

Problem 2224: Minimum Number of Operations to Convert Time

Problem Information

Difficulty: [Easy](#)

Acceptance Rate: 66.07%

Paid Only: No

Tags: String, Greedy

Problem Description

You are given two strings `current` and `correct` representing two **24-hour times**.

24-hour times are formatted as `"HH:MM"`, where `HH` is between `"00"` and `"23"`, and `MM` is between `"00"` and `"59"`. The earliest 24-hour time is `"00:00"`, and the latest is `"23:59"`.

In one operation you can increase the time `current` by `"1"`, `"5"`, `"15"`, or `"60"` minutes. You can perform this operation **any** number of times.

Return **the minimum number of operations** needed to convert `current` to `correct`.

Example 1:

Input: `current = "02:30", correct = "04:35"` **Output:** `3` **Explanation:** We can convert `current` to `correct` in 3 operations as follows: - Add 60 minutes to `current`. `current` becomes `"03:30"`. - Add 60 minutes to `current`. `current` becomes `"04:30"`. - Add 5 minutes to `current`. `current` becomes `"04:35"`. It can be proven that it is not possible to convert `current` to `correct` in fewer than 3 operations.

Example 2:

Input: `current = "11:00", correct = "11:01"` **Output:** `1` **Explanation:** We only have to add one minute to `current`, so the minimum number of operations needed is 1.

Constraints:

* `current` and `correct` are in the format `"HH:MM"` * `current <= correct`

Code Snippets

C++:

```
class Solution {  
public:  
    int convertTime(string current, string correct) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int convertTime(String current, String correct) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def convertTime(self, current: str, correct: str) -> int:
```