11	**(i)**		$a = k + 0.06t$ $k + 0.06(20) = 1.3$ $k = 1.3 - 1.2 = 0.1$	**B1** **M1** **A1** **[3]**	**1.1** **1.1** **1.1**	E E E	Use of $t = 20$ and $a = 1.3$ in their a	
11	**(ii)**		$s = 0.05t^2 + 0.01t^3 (+c)$ $t = 0, s = 0 \Rightarrow c = 0$ $t = 20, v = 14$ $s_1 = 0.05(20)^2 + 0.01(20)^3$ $25^2 = 14^2 + 2(1.3)s_2$ Total distance $= s_1 + s_2 = 265$ m	**M1*** **A1ft** **B1** **B1ft** **dep*M1** **M1** **A1** **[7]**	**3.1a** **1.1** **2.1** **1.1** **3.4** **3.3** **2.2a**	E E A E C A A	Attempt to integrate – all powers increased by 1 (but not just multiplying by t) $s = \frac{1}{2}kt^2 + 0.01t^3$ From a correct expression for s $12 + 20k$ Finding distance travelled after 20 s (for reference $s_1 = 100$) Use of $v^2 = u^2 + 2as$ with $v = 25$ and $a = 1.3$ and their u All previous marks must have been awarded	If $c = 0$ stated then must give a reason