

**30** The half-life of  $^{219}_{86}\text{Rn}$  is 4.0 s.

What is the activity after 3.4 s when the initial sample size at time  $t = 0$  s is 1.5 mol of  $^{219}_{86}\text{Rn}$ ?

- A**  $1.4 \times 10^{19}$  Bq      **B**  $8.7 \times 10^{22}$  Bq      **C**  $1.3 \times 10^{23}$  Bq      **D**  $7.7 \times 10^{23}$  Bq