EXERCISE 02:

A dose of **200 mg** of a drug was administered by rapid intravenous (IV) bolus to a **70 kg** patient. The plasma concentrations of this active ingredient followed a one-compartment model with a half-life of **18 hours**. A volume of distribution of **0.571 L/kg** was determined.

1. Write the equation for the curve Cp = f(t) obtained in this patient.
2. Determine the total plasma clearance.
3. What blood concentration would be expected in the same subject **18 hours** after administering **1 g** of this drug via IV? If another **1 g** of the same drug is administered via IV at that moment, what will be the maximum blood concentration reached?