**Racing Times**

There is a famous derby that occurs yearly. Many racers partake in it, and it’s also a great time for the mathematicians to get the statistics of all the racers! I’m also an aspiring mathematician, but I can’t quite seem to get the data right! Do you think you can help me out?

Considering all the racers and their time intervals, can you give me the sum of all the interval lengths? If the intervals overlap in some way, the overlapping times should be counted only once.

**Input:** The first line of input contains **N**, the number of racers. The next **N** lines each contain two integers **S** and **E**, the start and end times of each racer. **Note**: The start is inclusive, but the end is exclusive.

**Output:** The total time of all the racers.

**Example Input:**

3

1 4

7 10

3 5

**Example Output:**

7

**Explanation:** Interval #1 goes through 1 and 4, but it overlaps with interval #3. So in total, the intervals end up being 1, 2, 3, 7, 8, 9, 4 which equal 7.