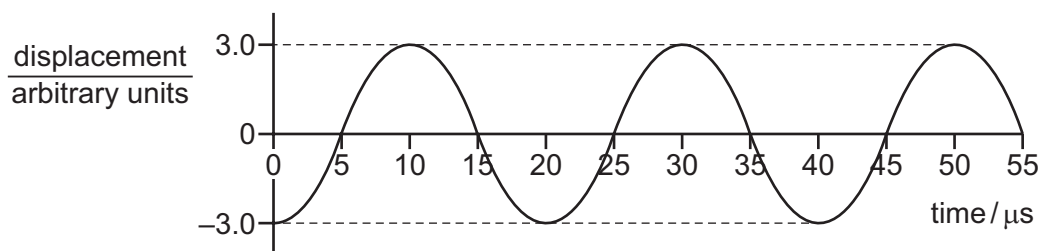


- 23** The graph shows the variation with time of the displacement of an electromagnetic wave at a point.



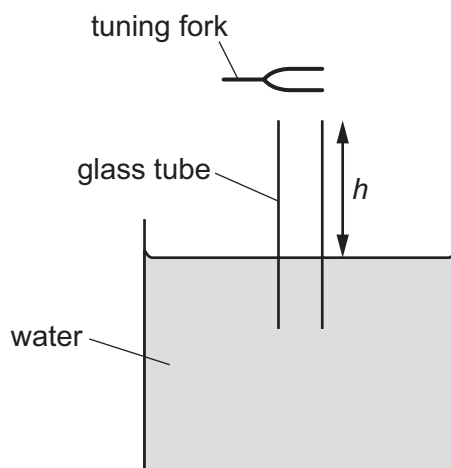
The wave is travelling in a vacuum.

What is the amplitude and what is the wavelength of the wave?

| | amplitude / arbitrary units | wavelength / m |
|----------|--------------------------------|-------------------|
| A | 3.0 | 6000 |
| B | 6.0 | 6000 |
| C | 3.0 | 7500 |
| D | 6.0 | 7500 |

- 24** A long glass tube is almost completely immersed in a large tank of water. A tuning fork is struck and held just above the open end of the tube as it is slowly raised.

A louder sound is first heard when the height h of the end of the tube above the water is 18.8 cm. A louder sound is next heard when h is 56.4 cm. The speed of sound in air is 330 m s^{-1} .



What is the frequency of the sound produced by the tuning fork?

- A** 220 Hz **B** 440 Hz **C** 660 Hz **D** 880 Hz