

- 37** A nucleus of uranium-238,  $^{238}_{92}\text{U}$ , decays in a series of steps to form a nucleus of lead-206,  $^{206}_{82}\text{Pb}$ , as shown.



An  $\alpha$ -particle or a  $\beta^-$  particle is emitted during each step.

What is the total number of  $\beta^-$  particles that are emitted?

- A** 6                      **B** 8                      **C** 10                      **D** 16