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_	This question is about sound	
5	This question is about sound.	
	(a) Describe an investigation to measure the speed of sound in air.	
	You may draw a diagram to help your answer.	
	Tournay aran a diagram to help your answer	(6)
		(0)
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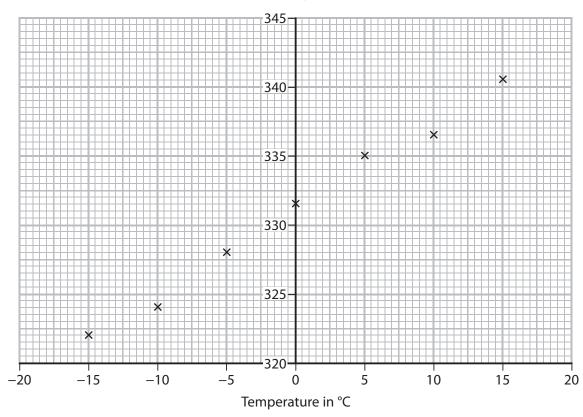
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(b) The speed of sound changes when the temperature changes.

A student investigates how the speed of sound in air varies with temperature.

The student's results are shown on the graph.

Speed of sound in m/s



(i) Draw a line of best fit on the graph.

- (1)
- (ii) Use the graph to find the speed of sound when the air temperature is 20 °C.
- (2)
- speed of sound = m/s

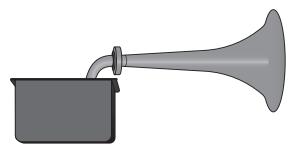
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(iii) A ship moves about in fog.

A foghorn is used to make a loud, low-pitched sound to warn any nearby ships.



The air temperature decreases while the foghorn emits sound waves of a constant frequency.

Explain how this decrease in temperature affects the wavelength of the sound waves.

(2)

(Total for Question 5 = 11 marks)

