

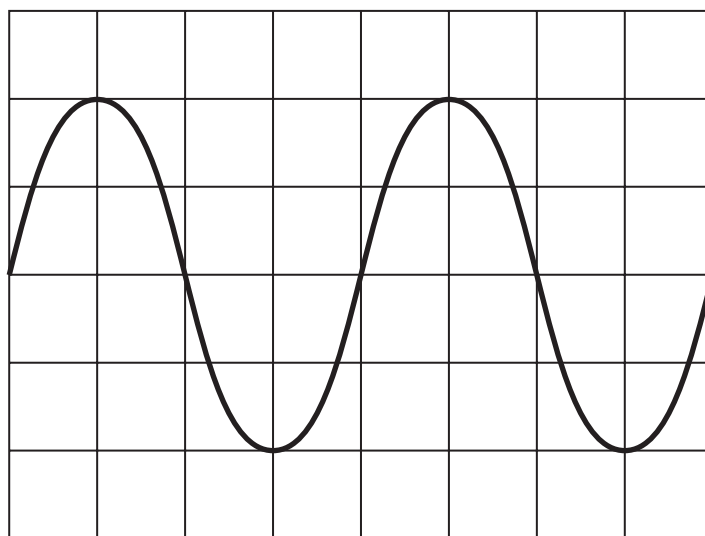
3 (a) Which statement about sound waves is correct?

(1)

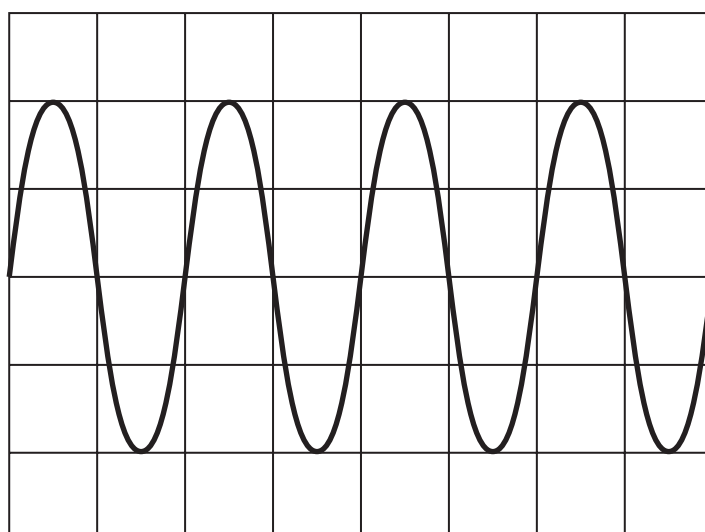
- ☐ A sound waves cannot be reflected
- ☐ B sound waves are electromagnetic
- ☐ C sound waves are longitudinal
- ☐ D sound waves are transverse

(b) A microphone is connected to a data logger, which displays each sound wave as a graph.

The diagrams show the graphs for two different sound waves.



Sound wave P



Sound wave Q

The graphs have the same scales.

In the horizontal direction: 1 square = 0.001 s



(i) The amplitude of sound wave Q is

(1)

- ☐ **A** larger than the amplitude of sound wave P
- ☐ **B** smaller than the amplitude of sound wave P
- ☐ **C** the same as the amplitude of sound wave P
- ☐ **D** zero

(ii) The frequency of sound wave P is 250 Hz.

Find the time period of sound wave P.

(1)

time period = s

(iii) Find the frequency of sound wave Q.

(1)

frequency = Hz

(Total for Question 3 = 4 marks)

