**📘 1. Understanding Recursive Algorithms**

**✅ What is Recursion?**

Recursion is a programming technique where a function **calls itself** to solve a smaller instance of the problem.

**📊 Why use Recursion in Financial Forecasting?**

It helps break down forecasting into a **step-by-step calculation**, where each future value depends on the previous one, such as:

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

**⚙️ 2. Setup**

We’ll create a recursive function to calculate the future value of an investment given:

* Initial value
* Annual growth rate (e.g., 5% = 0.05)
* Number of years