

2728. Count Houses in a Circular Street

Description

You are given an object `street` of class `Street` that represents a circular street and a positive integer `k` which represents a maximum bound for the number of houses in that street (in other words, the number of houses is less than or equal to `k`). Houses' doors could be open or closed initially.

Initially, you are standing in front of a door to a house on this street. Your task is to count the number of houses in the street.

The class `Street` contains the following functions which may help you:

- `void openDoor()` : Open the door of the house you are in front of.
- `void closeDoor()` : Close the door of the house you are in front of.
- `boolean isDoorOpen()` : Returns `true` if the door of the current house is open and `false` otherwise.
- `void moveRight()` : Move to the right house.
- `void moveLeft()` : Move to the left house.

Return `ans` *which represents the number of houses on this street.*

Example 1:

Input: `street = [0,0,0,0]`, `k = 10`

Output: 4

Explanation: There are 4 houses, and all their doors are closed.
The number of houses is less than `k`, which is 10.

Example 2:

Input: `street = [1,0,1,1,0]`, `k = 5`

Output: 5

Explanation: There are 5 houses, and the doors of the 1st, 3rd, and 4th house (moving in the right direction) are open, and the rest are closed.
The number of houses is equal to `k`, which is 5.

Constraints:

- `n == number of houses`
- `1 <= n <= k <= 103`

