

1590. Make Sum Divisible by P

Description

Given an array of positive integers `nums`, remove the **smallest** subarray (possibly **empty**) such that the **sum** of the remaining elements is divisible by `p`. It is **not** allowed to remove the whole array.

Return *the length of the smallest subarray that you need to remove, or -1 if it's impossible*.

A **subarray** is defined as a contiguous block of elements in the array.

Example 1:

Input: `nums = [3,1,4,2], p = 6`

Output: `1`

Explanation: The sum of the elements in `nums` is 10, which is not divisible by 6. We can remove the subarray `[4]`, and the sum of the remaining elements is 6, which is divisible by 6.

Example 2:

Input: `nums = [6,3,5,2], p = 9`

Output: `2`

Explanation: We cannot remove a single element to get a sum divisible by 9. The best way is to remove the subarray `[5,2]`, leaving us with `[6,3]` with sum 9.

Example 3:

Input: `nums = [1,2,3], p = 3`

Output: `0`

Explanation: Here the sum is 6. which is already divisible by 3. Thus we do not need to remove anything.

Constraints:

- `1 <= nums.length <= 105`
- `1 <= nums[i] <= 109`
- `1 <= p <= 109`

