Charles lives in an apartment right across from the basketball court. The basketball court has a bright light that shines into the window of Charles’ room. Because the light makes it harder to fall asleep, Charles observed what time the light turns off every night. However, after the recent spring time change, the clocks were set forward an hour, but the light schedule shifted accordingly. (So, for example, if before the time change the light went off at 10 PM, after the time change it would go off at 11 PM.) Help Charles figure out when the automatic timer will shut off the light after the new time change.

**The Problem**
Given a time when the basketball court light shuts off before the spring time change, calculate the new time it will turn off after the clocks are set one hour forward.

**The Input**
The first line of input will contain a single positive integer, \( c \) \((c \leq 20)\), representing the number of input cases to process. The input cases follow. Each case will contain an integer \( t \) \((1 \leq t \leq 12)\) representing the time the basketball court light shuts off before the spring time change followed by a space and the string ‘AM’ or ‘PM’.

**The Output**
For each query, output the new time the light will turn off after the clocks are set one hour forward (following the same format as the input).

<table>
<thead>
<tr>
<th>Sample Input</th>
<th>Sample Output</th>
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</table>
| 5
11 AM
2 AM
3 AM
6 PM
7 PM | 12 PM
3 AM
4 AM
7 PM
8 PM |