

Problem A: Educational journey

The University of Calgary team qualified for the 28th ACM International Collegiate Programming Contest World Finals in Prague, Czech Republic. Just by using the initials of team members they got a very cunning team name: **ACM** (**A**lecs, **C**elly and **M**onny). In order to prepare for the contest, they have decided to travel to Edmonton to learn the tricks of trade from **D**ilbert, Alberta-wide famous top-coder.

Due to a horrible miscommunication which is as welcome as a plague among such teams, **A**, **C** and **M** drive from Calgary to Edmonton in separate cars. To make things worse, there was also a miscommunication with **D**, who being always so helpful, decides to go to Calgary in order to save the team a trip to the far, freezing North. All this happens on the same day and each car travels at a constant (but not necessarily the same) speed on the famous Alberta #2.

A passed **C** and **M** at time t_1 and t_2 , respectively, and met **D** at time t_3 . **D** met **C** and **M** at times t_4 and t_5 , respectively. The question is: at what time time did **C** pass **M**?

The input is a sequence of lines, each containing times t_1 , t_2 , t_3 , t_4 and t_5 , separated by white space. All times are distinct and given in increasing order. Each time is given in the hh:mm:ss format on the 24-hour clock. A line containing -1 terminates the input.

For each line of input produce one line of output giving the time when **C** passed **M** in the same format as input, rounding the seconds in the standard way.

Sample input

```
10:00:00 11:00:00 12:00:00 13:00:00 14:00:00
10:20:00 10:58:00 14:32:00 14:59:00 16:00:00
10:20:00 12:58:00 14:32:00 14:59:00 16:00:00
08:00:00 09:00:00 10:00:00 12:00:00 14:00:00
-1
```

Output for sample input

```
12:00:00
11:16:54
13:37:32
10:40:00
```

Folklore, adapted by P. Rudnicki