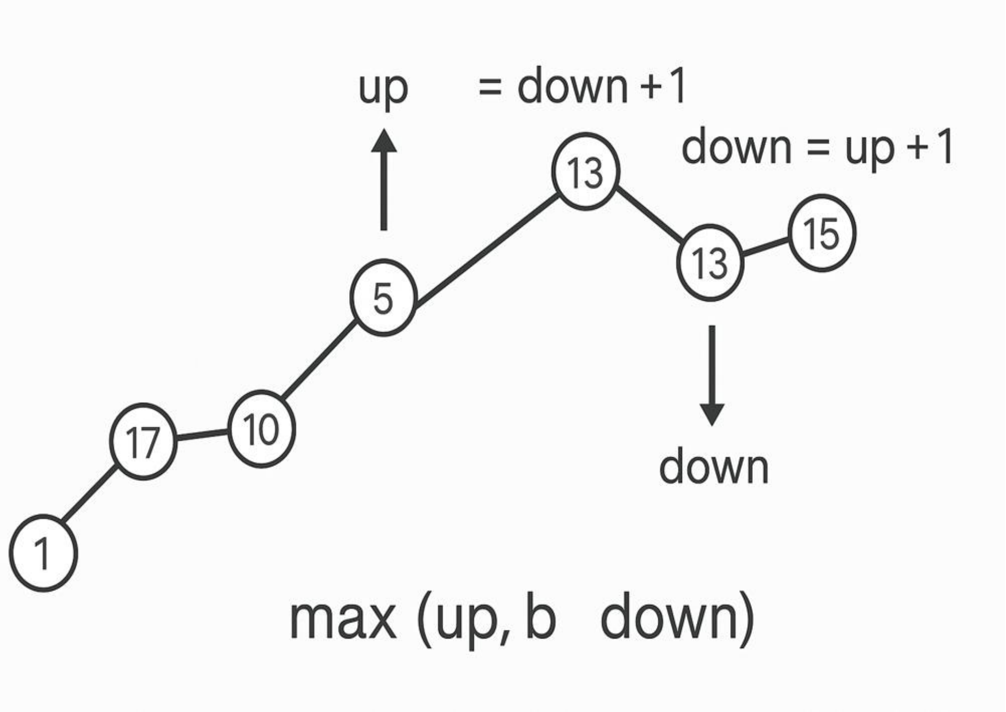
Approach

To find the longest wiggle subsequence, we don't need to store the whole sequence — just track trends: up and down. Each time the trend changes, we extend our subsequence.

Approach



1. Initialize two counters: up and down, both as 1.
2. Loop through the array:
   - If current > previous → it's an upward wiggle → update up = down + 1.
   - If current < previous → it's a downward wiggle → update down = up + 1.
   - If equal → skip.
3. Return the maximum of both.

This technique shines for its constant space and clean logic.

Complexity

Time Complexity:
(O(n)) — single pass through the array.

Space Complexity:
(O(1)) — only two variables used.