

62. We solve for  $t$  from  $R = R_0 e^{-\lambda t}$ :

$$t = \frac{1}{\lambda} \ln \frac{R_0}{R} = \left( \frac{5730 \text{ y}}{\ln 2} \right) \ln \left[ \left( \frac{15.3}{63.0} \right) \left( \frac{5.00}{1.00} \right) \right] = 1.61 \times 10^3 \text{ y} .$$