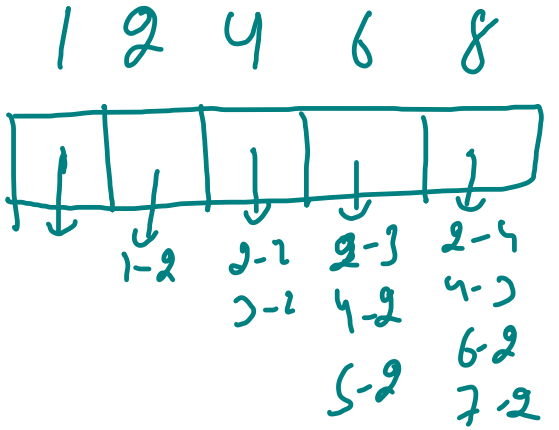
1027. Longest Arithmetic Sequence

Medium 543 32 Add to List Share

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

Recall that a *subsequence* of `A` is a list `A[i_1], A[i_2], ..., A[i_k]` with `0 <= i_1 < i_2 < ... < i_k <= A.length - 1`, and that a sequence `B` is *arithmetic* if `B[i+1] - B[i]` are all the same value (for `0 <= i < B.length - 1`).

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Input: [3,6,9,12]
Output: 4
Explanation:
The whole array is an arithmetic sequence with steps of length
= 3.
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Input: [9,4,7,2,10]
Output: 3
Explanation:
The longest arithmetic subsequence is [4,7,10].
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Input: [20,1,15,3,10,5,8]
Output: 4
Explanation:
The longest arithmetic subsequence is [20,15,10,5].
```