

Problem 1904: The Number of Full Rounds You Have Played

Problem Information

Difficulty: Medium

Acceptance Rate: 43.41%

Paid Only: No

Tags: Math, String

Problem Description

You are participating in an online chess tournament. There is a chess round that starts every `15` minutes. The first round of the day starts at `00:00`, and after every `15` minutes, a new round starts.

* For example, the second round starts at `00:15`, the fourth round starts at `00:45`, and the seventh round starts at `01:30`.

You are given two strings `loginTime` and `logoutTime` where:

* `loginTime` is the time you will login to the game, and * `logoutTime` is the time you will logout from the game.

If `logoutTime` is **earlier** than `loginTime`, this means you have played from `loginTime` to midnight and from midnight to `logoutTime`.

Return _the number of full chess rounds you have played in the tournament_.

****Note:**** All the given times follow the 24-hour clock. That means the first round of the day starts at `00:00` and the last round of the day starts at `23:45`.

****Example 1:****

****Input:**** loginTime = "09:31", logoutTime = "10:14" ****Output:**** 1 ****Explanation:**** You played one full round from 09:45 to 10:00. You did not play the full round from 09:30 to 09:45 because you logged in at 09:31 after it began. You did not play the full round from 10:00 to

10:15 because you logged out at 10:14 before it ended.

****Example 2:****

****Input:**** loginTime = "21:30", logoutTime = "03:00" ****Output:**** 22 ****Explanation:**** You played 10 full rounds from 21:30 to 00:00 and 12 full rounds from 00:00 to 03:00. $10 + 12 = 22$.

****Constraints:****

* `loginTime` and `logoutTime` are in the format `hh:mm`. * `00 <= hh <= 23` * `00 <= mm <= 59` * `loginTime` and `logoutTime` are not equal.

Code Snippets

C++:

```
class Solution {  
public:  
    int numberOfRounds(string loginTime, string logoutTime) {  
  
    }  
};
```

Java:

```
class Solution {  
public int numberOfRounds(String loginTime, String logoutTime) {  
  
}  
}
```

Python3:

```
class Solution:  
    def numberOfRounds(self, loginTime: str, logoutTime: str) -> int:
```