2.5) $N = N_0 e^{-t/\tau}$ $\quad \delta N_i = \sqrt{N_i}$

$\ln N = \ln N_0 - t/\tau$

$\delta^2(\ln N) = \left(\frac{\partial \ln N}{\partial N}\right)^2 \delta^2 N_i = \frac{1}{N^2} N = \frac{1}{N}$

$\delta(\ln N) = \frac{1}{N}$

let $y = \ln N$ $\quad \delta y = \frac{1}{N}$

$y = y_0 - t/\tau$

using equations for straight line, we get:

$\tau = 21.7 \pm 0.2 \mu s$

Oregon Tax Credit - Choosing to Take Credit or Deduction http://www.irs.gov/businesses/small/article/0,,id=97703,00.