Unit 4: Rational Functions

1. A medicine is given at a dosage of 200 mg. The concentration in the bloodstream after t hours is modeled by:
   a. $C(t) = \dfrac{200}{t+2}$
   b. What is the vertical asymptote? What does it mean in context?
   c. Find the concentration at t=2 hours.
2. Simplify and state any restrictions:

$$\frac{x^2 - 9}{x^2 - x - 6}$$