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

- $1 \leq k \leq n \leq 50$
- $1 \leq p_i \leq 50$ for each student's paper count
- $1 \leq h_i \leq 50$ 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 papers and hours share the same rank
- Ranks are consecutive: if three students share the top performance metrics, they occupy ranks 1, 2, and 3, and the next different performance starts at rank 4

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