P #F

Ch 29 - Worksheet

a) $t_{1/2} = 5730$ yrs

$R_0 = 231$ counts/sec

$t = 5730$ yrs $= 1$ half-life

$R = \frac{1}{2}(231 \text{ counts/sec})$

$\boxed{R = 116 \text{ counts/sec}}$

b) $t = 11,460$ yrs $= 2$ half-lives

$R = \frac{1}{2} \cdot \frac{1}{2} \cdot (231 \text{ counts/sec})$

$\boxed{R = 57.8 \text{ counts/sec}}$