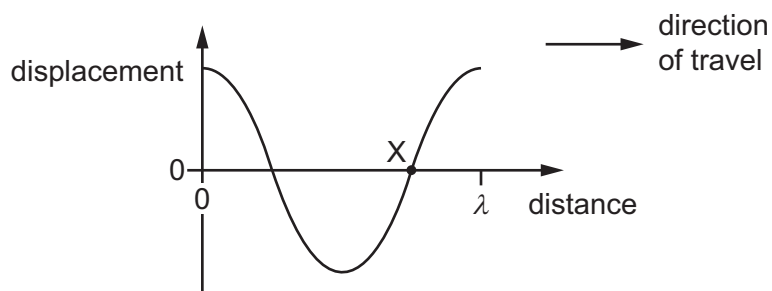


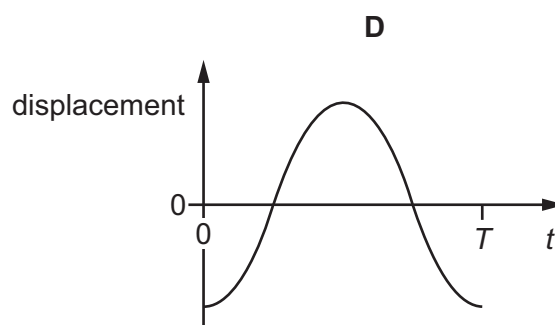
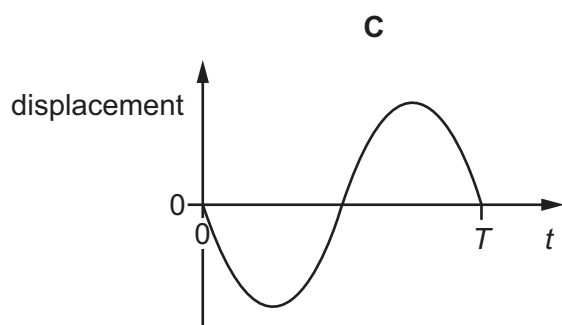
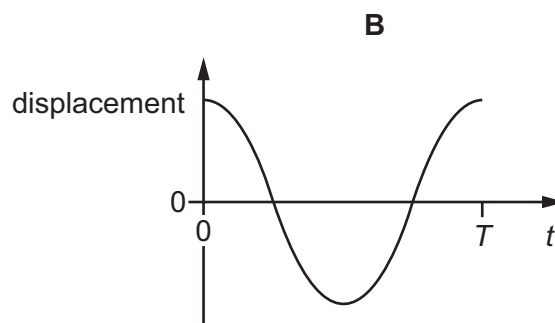
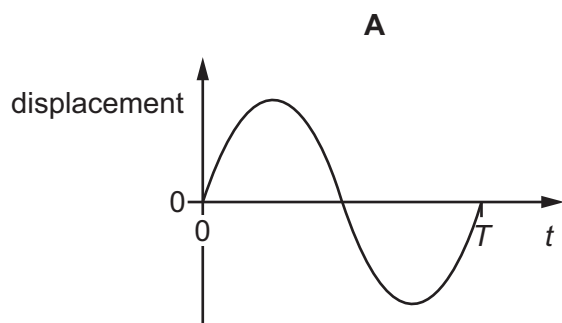
- 21** A transverse wave on a rope has wavelength  $\lambda$  and period  $T$ .

The graph shows the variation of the displacement of the particles of the rope with distance in the direction of travel of the wave at time  $t = 0$ .



A particle X is labelled.

Which graph shows the variation of the displacement of particle X with time  $t$ ?



- 22** Which statement about all types of transverse waves is correct?

- A** They all have the same speed.
- B** They all have vibrations that are parallel to the direction of propagation of energy.
- C** They can all form stationary waves.
- D** They can all travel through a vacuum.