

- 29** Today, the activity of a sample of caesium-137 is 4.0×10^5 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** 5.0×10^8 **B** 1.2×10^9 **C** 6.9×10^{10} **D** 9.5×10^{12}

- 30** A nucleus X decays into a nucleus Y by emitting an alpha particle followed by two beta