

**39** The uranium nucleus  $^{238}_{92}\text{U}$  undergoes  $\alpha$ -decay, producing nucleus X.

Nucleus X undergoes  $\beta$ -decay, producing nucleus Y.

For nucleus Y, what are the values of the proton number and nucleon number?

	proton number	nucleon number
<b>A</b>	89	234
<b>B</b>	89	236
<b>C</b>	91	234
<b>D</b>	91	236

**40** Radon 220 is radioactive and decays to polonium 216 with the emission of an  $\alpha$  particle. The