523. Continuous Subarray Sum

Description

Given an integer array nums and an integer k, return `true` *if* `nums` *has a* ***good subarray*** *or* `false` *otherwise*.

A **good subarray** is a subarray where:

- its length is **at least two**, and
- the sum of the elements of the subarray is a multiple of `k`.

Note that:

- A **subarray** is a contiguous part of the array.
- An integer `x` is a multiple of `k` if there exists an integer `n` such that `x = n * k`. `0` is **always** a multiple of `k`.

Example 1:

```
Input: nums = [23, 2,4 ,6,7], k = 6
Output: true
Explanation: [2, 4] is a continuous subarray of size 2 whose elements sum up to 6.
```

Example 2:

```
Input: nums = [ 23,2,6,4,7 ], k = 6
Output: true
Explanation: [23, 2, 6, 4, 7] is an continuous subarray of size 5 whose elements sum up to 42.
42 is a multiple of 6 because 42 = 7 * 6 and 7 is an integer.
```

Example 3:

```
Input: nums = [23,2,6,4,7], k = 13
Output: false
```

Constraints:

- `1 <= nums.length <= 10^5`
- `0 <= nums[i] <= 10^9`
- `0 <= sum(nums[i]) <= 2^31 - 1`
- `1 <= k <= 2^31 - 1`