

26 Rate equations and orders – Part 1

—Answers

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Work through these after trying the questions yourself.

26.1 How the rate depends on the reactant concentrations.

26.2 The order of reaction with respect to A.

26.3 The sum of the individual orders ($m + n$).

26.4 By experiment.

26.5 Zero order.

26.6 The order with respect to B is 2. Since $\text{rate} \propto [\text{B}]^2$, doubling [B] multiplies the rate by $2^2 = 4$ —the rate becomes four times larger.