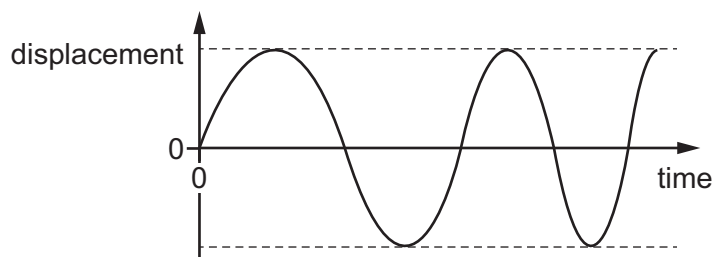
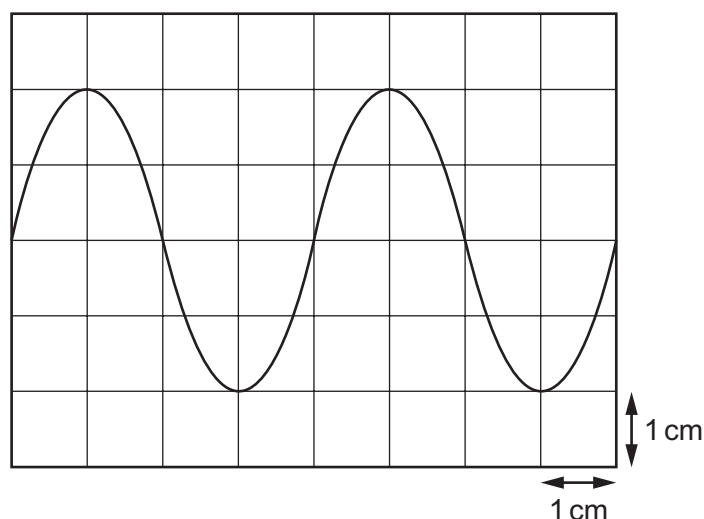


- 23 The displacement–time graph for an air particle in the path of a sound wave is shown.



Which property of the sound wave must be increasing?

- A amplitude
 - B frequency
 - C period
 - D speed
- 24 A sound wave is displayed on the screen of a cathode-ray oscilloscope (CRO) as shown.



The time-base of the CRO is set at 2.5 ms cm^{-1} .

What is the frequency of the sound wave?

- A 50 Hz
 - B 100 Hz
 - C 200 Hz
 - D 400 Hz
- 25 The horn of a train emits sound of frequency f_1 . While the horn is sounding, the train moves directly towards a stationary person. The speed of the train is $0.20v$, where v is the speed of sound.

The frequency of the sound heard by the person is f_2 .

What is the ratio $\frac{f_1}{f_2}$?

- A $\frac{0.80}{1}$
- B $\frac{1}{1.2}$
- C $\frac{1.2}{1}$
- D $\frac{1}{0.80}$