

$$C_p = C_p^{\circ} e^{-kt}$$

$$\ln C_p = \ln C_p^{\circ} - kt$$

$$V_d = DB^{\circ} / C_p^{\circ}$$

$$t_{1/2} = \frac{0.693}{k}$$

$$C_p = A e^{-at} + B e^{-bt}$$

$$C_p^{\circ} = A + B$$

$$Cl_R = \frac{Du^{\infty}}{FD^{\circ}} Cl_T = fe Cl_T$$

$$Cl_R = \frac{ke}{k} Cl_T$$

$$Cl_h = Cl_T - Cl_R$$

$$C_p = A (e^{-kt} - e^{-k_a t})$$

$$A = \frac{Fk_a D_0}{V_d (k_a - k)}$$

$$t_{\max} = \frac{\ln(k_a / k)}{k_a - k}$$

$$AUC = \frac{F \cdot Dose}{Cl}$$

$$C_p = \frac{R}{V_d k}$$

$$Cl_T = \frac{R}{C_{ss}}$$

$$D_L = C_{ss} V_d \quad C_{ss} = R / Cl$$

$$D_L = \frac{R}{k} \quad fe = \frac{Du^{\infty}}{FD^{\circ}} = \frac{ke}{k}$$

$$D_L = \frac{R \cdot t_{1/2}}{0.693}$$

$$Cl_T = \frac{k C_p V_d}{C_p} = k V_d$$

$$Cl_T = \frac{FD^{\circ}}{[AUC]_o^{\infty}} \quad Cl_R = \frac{Du^{\infty}}{[AUC]_o^{\infty}}$$