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CH 1

Radioactive Decay  
differential eq.

$$Nu(t) = \# \text{ of nuclei @ time } (t)$$

$$\frac{dNu}{dt} = -\frac{Nu}{T} \rightarrow \text{time constant}$$

analytical solution

$$Nu = Nu(0) e^{-t/T}$$

↑  
@ t=0

Numerical Approach (Taylor Expansion)

$$Nu(t+\Delta t) = Nu(t) + \frac{dNu}{dt} \Delta t$$

Radioactive Decay Graph

