

2807 Clock

There is an analog clock with two hands: an hour hand and a minute hand. The two hands form an angle. The angle is measured as the smallest angle between the two hands. The angle between the two hands has a measure that is greater than or equal to 0 and less than or equal to 180 degrees.

Given a sequence of five distinct times written in the format *'hh:mm'*, where *hh* are two digits representing full hours ($00 \leq hh \leq 23$) and *mm* are two digits representing minutes ($00 \leq mm \leq 59$), you are to write a program that finds the median, that is, the third element of the sorted sequence of times in a nondecreasing order of their associated angles. Ties are broken in such a way that an earlier time precedes a later time.

For example, suppose you are given a sequence (06:05, 07:10, 03:00, 21:00, 12:55) of times. Because the sorted sequence is (12:55, 03:00, 21:00, 06:05, 07:10), you are to report 21:00.

Input

The input consists of T test cases. The number of test cases (T) is given on the first line of the input file. Each test case is given on a single line, which contains a sequence of five distinct times, where times are given in the format *'hh:mm'* and are separated by a single space.

Output

Print exactly one line for each test case. The line is to contain the median in the format *'hh:mm'* of the times given. The following shows sample input and output for three test cases.

Sample Input

```
3
00:00 01:00 02:00 03:00 04:00
06:05 07:10 03:00 21:00 12:55
11:05 12:05 13:05 14:05 15:05
```

Sample Output

```
02:00
21:00
14:05
```