**1. Understand Recursive Algorithms**

**What is Recursion?**

Recursion is when a method **calls itself** to solve a smaller part of the same problem.  
Example: Calculating compound interest over n years by computing the result for n-1 years first.

**Recursive definition** of future value with compound growth:

FutureValue(years) = FutureValue(years - 1) \* (1 + growthRate)

**2. Setup — Recursive Forecasting Method**

**Requirements:**

* Input:
  + initialAmount (double)
  + growthRate (double, e.g., 0.05 for 5%)
  + years (int)
* Output:
  + Future value after given years