

446. Arithmetic Slices II - Subsequence

Given an integer array `nums`, return the number of all the arithmetic subsequences of `nums`.

A sequence of numbers is called arithmetic if it consists of at least three elements and if the difference between any two consecutive elements is the same.

For example, `[1, 3, 5, 7, 9]`, `[7, 7, 7, 7]`, and `[3, -1, -5, -9]` are arithmetic sequences.

For example, `[1, 1, 2, 5, 7]` is not an arithmetic sequence.

A subsequence of an array is a sequence that can be formed by removing some elements (possibly none) of the array.

For example, `[2,5,10]` is a subsequence of `[1,2,1,2,4,1,5,10]`.

The test cases are generated so that the answer fits in 32-bit integer.

Example 1:

- **Input:** `nums = [2,4,6,8,10]`
- **Output:** 7
- **Explanation:** All arithmetic subsequence slices are:
 - `[2,4,6]`
 - `[4,6,8]`
 - `[6,8,10]`
 - `[2,4,6,8]`
 - `[4,6,8,10]`
 - `[2,4,6,8,10]`
 - `[2,6,10]`

Example 2:

- **Input:** `nums = [7,7,7,7,7]`
- **Output:** 16
- **Explanation:** Any subsequence of this array is arithmetic.

Constraints:

- $1 \leq \text{nums.length} \leq 1000$
- $-2^{31} \leq \text{nums}[i] \leq 2^{31} - 1$