1087. Longest Arithmetic Subsequence

Difficulty : Medium

https://leetcode.com/problems/longest-arithmetic-subsequence

Given an array `nums` of integers, return *the length of the longest arithmetic subsequence in* `nums`.

Note that:

- A **subsequence** is an array that can be derived from another array by deleting some or no elements without changing the order of the remaining elements.
- A sequence `seq` is arithmetic if `seq[i + 1] - seq[i]` are all the same value (for `0 <= i < seq.length - 1`).

Example 1:

```
Input: nums = [3,6,9,12]
Output: 4
Explanation:  The whole array is an arithmetic sequence with steps of length = 3.
```

Example 2:

```
Input: nums = [9,4,7,2,10]
Output: 3
Explanation:  The longest arithmetic subsequence is [4,7,10].
```

Example 3:

```
Input: nums = [20,1,15,3,10,5,8]
Output: 4
Explanation:  The longest arithmetic subsequence is [20,15,10,5].
```

Constraints:

- `2 <= nums.length <= 1000`
- `0 <= nums[i] <= 500`