

- 12** A particle of mass $5.0 \times 10^{-3} \text{ kg}$ performing simple harmonic motion of amplitude 150 mm takes 47 s to make 50 oscillations.

What is the maximum kinetic energy of the particle?

- A** $2.0 \times 10^{-3} \text{ J}$ **B** $2.5 \times 10^{-3} \text{ J}$ **C** $3.9 \times 10^{-3} \text{ J}$ **D** $5.0 \times 10^{-3} \text{ J}$