



# ACT: Radioactivity

Decays per second,  
or “activity”

$$\frac{\Delta N}{\Delta t} = -\lambda N$$

No. of nuclei  
present

decay constant

Start with 16  $^{14}\text{C}$  atoms.

After 6000 years, there are only 8 left.

How many will be left after another 6000 years?

1) 0

2) 4

3) 8