



HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP 0

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

# B. Young Photographer

time limit per test: 2 seconds memory limit per test: 64 megabytes

Among other things, Bob is keen on photography. Especially he likes to take pictures of sportsmen. That was the reason why he placed himself in position  $x_0$  of a long straight racetrack and got ready to take pictures. But the problem was that not all the runners passed him. The total amount of sportsmen, training at that racetrack, equals n. And each of them regularly runs distances within a particular segment of the racetrack, which is the same for each sportsman. For example, the first sportsman runs from position  $a_1$  to position  $b_1$ , the second — from  $a_2$  to  $b_2$ 

What is the minimum distance that Bob should move to have a chance to take pictures of each sportsman? Bob can take a picture of a sportsman, if he stands within the segment that this sportsman covers on the racetrack.

#### Input

The first line of the input file contains integers n and  $x_0$  ( $1 \le n \le 100$ ;  $0 \le x_0 \le 1000$ ). The following *n* lines contain pairs of integers  $a_i$ ,  $b_i$  ( $0 \le a_i$ ,  $b_i \le 1000$ ;  $a_i \ne b_i$ ).

### Output

Output the required minimum distance in the same units as the positions on the racetrack. If there is no such a position, output -1.

#### **Examples**

input	Сору
3 3	
0 7	
0 7 14 2	
4 6	
output	Сору
1	

#### → Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

# Codeforces Beta Round 14 (Div. <u>2)</u> **Finished** Practice

## → Virtual participation

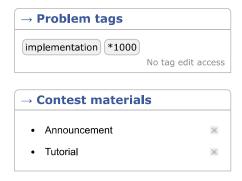
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Start virtual contest





→ Last submissions		
Submission	Time	Verdict
326383869	Jun/28/2025 11:38	Accepted



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Server time: Jun/28/2025 15:39:58<sup>UTC+7</sup> (k3).
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