

Late for Work (time)

William has just woken up, but he forgot to set the alarm before going to bed, so he is now late for work! However, every cloud has a silver lining: he really needed a long sleep and now he is well rested.



William wants to know how much time he has slept. He looked at the digital clock he has on the nightstand before going to bed, so he knows the hour H_0 and minute M_0 he fell asleep (for example, if he fell asleep at 1:35, H_0 is going to be equal to 1 and M_0 to 35). He also knows that he woke up at the hour H_1 and minute M_1 (for example, if he woke up at 10:15, H_1 is equal to 10 and M_1 to 15). He is also sure that he has slept for less than 24 hours.

Given the time when William fell asleep and the time when he woke up, help him find how much time he has slept.

🔗 Among the attachments of this task you may find a template file `time.*` with a sample incomplete implementation.

Input

The first line contains two integer H_0 and M_0 , the hour and minute when William went to bed. The second line contains two integer H_1 and M_1 , the hour and minute when William woke up.

Output






You need to write a single line with two integers: the time that William spent sleeping in hours and minutes. The number of minutes cannot be greater or equal to 60.

Constraints

- $0 \leq H_0, H_1 < 24$.
- $0 \leq M_0, M_1 < 60$.
- The time when William woke up is different from the time when he fell asleep.

Scoring

Your program will be tested against several test cases grouped in subtasks. In order to obtain the score of a subtask, your program needs to correctly solve all of its test cases.

- **Subtask 1** (0 points) Examples.

- **Subtask 2** (10 points) $H_0 = 0$ and $M_0 = 0$.

- **Subtask 3** (10 points) $H_0 = 0$ and $H_1 = 0$.

- **Subtask 4** (20 points) $H_0 < H_1$.

- **Subtask 5** (60 points) No additional limitations.


Examples

input	output
0 30 8 25	7 55
22 30 7 15	8 45

Explanation

In the **first sample case**, William fell asleep at half past midnight, and woke up at twenty-five past eight AM. This means that he has slept for 7 hours and 55 minutes.

In the **second sample case**, William fell asleep at half past ten PM, and he woke up at a quarter past seven AM. William has slept for 8 hours and 45 minutes.