

Question number	Answer	Notes	Marks
4 (a)	(i) measure the distance between microphones; suitable instrument to measure distance; use of speed = distance ÷ time;	e.g. ruler / tape measure	3
	(ii) idea that time will be very small / too hard to measure by a human;	allow idea that human reaction time is an issue ignore speed of sound is very fast / eq.	1
(b)	(i) idea that air needs to be same temperature at all points between microphones;	allow idea that speed will change if temperature not constant ignore 'fair test'	1
	(ii) correctly calculate average; given to 1 decimal place; e.g. 59.97 = 1 mark 60.0 = 2 marks	DOP 59.9 scores 1 mark allow 59.96, 60	2
	(iii) point at (40, 358) circled;		1
	(iv) repeat it / discard it;	allow repeat experiment condone 'ignore it'	1
	(v) line graph suitable for continuous data; both variables are continuous;	allow 'data is continuous'	2
	(vi) idea that speed increases as temperature increases; idea of a linear relationship;	ignore positive correlation reject mark if relationship described as directly proportional	2

Total for Question 4 = 13 marks