

Question	Scheme		Marks
<b>6(e)</b>		(A) Condone missing 4	B1
		(B) Condone graph going beyond $T = 7$ Must go beyond 3.5. Condone no 3.	B1
		(A) Condone graph going beyond $T = 7$ Must go beyond 3.5. B0 if see a <u>solid</u> vertical line. Sometimes very difficult to see. If you think it is there, give the mark.	B1
			<b>(3)</b>
	Condone separate diagrams.		
	<b>Alternative for (c)</b> for candidates with a sketch like this: 	Treat as a special case.  B1B1B0 on the graph and then max 5/8 for (c) if they do not solve for the $T$ in the question.	B1 B1 B0
	$\frac{1}{2} \times 3 \times (T + 3.5)^2 = \frac{1}{2} \times 4 \times 3.5^2 + 14T$	Use diagram to find area	M1
		One distance correct	A1
		Both distances correct	A1
	$12T^2 - 28T - 49 = 0$	Simplify to a 3 term quadratic in $T$	M1
		Correct quadratic	A1
	$(2T - 7)(6T + 7) = 0$	Complete method to solve for the $T$ in the question	M1
	$T = \frac{7}{2}$ or $-\frac{7}{6}$	Correct solution(s) - can be implied if only ever see Total = 7	A1
	Total time = 7		A1
			<b>(8)</b>
<b>(17 marks)</b>			