

Question number	Answer	Notes	Marks
2 (a)	300 (metres);		1
(b)	0.554; any answer given to 2 sf; correct answer = 0.55 (s) e.g. $(0.50+0.62+0.52+0.58+0.55)/5 = 0.554$ (s) = 0.55 (s) to 2 s.f.	mark independently	2
(c)	difference in distance is 180 m; recall of equation: speed = distance / time taken; substitution; correct evaluation; correct answer = 330 (m/s) e.g. speed = $(300 - 120)/0.55$ speed = $180/0.55$ speed = 327.2727... (m/s)	allow use of standard symbols e.g. $v = d/t$ condone s for v, s for d ECF incorrect distance and ECF incorrect time from (b) answer is 327.2727... (m/s) answer is 324.90... (m/s) if 0.554(s) is used	4
(d)	human reaction time;	accept alternative valid variables e.g. wind speed, temperature, humidity, air pressure	1

Total for Question 2: 8 marks