

- 12** A particle of mass  $5.0 \times 10^{-3}$  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**  $2.0 \times 10^{-3}$  J      **B**  $2.5 \times 10^{-3}$  J      **C**  $3.9 \times 10^{-3}$  J      **D**  $5.0 \times 10^{-3}$  J