# Exercise 7 - Financial Forecasting

public class Main {

public static double futureValue(double presentValue, double rate, int periods) {

if (periods == 0) {

return presentValue;

}

return futureValue(presentValue, rate, periods - 1) \* (1 + rate);

}

public static void main(String[] args) {

double initialAmount = 1000.0;

double growthRate = 0.05; // 5%

int years = 20;

double forecast = futureValue(initialAmount, growthRate, years);

System.out.printf("Future value after %d years: $%.2f\n", years, forecast);

}

}

