CONCEPT: RATE CONSTANT UNITS

●*Units* of the rate constant (k) differ depending on the overall reaction _____.

Rate Constant (κ) Units

●Rate constant (k) _____ are as follows:

Overall Reaction Order	Units of Rate Constant (κ)
_____ Order Reaction	_____ or (_____)
_____ Order Reaction	_____ or (_____)
_____ Order Reaction	_____ or (_____)

●Note that all contain _____ as part of the units.

□ The _____ of the unit *exponents* indicates the overall reaction order.

EXAMPLE: What are the rate constant units for the following rate law? $v = k[HI]^2$.

a) $M\ s^{-1}$. b) s^{-1}. c) $M^{-1}\ s^{-1}$. d) $M^{-1}\ s$.

PRACTICE: Determine the units for each of the 3 rate constants below in the enzyme-catalyzed reaction.

k_1 units: _____

k_{-1} units: _____

k_2 units: _____