

B. The Time

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given the current time in 24-hour format $hh:mm$. Find and print the time after a minutes.

Note that you should find only the time after a minutes, see the examples to clarify the problem statement.

You can read more about 24-hour format here https://en.wikipedia.org/wiki/24-hour_clock.

Input

The first line contains the current time in the format $hh:mm$ ($0 \leq hh < 24$, $0 \leq mm < 60$). The hours and the minutes are given with two digits (the hours or the minutes less than 10 are given with the leading zeroes).

The second line contains integer a ($0 \leq a \leq 10^4$) — the number of the minutes passed.

Output

The only line should contain the time after a minutes in the format described in the input. Note that you should print exactly two digits for the hours and the minutes (add leading zeroes to the numbers if needed).

See the examples to check the input/output format.

Examples

input
23:59 10
output
00:09
input
20:20 121
output
22:21
input
10:10 0
output
10:10