## **Duration**

The program below receives beginning time and ending time as hour, minute and second then shows the duration between beginning time and ending time as hour, minute and second in condition that the beginning time cannot be less than the ending time

```
h1 = int(input())
m1 = int(input())
s1 = int(input())
h2 = int(input())
m2 = int(input())
s2 = int(input())
t1 = h1*60*60 +
m1*60 + s1
t2 = h2*60*60 + m2*60 + s2
dt = t2 - t1
dh = dt // (60*60)
dt -= dh * 60*60
dm = dt // 60
dt -= dm*60
ds = dt
print(str(dh)+":"+s
tr(dm)+":"+str(ds))
```

For example, if the inputs are 2, 10, 20, 4, 0, 0 separated in each line, the result will be 1:49:40. However, if the inputs are 2, 0, 0, 1, 0, 0 separated in each line, the result will be -1:0:0 which is wrong. The correct result must be 23:0:0

#### Your task

You have to reimplement the program to show the correct result even the ending time is more than, less than or equal to the beginning time (the duration will not be more than 23:59:59)

Hint: If we focus on hours, the calculation on h1 and h2

- ullet Use h2 h1. For example, h1 = 1 to h2 = 2 will be h2 h1 = 2 1 = 1 hour which is work if h2  $\geq$  h1
- When h1 = 2 and h2 = 1 the duration from 2 pm to 1 pm is 23 which equals to 24 + (-1). So, if h2 < h1, the formula should be 24 + (h2 h1)
- If we use (24 + (h2 h1)) % 24, it will be available in both cases (try it yourself)
- From the hint above, we can use to calculate the duration in this problem

## Input

The first 3 line will be beginning time's hour, minute and second in each line. The next 3 line will be ending time's hour, minute and second in each line. (Hour is an integer from 0 to 23. Minute and second are integer from 0 to 59)

#### **Output**

The duration from the beginning time to ending time in hour, minute and second as shown below in Example

# Example

Input (From keyboard)	Output (On screen)
2	1:49:40
10	
20	
4	
0	
0	
18	0:49:50
10	
10	
19	
0	
0	
19	23:10:10
0	
0	
18	
10	
10	