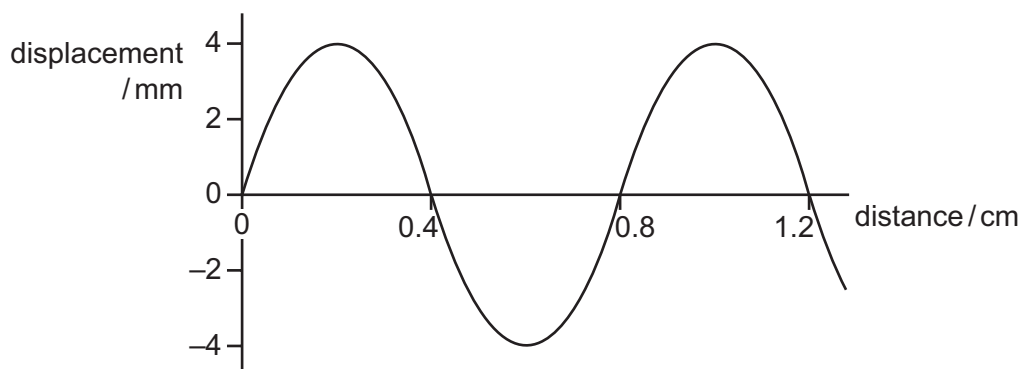


- 23 A vibrating rod makes a water wave in a ripple tank. The graph shows the displacement of the wave at one instant as it travels away from the rod. The wave speed is  $2.0 \text{ cm s}^{-1}$ .



What is the frequency of the wave?

- A** 0.8 Hz      **B** 1.6 Hz      **C** 2.5 Hz      **D** 5.0 Hz
- 24 Polarisation is a phenomenon associated with a certain type of wave.
- Which condition **must** be fulfilled if a wave is to be polarised?
- A** It must be a light wave.  
**B** It must be a longitudinal wave.  
**C** It must be a radio wave.  
**D** It must be a transverse wave.
- 25 Monochromatic light passes through two narrow slits and produces an interference pattern on a screen some distance away. The interference fringes are very close together.
- Which change would **increase** the distance between the fringes?
- A** Increase the brightness of the light source.  
**B** Increase the distance between the slits and the screen.  
**C** Increase the distance between the two slits.  
**D** Increase the frequency of the light used.
- 26 The following statements describe the diffraction of waves passing through a narrow slit.
- Which statement is **not** correct?
- A** Both transverse and longitudinal waves can be diffracted.  
**B** Diffraction can only be seen with light when the light is monochromatic.  
**C** Red light diffracts through a greater angle than blue light.  
**D** The angle of diffraction increases when the width of the slit decreases.