

# Problem J

## Taj Mahal

Time limit: 5 seconds

*Agra, India*

Agra Cultural Moments (ACM) is organizing tours to the Taj Mahal. They'd like to know the amount of free time they have in their schedule.

Each tour starts at some time and ends at some time. Can you help ACM determine how much time in the schedule has no tours scheduled at all?

Time starts at  $t = 0$ .



The Taj Mahal.  
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### Input

The first line contains two space-separated integers  $n, T$  ( $1 \leq n \leq 10^5$  and  $1 \leq T \leq 10^9$ ), where  $n$  is the number of tours already scheduled, and  $T$  is the time the schedule ends.

Each of the next  $n$  lines contains two space-separated integers  $s_i, e_i$  ( $0 \leq s_i < e_i \leq T$ ), denoting the start and end times for the  $i^{\text{th}}$  tour.

### Output

On one line, output the total time from  $t = 0$  to  $t = T$  where no tour is scheduled.

Sample Input 1	Sample Output 1
<pre>3 100 7 78 10 99 33 98</pre>	<pre>8</pre>
Sample Input 2	Sample Output 2
<pre>7 100 64 67 70 78 46 52 94 100 89 97 51 58 91 98</pre>	<pre>66</pre>