Rate Laws

Pre-lesson assignment- textbook page 273-276

Define the following terms

- Rate Equation

Make notes on rate equations

Use the following questions as guidance

1. For a reaction A + B → C + D it is found that the reaction is second order with respect to A and is first order with respect to B.
    a. Show how a rate equation can be written for this reaction.
    b. Show how the overall order can be calculated.
    c. Show that the units of k are $dm^6\ mol^{-2}\ s^{-1}$
    d. If the concentration of A is 1 mol dm^{-3} and the concentration of B is 0.5 mol dm^{-3}, the rate is measured as 1.2×10^{-4} mol $dm^{-3}\ s^{-1}$. Show that k = 2.4×10^{-4} $dm^6\ mol^{-2}\ s^{-1}$