2350. Shortest Impossible Sequence of Rolls

Description

You are given an integer array `rolls` of length `n` and an integer `k`. You roll a `k` sided dice numbered from `1` to `k`, `n` times, where the result of the `i th` roll is `rolls[i]`.

Return *the length of the* ***shortest*** *sequence of rolls that* ***cannot*** *be taken from* `rolls`.

A **sequence of rolls** of length `len` is the result of rolling a `k` sided dice `len` times.

Note that the sequence taken does not have to be consecutive as long as it is in order.

Example 1:

```
Input: rolls = [4,2,1,2,3,3,2,4,1], k = 4
Output: 3
Explanation: Every sequence of rolls of length 1, [1], [2], [3], [4], can be taken from rolls.
Every sequence of rolls of length 2, [1, 1], [1, 2], ..., [4, 4], can be taken from rolls.
The sequence [1, 4, 2] cannot be taken from rolls, so we return 3.
Note that there are other sequences that cannot be taken from rolls.
```

Example 2:

```
Input: rolls = [1,1,2,2], k = 2
Output: 2
Explanation: Every sequence of rolls of length 1, [1], [2], can be taken from rolls.
The sequence [2, 1] cannot be taken from rolls, so we return 2.
Note that there are other sequences that cannot be taken from rolls but [2, 1] is the shortest.
```

Example 3:

```
Input: rolls = [1,1,3,2,2,2,3,3], k = 4
Output: 1
Explanation: The sequence [4] cannot be taken from rolls, so we return 1.
Note that there are other sequences that cannot be taken from rolls but [4] is the shortest.
```

Constraints:

- `n == rolls.length`
- `1 <= n <= 10 5`
- `1 <= rolls[i] <= k <= 10 5`