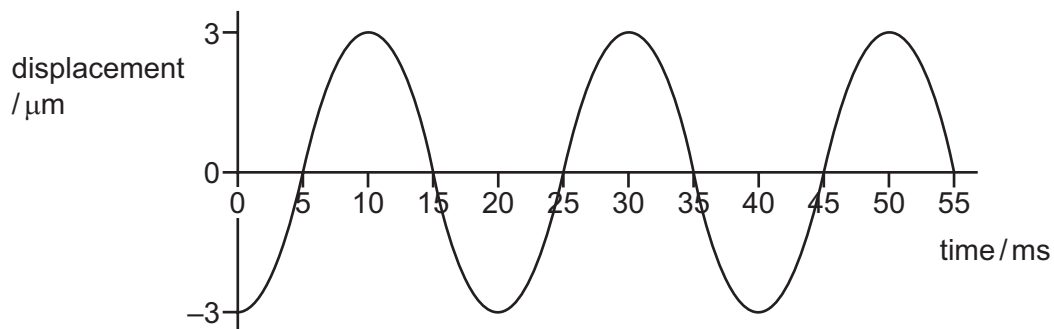


21 Which statement about light waves and sound waves is **not** correct?

- A Light waves and sound waves can both demonstrate the Doppler effect.
- B Light waves are transverse waves and sound waves are longitudinal waves.
- C Light waves can be diffracted but sound waves cannot.
- D Light waves can travel in a vacuum but sound waves cannot.

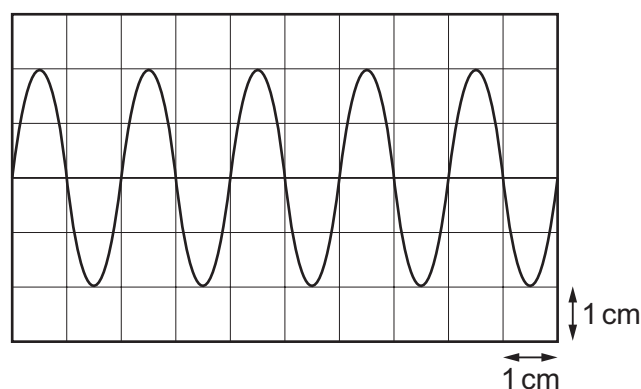
22 The graph represents a sound wave.



Which statement is correct?

- A The wave is longitudinal and has a period of 25 ms.
- B The wave is longitudinal and has a frequency of 50 Hz.
- C The wave is transverse and has an amplitude of $3\text{ }\mu\text{m}$.
- D The wave is transverse and has a wavelength of 20 ms.

23 A cathode-ray oscilloscope (CRO) is used to display a wave of frequency 5.0 kHz . The display is shown.



What is the time-base setting of the CRO?

- A $10\text{ }\mu\text{s cm}^{-1}$
- B $100\text{ }\mu\text{s cm}^{-1}$
- C 10 ms cm^{-1}
- D 100 ms cm^{-1}