1840. Maximum Building Height

Description

You want to build `n` new buildings in a city. The new buildings will be built in a line and are labeled from `1` to `n`.

However, there are city restrictions on the heights of the new buildings:

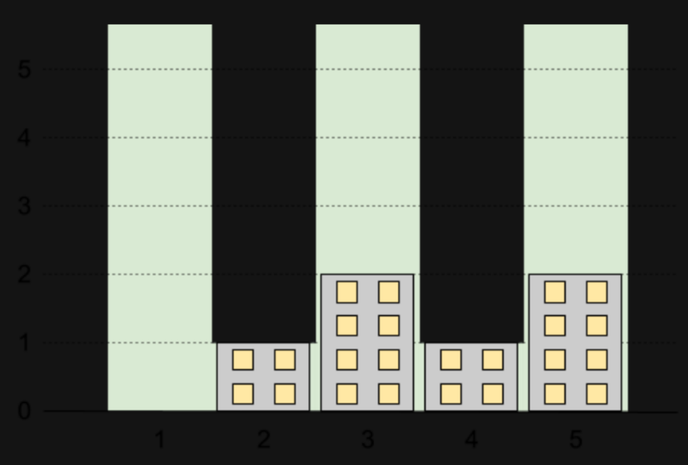
- The height of each building must be a non-negative integer.
- The height of the first building **must** be `0`.
- The height difference between any two adjacent buildings **cannot exceed** `1`.

Additionally, there are city restrictions on the maximum height of specific buildings. These restrictions are given as a 2D integer array `restrictions` where `restrictions[i] = [id_i, maxHeight_i]` indicates that building `id_i` must have a height **less than or equal to** `maxHeight_i`.

It is guaranteed that each building will appear **at most once** in `restrictions`, and building `1` will **not** be in `restrictions`.

Return *the **maximum possible height** of the **tallest** building*.

Example 1:

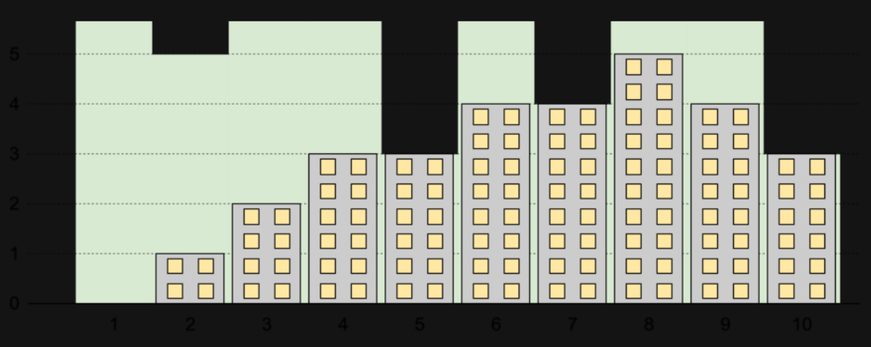



```
Input: n = 5, restrictions = [[2,1],[4,1]]
Output: 2
Explanation: The green area in the image indicates the maximum allowed height for each building.
We can build the buildings with heights [0,1,2,1,2], and the tallest building has a height of 2.
```

Example 2:


```
Input: n = 6, restrictions = []
Output: 5
Explanation: The green area in the image indicates the maximum allowed height for each building.
We can build the buildings with heights [0,1,2,3,4,5], and the tallest building has a height of 5.
```

Example 3:




```
Input: n = 10, restrictions = [[5,3],[2,5],[7,4],[10,3]]
Output: 5
Explanation: The green area in the image indicates the maximum allowed height for each building.
We can build the buildings with heights [0,1,2,3,3,4,4,5,4,3], and the tallest building has a height of 5.
```

Constraints:

- `2 <= n <= 10^9`
- `0 <= restrictions.length <= min(n - 1, 10^5)`
- `2 <= id_i <= n`
- `id_i` is **unique**.
- `0 <= maxHeight_i <= 10^9`