Problem B

Kattis has kk spare beds for visiting kittens. To make things a little bit easier to keep track of, she has made a booking system where kittens can request a bed for one or more nights.

She has just looked into the system, and realized that there are many requests for beds. In fact, there are too many to handle manually. She wants to offer beds to as many different kittens as possible, but she only has kk beds. Can you help her figure out how to accommodate as many kittens as possible?

Note that a kitten will only come if it can stay the whole time it wants to borrow a spare bed.

**Input**

The first line of input contains two integers nn and kk (1≤k<n≤1000001≤k<n≤100000), the number of potential visiting kittens and the number of beds. Then follow nn lines, each containing two integers xixi and yiyi, meaning that kitten ii wants to arrive at time xixi and leave at time yiyi. This means that two kittens ii and jj, where yi=xjyi=xj, can use the same bed, as one kitten leaves at the same time as the other arrives. You may assume that 0≤xi<yi≤10000000000≤xi<yi≤1000000000.

**Output**

Output the maximum number of kittens that can be housed given the requests.

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| **Sample Input 1** | **Sample Output 1** |
| 3 1  1 2  2 3  2 3 | 2 |

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| **Sample Input 2** | **Sample Output 2** |
| 4 1  1 3  4 6  7 8  2 5 | 3 |

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| **Sample Input 3** | **Sample Output 3** |
| 5 2  1 4  5 9  2 7  3 8  6 10 | 3 |