

Old  
 $\text{Dose} = 180 e^{-kT}$

$$\text{dose} = 98 e^{-kT} + 82$$

$$\frac{120 - 82}{98} = \frac{38}{98}$$

$$98/38 = 2.58$$

$$\ln 2.58 = \frac{1}{k} \ln 2.58$$

$$k = \frac{\ln 2.58}{1} = 0.94$$

New  
 $\text{dose} = \frac{180 - 180}{e} - kT + \dots$

$$\text{Dose} = 108 e^{-kT} + 72$$

$$120 = 108 e^{-kT} + 72$$

$$\frac{120 - 72}{108} = e^{-kT}$$

$$k = 2.58$$

$$\ln \frac{158}{48} = k \cdot 22.5$$

$$\frac{120}{72} = \frac{5}{3}$$

$$\ln 2.25$$

$$\frac{120}{72} = \frac{5}{3}$$

$$\frac{k}{22.5}$$

$$\text{Dose} = 108 \times (2.25) + 72$$

$$\text{Dose} = \frac{108}{5} + 72$$

22

$$\text{Dose} = 246$$

(94 sec)

270  
 122.5  
 147.5

147

$k = 2.2$

122.5 sec

$\frac{d}{Q} e^{-ktI}$

$$Dose_L = \frac{d}{Q}$$

$$\frac{I}{I_{\infty}} = \frac{t}{t_{\infty}}$$

$$= \frac{d}{Q}$$

$$\frac{d}{Q} = d e^{-ktI}$$

Const.

$$Dose = \frac{d}{Q} + (d - \frac{d}{Q}) e^{-ktI}$$

$$Dose I - Dose II =$$

$$Dose = \left(\frac{100}{Q}\right) + 100 e^{-ktI}$$

$$Dose = 75 + 105 e^{-ktI}$$

$$\ln \left[ \frac{Dose - 75}{105} \right]$$

$$\ln \frac{105}{Dose - 75} = ktI$$

for $I = 45$
$\ln = 2.133$
for $I = 22.5$
$\frac{105}{45} \ln = 0.85$

$$I = \begin{pmatrix} \frac{1}{5} & -\frac{1}{5} \\ \frac{1}{5} & -1 \end{pmatrix}$$

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~~$$L = x_0 + y_0 [1 + \dots]$$~~

$$L = x_0 + y_0 [e^{-\alpha I t} e^{-\lambda t}]$$

$$L = x_0 + y_0 [e^{-\lambda t}]$$

$$\frac{L - x_0}{y_0} = e^{-\lambda t}$$

$$\lambda t = \ln \frac{y_0}{L - x_0}$$

$$\lambda = \frac{1}{t} \ln \frac{y_0}{L - x_0}$$

$$= \frac{1}{3} \ln \frac{y_0}{\frac{L}{D} - \frac{x_0}{D}}$$

$$= \frac{1}{3} \ln \frac{1 - \frac{1}{5}}{\frac{1}{5} - \frac{1}{5}} = \frac{1}{3} \ln \frac{.533}{.654 - .467}$$

$$\frac{1}{3} \ln 2.85 = \frac{1}{3} (1.045) = 0.35$$

8710  
459  
411  
755  
459  
296

95  
112  
112

657  
459  
198

580  
459  
121

411  
541

$$x_0 = \frac{1}{8}$$

$$x_0 + y_0 = 0$$

$$\frac{x_0}{5} + \frac{y_0}{5} = 1$$

$$\frac{y_0}{5} = 1 - \frac{x_0}{5}$$

654  
467  
187

$$\left( \frac{\frac{L}{D} - \frac{1}{\phi}}{1 - \frac{1}{\phi}} \right)^{\frac{1}{n}} = e^{-I_0 t}$$

$$\ln y = -n I_0 t$$

$$n \ln \left( \frac{\frac{L}{D} - \frac{1}{\phi}}{1 - \frac{1}{\phi}} \right) = -I_0 t$$

$$\ln \left( \frac{\frac{L}{D} - \frac{1}{\phi}}{1 - \frac{1}{\phi}} \right) =$$

$$\ln \left( \frac{1 - \frac{1}{\phi}}{\frac{L}{D} - \frac{1}{\phi}} \right) = \frac{1}{n} I_0 t$$

$$Q = 2.18$$

$$\ln \left( \frac{1.541}{\left( \frac{L}{200} - 0.459 \right)} \right) \ln y = e^{-n I_0 t}$$

$$\ln y = e^{-n I_0 t}$$

$$\ln \dot{y} =$$

$$\begin{array}{r} 191 \\ 95 \\ \hline 96 \\ 105 \end{array}$$

$$\begin{array}{r} 177 \\ 95 \\ \hline 82 \end{array}$$

$$0.98 = \tau_{1/2}$$

$$\lambda = \frac{0.693}{0.98}$$

$$\begin{array}{r} 541 \\ 459 \end{array}$$

$$\begin{array}{r} 585 \\ 459 \\ \hline 126 \end{array}$$

$$\begin{array}{r} 520 \\ 459 \\ \hline 61 \end{array}$$

$$\begin{array}{r} 735 \\ 459 \\ \hline 276 \end{array}$$

$$\begin{array}{r} 840 \\ 459 \\ \hline 381 \end{array}$$

$$\begin{array}{r} 687 \\ 459 \\ \hline 228 \end{array}$$

$$\begin{array}{r} 906 \\ 459 \\ \hline 441 \end{array}$$

$$\begin{array}{r} 946 \\ 459 \\ \hline 487 \end{array}$$

$$\begin{array}{r} 885 \\ 459 \\ \hline 426 \end{array}$$

$$\begin{array}{r} 693 \\ 0.81 \end{array}$$

$$\begin{array}{r} 955 \\ 459 \\ \hline 496 \end{array} \quad \begin{array}{r} 985 \\ 459 \\ \hline 526 \end{array}$$

$$\begin{array}{r} 520 \\ 459 \\ \hline 61 \end{array} \quad \begin{array}{r} 541 \\ 459 \\ \hline 82 \end{array} \quad \begin{array}{r} 585 \\ 459 \\ \hline 126 \end{array} \quad \begin{array}{r} 687 \\ 459 \\ \hline 228 \end{array} \quad \begin{array}{r} 735 \\ 459 \\ \hline 276 \end{array} \quad \begin{array}{r} 840 \\ 459 \\ \hline 381 \end{array} \quad \begin{array}{r} 906 \\ 459 \\ \hline 441 \end{array} \quad \begin{array}{r} 946 \\ 459 \\ \hline 487 \end{array} \quad \begin{array}{r} 834 \\ 459 \\ \hline 375 \end{array}$$