

27 An electron moves with a constant velocity of $1.5 \times 10^6 \text{ m s}^{-1}$. Its momentum is measured to a precision of 0.20%.

What is the uncertainty associated with its position along its direction of travel?

- A** $2.4 \times 10^{-7} \text{ m}$
- B** $3.9 \times 10^{-8} \text{ m}$
- C** $1.2 \times 10^{-10} \text{ m}$
- D** $1.9 \times 10^{-10} \text{ m}$