

Chemguide – answers

ORDERS OF REACTION

1. a) Rate = $k[B]^2$
The overall order is 2 (zero order with respect to A plus second order with respect to B).
 - b) Rate = $k[A][B]$
The overall order is 2 (first order with respect to A plus first order with respect to B.)
 - c) Rate = $k[A]$
The overall order is 1.
 - d) Rate = $k[A][B]$
The overall order is 2 (first order with respect to A plus first order with respect to B.)
2. a) Rate constant
 - b) k will change with a change of temperature, or addition of a catalyst, or change of an existing catalyst.
 - c) Square brackets around a substance mean that you are talking about its concentration in mol dm^{-3} .