

C. Clock Conversion

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Given the time in 24-hour format, output the equivalent time in 12-hour format.

- **24-hour format** divides the day into 24 hours from 00 to 23, each of which has 60 minutes from 00 to 59.
- **12-hour format** divides the day into two halves: the first half is AM, and the second half is PM. In each half, the hours are numbered in the order 12, 01, 02, 03, ..., 11. Each hour has 60 minutes numbered from 00 to 59.

Input

The first line contains a single integer t ($1 \leq t \leq 1440$) — the number of test cases.

The only line of each test case contains a string s of length 5 with format `hh:mm` representing a valid time in the 24-hour format. `hh` represents the hour from 00 to 23, and `mm` represents the minute from 00 to 59.

The input will always be a valid time in 24-hour format.

Output

For each test case, output two strings separated by a space ("`hh:mm AM`" or "`hh:mm PM`"), which are the 12-hour equivalent to the time provided in the test case (without quotes).

You should output the time exactly as indicated; in particular, you should not remove leading zeroes.

Example

input	Copy
11	
09:41	
18:06	
12:14	
00:59	
00:00	
14:34	
01:01	
19:07	
11:59	
12:00	
21:37	
output	Copy
09:41 AM	
06:06 PM	
12:14 PM	
12:59 AM	
12:00 AM	
02:34 PM	
01:01 AM	
07:07 PM	
11:59 AM	
12:00 PM	
09:37 PM	

Codeforces Round 937 (Div. 4)

Finished

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Register for practice

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implementation math

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