CSES Problem Set

Movie Festival II

Time limit: 1.00 s **Memory limit:** 512 MB

In a movie festival, n movies will be shown. Syrjälä's movie club consists of k members, who will be all attending the festival.

You know the starting and ending time of each movie. What is the maximum total number of movies the club members can watch entirely if they act optimally?

Input

The first input line has two integers n and k: the number of movies and club members.

After this, there are n lines that describe the movies. Each line has two integers a and b: the starting and ending time of a movie.

Output

Print one integer: the maximum total number of movies.

Constraints

- $1 \le k \le n \le 2 \cdot 10^5$
- $1 \le a < b \le 10^9$

Example

Input:
```
5 2
1 5
8 10
3 6
2 5
6 9
```

Output:
```
4
```

Sorting and Searching

...
Subarray Sums II -
Subarray Divisibility -
Subarray Distinct Values -
Array Division -
Sliding Median -
Sliding Cost -
Movie Festival II -
Maximum Subarray Sum II -

Your submissions