Student Scholarship Rankings
Problem ID: studentrank

A university is implementing a new scholarship ranking system based on student academic and community engagement metrics. The administration needs to determine how many students share specific ranks to ensure fair distribution of scholarships.

Each student is evaluated based on two primary criteria: their research publication count and community service hours. The ranking system follows strict hierarchical rules to determine student positions.

Your task is to help the university determine how many students share a particular rank k based on their performance metrics.

Input

The input consists of multiple lines:

- The first line contains two integers n and k, where:

    - n represents the total number of students
    - k represents the rank of interest

- The next n lines each contain two integers p_i and h_i:

    - p_i represents the number of research papers published by student i
    - h_i represents the community service hours completed by student i

Constraints

- $1 \le k \le n \le 50$

- $1 \le p_i \le 50$ for each student's paper count

- $1 \le h_i \le 50$ for each student's service hours

Ranking Rules

The ranking system follows these priorities:

- Students with more research papers receive higher ranks

- Among students with equal paper counts, those with more community service hours rank higher

- Students with identical performance metrics share the same rank range

- When students share a rank, they collectively occupy consecutive rank positions

- The rank range for students with identical performance is determined by the number of students with those metrics

Rank Sharing Explanation

When multiple students have identical performance metrics, they collectively occupy consecutive ranks. If three students share the top performance metrics, they will share ranks 1, 2, and 3, with the next different performance level starting at rank 4. Every student with these identical metrics simultaneously holds multiple ranks (1st, 2nd, and 3rd). The fourth student with a different performance level begins at rank 4. Consider a situation where three students have exactly the same performance metrics:

- These three students simultaneously occupy ranks 1, 2, and 3

- Each student is considered to have all three ranks (1st, 2nd, and 3rd) at the same time

- The total number of students with these identical metrics determines the output when querying any of these ranks

- The next student with a different performance level starts at rank 4

This means if you ask about rank 1, rank 2, or rank 3, the answer will always be the total number of students sharing these identical performance metrics

Output

Output a single integer representing the number of students who share the k-th rank.

Sample Input 1	Sample Output 1
7 2 4 10 4 10 4 10 3 20 2 1 2 1 1 10	3

Sample Input 2	Sample Output 2
5 4 3 1 3 1 5 3 3 1 3 1	4