

- 30** Today, the activity of a sample of caesium-137 is  $4.0 \times 10^5$  Bq. The half-life of caesium-137 is 33 years.

What is the best estimate of the number of caesium-137 nuclei that will decay in the next two days?

A  $5.0 \times 10^8$

B  $1.2 \times 10^9$

C  $6.9 \times 10^{10}$

D  $9.5 \times 10^{12}$

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