

Subarray Sums Divisible by K

Given an integer array `nums` and an integer `k`, return *the number of non-empty **subarrays** that have a sum divisible by `k`.*

A **subarray** is a **contiguous** part of an array.

Example 1:

Input: `nums = [4,5,0,-2,-3,1]`, `k = 5`

Output: 7

Explanation: There are 7 subarrays with a sum divisible by `k = 5`:

`[4, 5, 0, -2, -3, 1]`, `[5]`, `[5, 0]`, `[5, 0, -2, -3]`, `[0]`, `[0, -2, -3]`, `[-2, -3]`

Example 2:

Input: `nums = [5]`, `k = 9`

Output: 0

Constraints:

- $1 \leq \text{nums.length} \leq 3 \cdot 10^4$
- $-10^4 \leq \text{nums}[i] \leq 10^4$
- $2 \leq k \leq 10^4$