Carbon Dating with Carbon-14

Assumption: \[
\frac{\text{Level of C-14 in past-day bone when animal just died}}{\text{Level of C-14 in present-day bone when animal just died}} = \frac{g(t)}{g_0} = e^{-kt}
\]

\[g_0 = \text{level of C-14 now in specimen bone of the present,}\]
\[g(t) = \text{level of C-14 now in specimen bone of the past,}\]

\[k \approx 5730 \text{ years.}\]