**Understanding Recursive Algorithms:**

* **Recursion:**
  + Recursion is a powerful programming technique where a function calls itself directly or indirectly.
  + It simplifies certain problems by breaking them down into smaller, similar subproblems.
  + Key components of a recursive function:
    - Base case(s): The condition(s) under which the recursion stops.
    - Recursive case: The part where the function calls itself with modified parameters.

**Analysis:**

* **Time Complexity:**
  + The recursive algorithm has a time complexity of O(n), where n is the number of forecast steps.
* **Optimization:**
  + To avoid excessive computation, consider memoization (caching intermediate results) to reuse previously calculated values.
  + Alternatively, use an iterative approach (e.g., dynamic programming) for better efficiency.