

# Rate orders

Pre-lesson assignment- textbook page 272-3 and 282-3

**First watch the video tutorial.**

## Define the following terms

- Order of reaction
- Rate constant

## Make notes on rate orders

*Use the following questions as guidance*

Assume that there is only one reactant for the following examples.

1. If doubling a reactant's (**A**) concentration has no effect on the reaction rate,
  - a. what is the order of reaction with respect to **A**?
  - b. what is the rate equation with respect to **A**?
  - c. Sketch a graph of Rate/concentration for **A**.
2. If doubling a reactant's (**B**) concentration doubles the rate,
  - a. what is the order of reaction with respect to **B**?
  - b. what is the rate equation with respect to **B**?
  - c. Sketch a graph of Rate/concentration for **A**.
3. If doubling a reactant's (**C**) concentration quadruples the rate,
  - a. what is the order of reaction with respect to **C**?
  - b. what is the rate equation with respect to **C**?
  - c. Sketch a graph of Rate/concentration for **A**.