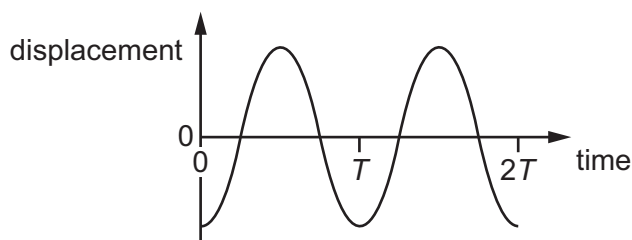


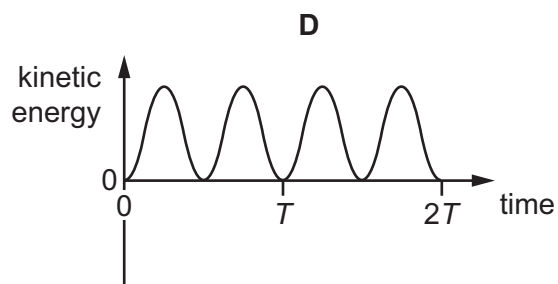
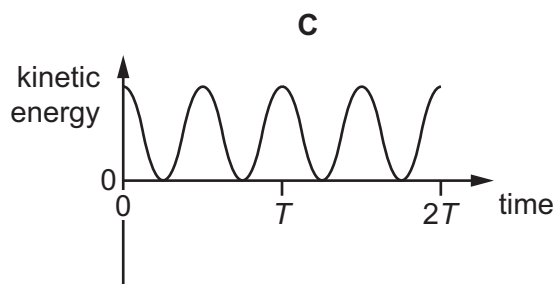
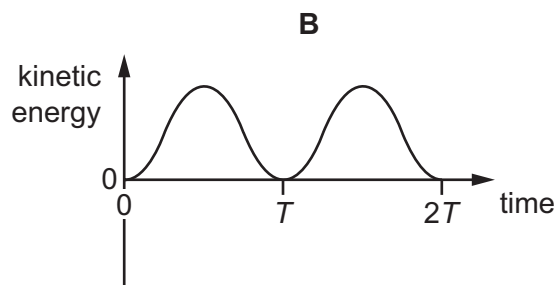
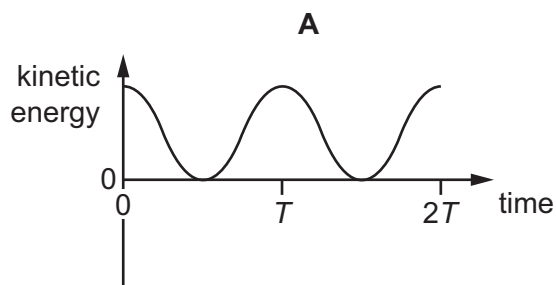
22 Which statement about electromagnetic radiation is correct?

- A** Waves of wavelength $5 \times 10^{-9} \text{ m}$ are high-energy gamma rays.
- B** Waves of wavelength $3 \times 10^{-8} \text{ m}$ are ultra-violet waves.
- C** Waves of wavelength $5 \times 10^{-7} \text{ m}$ are infra-red waves.
- D** Waves of wavelength $9 \times 10^{-7} \text{ m}$ are light waves.

23 When sound travels through air, the air particles vibrate. A graph of displacement against time for a single air particle is shown.



Which graph best shows how the kinetic energy of the air particle varies with time?



Space for working