Question	Answer	Mark	Comments
1	**Alternative method 1**		
	280 ÷ 35 or 8	M1	oe eg 80 ÷ 10
	(350 – 280) ÷ (40 – 35) or 70 ÷ 5 or 14	M1	oe
	6	A1	
	Alternative method 2		
	320 or 350 – 320 or 30 or 350 – 280 and 320 – 280 or 70 and 40	M1	oe
	(350 – 320) ÷ 5 or (70 – 40) ÷ 5 or 30 ÷ 5	M1dep	oe
	6	A1	
	Additional Guidance		
	Do not allow a misread from the graph		
	Alt 2 40 must come from 320 – 280 and not 40 hours worked		

Q	Answer	Mark	Comments
2(a)	6 seconds	B1	

Q	Answer	Mark	Comments
2(b)	Correct tangent drawn at 6 seconds	B1	
	Correct gradient for their tangent	B1ft	ft their tangent, which must be an increasing straight line
	m/s	B1	oe eg metres per second or mps
	Additional Guidance		
	If no tangent is drawn the maximum mark possible is B0B0B1		
	Allow the units to be given in working lines if no units on the answer line		

Q	Answer	Mark	Comments
3(a)	3	B1	
	Correct method for gradient eg $\frac{40-16}{15-\text{their } 3}$ or $\frac{24}{12}$	M1	oe eg $\frac{30-25}{10-7.5}$ or $\frac{10}{5}$ or $40-38$
	2	A1ft	correct or ft their 3
	Additional Guidance		
	Note that their 3 can be used to work out the rate but does not have to be		
	Values seen on graph must be used correctly eg 24 and 12 seen on the graph is M0 unless subsequently used correctly in attempt to work out the gradient		
	A1ft answers must be to 1 dp or better eg 3.5 $\frac{40-16}{15-3.5}$ 2.1 (accept 2.08…)		B0 M1 A1ft
	After B0 the method may be implied (use $\frac{40-16}{15-\text{their } 3}$ to check) eg 6 2.7 (accept 2.66…)		B0 M1A1ft
	If the report is blank, 3 and 2 must be unambiguously identified in working to be acceptable		
	Allow 2 to be written as $\frac{2}{1}$		

Q	Answer	Mark	Comment
4(a)	Correct tangent drawn where charge is 90%	M1	
	Correct gradient for their tangent	A1	
	Additional Guidance		
	No tangent drawn		M0A0