

**28** An electron has a kinetic energy  $E$  and a de Broglie wavelength  $\lambda$ .

The kinetic energy of the electron is increased to  $9E$ .

What is now the de Broglie wavelength of the electron?

**A**  $\frac{\lambda}{3}$

**B**  $\frac{\lambda}{9}$

**C**  $3\lambda$

**D**  $9\lambda$

**29** The nucleus of an isotope of bismuth is represented as  $^{212}\text{Bi}$ :