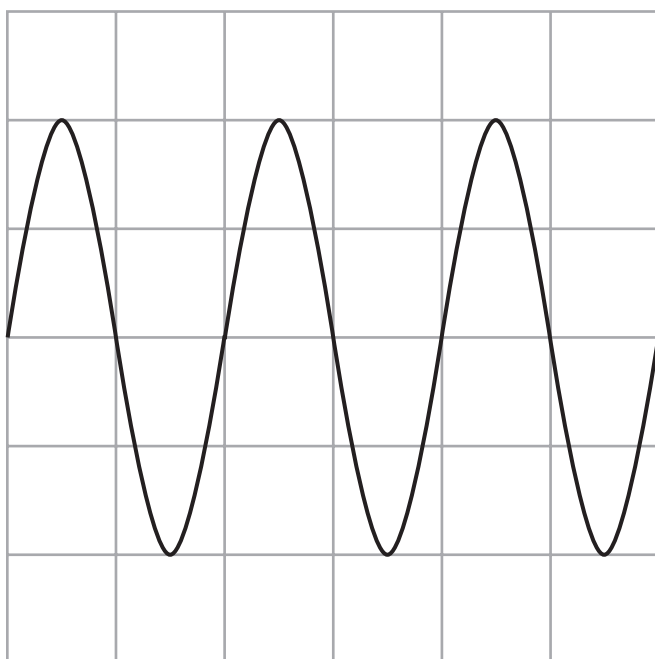


3 (a) Which of these statements about sound waves is **not** correct?

(1)

- ☐ A sound waves can be refracted
- ☐ B sound waves are transverse
- ☐ C sound waves can be diffracted
- ☐ D sound waves transmit energy

(b) A student uses a microphone and an oscilloscope to display a sound wave. The diagram shows the trace on the oscilloscope screen.



oscilloscope settings:

y direction: 1 square = 1 V

x direction: 1 square = 0.01 s

(i) Calculate the frequency of this sound wave.

(3)

frequency = ..... Hz

(ii) On the diagram, draw the signal for a quieter sound wave of a higher pitch.

(2)

**(Total for Question 3 = 6 marks)**

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

