

	$M(B) \quad (R_D \times 0.36) = W(1.26 - x)$	
Question Number	Scheme	Marks
5(a)	$P$ to $Q$	M1
	$6x = \left( \frac{u + 2u}{2} \right) 12$	
	<b>OR</b> $6x = 12u + \frac{1}{2} \times \frac{u}{12} \times 12^2$	
5(a)	<b>OR</b> $(2u)^2 = u^2 + 2 \times \frac{u}{12} \times 6x$	A1*
	Reaches given answer from correct working $x = 3u$ *	
		(2)
5(b)	$Q$ to $R$	M1 A1
	e.g. $(3u)^2 = (2u)^2 + 2(1.5)(15u)$	
	$u = 9$	A1
		(3)
5(c)	$Q$ to $S$ ( $t = 14$ position)	M1 A1
	$QS = 2u \times 2 + \frac{1}{2} \times 1.5 \times 2^2$	
	$(4u + 3) + 18u$	M1
	201 (m)	A1
		(4)
(9)		
	<b>NOTES</b>	
(a) M1 A1*	Considers $P$ to $Q$ and forms a relevant equation in terms of $u$ and $x$ Reaches given answer from correct working	
(b) M1	Uses the given answer in (a) to form an equation in $u$ only <b>N.B.</b> If brackets missing, allow M1, but allow recovery.	
A1	Correct unsimplified equation in $u$ only	
A1	Correct answer	
(c) M1	Complete method to find the distance travelled in the 2 seconds after passing $Q$	
A1	Correct unsimplified expression in $u$ only (or 39 m)	
M1	Complete method to find the required distance (need $18u$ or $6x$ )	
A1	Correct answer	