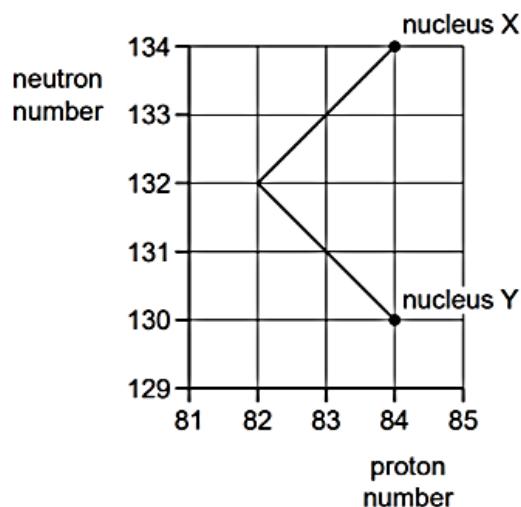


X is a radioactive nucleus. It goes through a series of decays until Y, which is stable, is formed.



What are emitted during the series of decays?

**A**

one  $\alpha$ -particle followed by one  $\beta$ -particle

**B**

one  $\alpha$ -particle followed by two  $\beta$ -particles

**C**

two  $\alpha$ -particles followed by one  $\beta$ -particle

**D**

two  $\alpha$ -particles followed by two  $\beta$ -particles

