

- 28** The half-life of a radioactive substance is 752 s. The background count is found to be  $8.3 \text{ s}^{-1}$ . A Geiger Muller (GM) counter reads  $77.3 \text{ s}^{-1}$  when the GM tube is placed near a radioactive sample.

What will be the reading on the GM counter 280 s later?

- A**  $53.3 \text{ s}^{-1}$
- B**  $59.7 \text{ s}^{-1}$
- C**  $61.6 \text{ s}^{-1}$
- D**  $68.0 \text{ s}^{-1}$