq 59$

Samples

Input	Output
3	!legend
0:01	legend
0:00	!legend
4:59	