Study Guide for Chapter 9

1) Definition of the rate of a reaction, the rate of consumption for a reactant, and the rate of formation for a product.

2) What are elementary reactions? Definitions of the 0th, 1st and 2nd order reactions.

3) What is the rate constant or coefficient?

4) Are the stoichiometric coefficients the same as the powers in a rate equation?

5) Rate equations for these reactions.

6) What is a half-life? Half-life for 0th and 1st order reactions.

7) How to distinguish 0th and 1st order reactions based on kinetic data, such as the plots of [A] vs time, $\ln([A]0/[A])$ vs time, $\ln[A]$ vs time?