Problem B. Welcome To Fast!

Time limit 1000 ms
Mem limit 262144 kB

The average life of a **FAST**ian is always on the run! With the mid-2 exams just completed, time flies so quickly that it's already the day before the Final Examinations. As a procrastinator who studies the night before, you find yourself calculating the limited amount of time left until the exams start.

You know that currently, the clock shows h hours and m minutes, where $0 \le h < 24$ and $0 \le m < 60$. *We use the 24-hour time format!*

Your task is to determine how many minutes remain before the exams begin at 0 hours and 0 minutes.

You need to answer t independent test cases.

Input

The first line of the input contains one integer t ($1 \le t \le 1439$) — the number of test cases.

Each of the following t lines describes a specific time case. The i-th line contains the current time given as two integers h and m ($0 \le h < 24$, $0 \le m < 60$). It is guaranteed that this time is **not** midnight, meaning that the following two conditions cannot occur simultaneously: $h = 0$ and $m = 0$. Additionally, both h and m are given without any leading zeros.

Output

For each test case, print the answer on it — the number of minutes before the disaster.

Examples

Input	Output
5 23 55 23 0 0 1 4 20 23 59	5 60 1439 1180 1