7 **(a)** A nucleus X decays by emitting a β^+ particle to form a new nucleus, $^{23}_{11}\text{Na}$.

State the number of nucleons and the number of neutrons in nucleus X.

number of nucleons = ...

number of neutrons = ...

[2]

(b) State one similarity and one difference between a β^+ particle and a β^- particle.

similarity: ....

difference: ....

[2]

[Total: 4]