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