

Question Number	Scheme	Marks
8. (a)		B1 trapezium B1 triangle & overlap B1 figs (3)
(b)	$\frac{1}{2}(90+60) \cdot 20 = 1500$ $1500 = \frac{1}{2}a \cdot 90^2$ $a = \frac{10}{27} \text{ ms}^{-1} \text{ or decimal}$	M1 A1 M1 A1 ft A1 (5)
(c)	$\frac{10t}{27} = 20$ $t = 54 \text{ s}$ $t = 126 \text{ s}$	M1 A1 A1 A1 ft (4)
(d)	$\frac{10}{27} \times 90 \left(= \frac{100}{3} \right)$ $\frac{100}{3} \times 6 - \frac{1}{2} \cdot \frac{10}{27} \cdot 6^2 \left(= \frac{580}{3} \right)$ $d = \frac{580}{3} - (20 \times 6)$ $= \frac{220}{3} \text{ m or decimal}$	M1 DM1 A1 DM1 A1 (5) 17