

3. Racing Car

Chris is playing the "Racing Car" arcade game. In this game, Chris is controlling a car that can move sideways but the car keeps moving forward at all times. Chris can move the car into any lane at any moment. When changing lanes, the racecar can move *through* an obstacle. It cannot move *to* a lane that is occupied. For example, if the racecar is in lane 1 and lane 2 is occupied, it can move to lane 3, but not to lane 2. There are some obstacles on the track. There are 3 lanes in the game and Chris starts the game from the middle lane. Determine the minimum sideways movement needed in order to complete the game. Note that a movement at one moment, be it from lane 1 to lane 2 or from lane 1 to lane 3, is counted as a single movement.

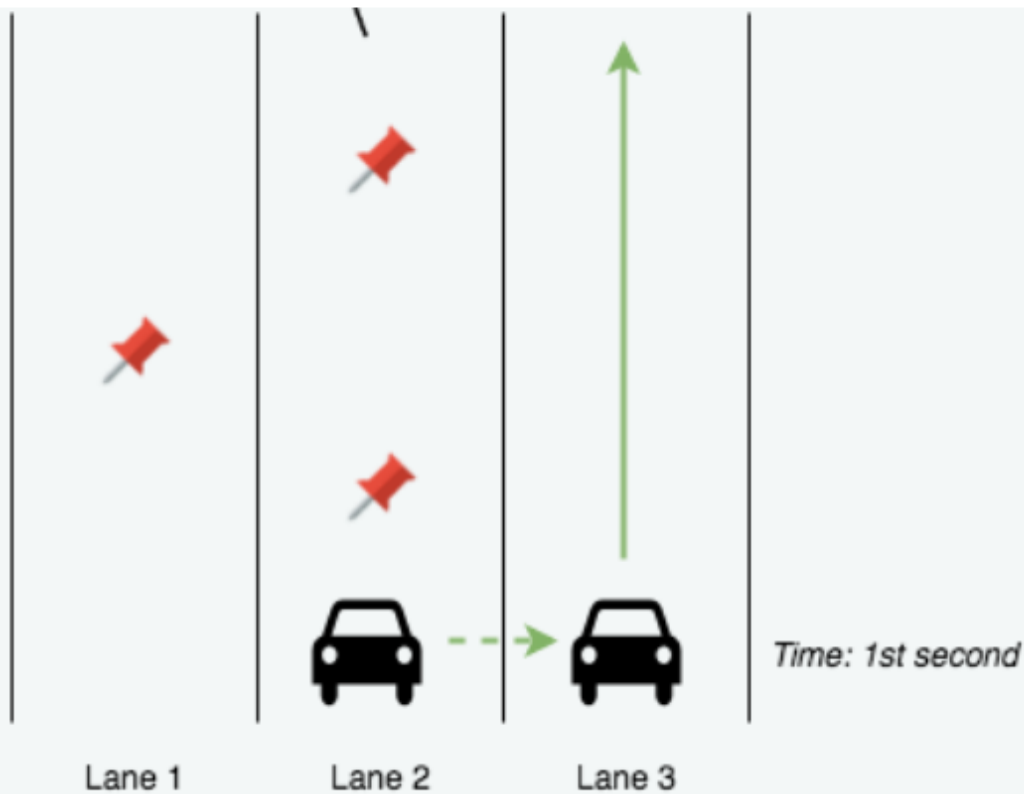
Example

$n = 3$

$obstacleLanes = [2, 1, 2]$

Chris can move the car in the first second to lane 3 and finish the race. The total number of motions required is 1.





Function Description

Complete the function *minimumMovement* in the editor below.

minimumMovement has the following parameter(s):

int obstacleLanes[n]: the lanes in which each obstacle is present

Returns

int: the minimum sideways movements that Chris must make to successfully complete the game

Constraints

- $1 \leq n \leq 10^5$
- $1 \leq \text{obstacleLanes}[i] \leq 3$ ($0 \leq i < n$)
- All races can be completed.

▼ Input Format For Custom Testing

The first line contains an integer, n , denoting the number of elements in *obstacleLanes*. Each line i of the n subsequent lines (where $0 \leq i < n$) contains an integer describing *obstacleLanes*[i].

▼ Sample Case 0

Sample Input For Custom Testing

STDIN	Function
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3	→ obstacleLanes[] size n = 3
2	→ obstacleLanes = [2, 1, 2]
1	
2	

Sample Output

1

Explanation

Chris can move the car to the 3rd lane in the first second and will not need to move the car again. Refer to the image in the problem statement.

▼ Sample Case 1

Sample Input For Custom Testing

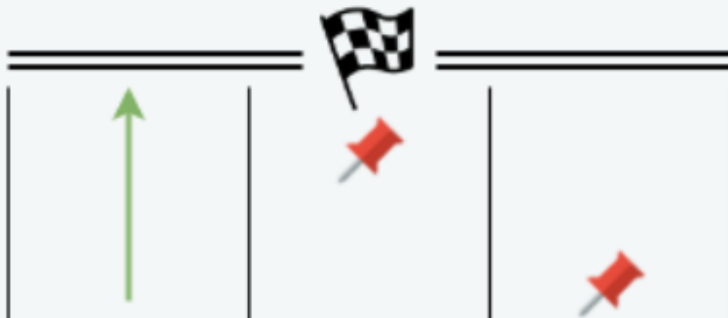
4
2
1
3
2

Sample Output

2

Explanation

Chris can move the car to the 3rd lane in the first second and to the 1st lane in the third second for a total of 2 movements.





Lane 1



Lane 2



Lane 3

Time: 3rd second

Time: 1st second