3.10 $\mathrm{I} = 20\, e^{\frac{-\mathrm{R}t}{\mathrm{L}}}$

$\frac{\mathrm{I}}{20} = e^{\frac{-\mathrm{R}t}{\mathrm{L}}}$

$\ln\left(\frac{\mathrm{I}}{20}\right) = \frac{-\mathrm{R}t}{\mathrm{L}}$

$\mathrm{L}\, \ln\left(\frac{\mathrm{I}}{20}\right) = -\mathrm{R}\, t$

$t = -\dfrac{\mathrm{L}\, \ln\left(\frac{\mathrm{I}}{20}\right)}{\mathrm{R}} = \dfrac{\mathrm{L}\, \ln\left(\frac{20}{\mathrm{I}}\right)}{\mathrm{R}}$