1) 

(a) 1.05
(b) 3360
(c) 18.7

M1 attempting the area under the graph W1 $\frac{(140+180) \times 21}{2}$
May be done by triangles and rectangles
$1 \mathrm{ft} \quad$ (b) / 180 evaluated correctly
2)

| (a) 0.8 or $4 / 5$ cao | 2 | M1 speed/time |
| :--- | :--- | :--- |
| (b) 960 www | 3 | M1 $30 \times(12+36) / 2$ <br> M1 $10 \times(12+36) / 2$ |
| $\cdots$ | M1 $12 \times 40$ <br> M1 $1 / 2 \times 40 \times 24$ |  |

3) 

| $16 \frac{1}{4}$ or 16.3 | 5 | M1 finding the area under graph A1 130 <br> M1 $\frac{1}{2} \times 16 \times v$ <br> M1 equating and solving |
| :--- | :--- | :--- |

4) 

(a) $6,30,70$
(b) graph
(c) 82.5 or $\mathrm{ft} \pm 1$

1 ft
(d) 108 or $\mathrm{ft} \pm 1$

1 ft
5)

| 70 | 2 | M1 for $252 \times 1000 \div 60 \div 60$ oe |
| :--- | :--- | :--- |

6) 

| (a) $\frac{3}{4}$ or 0.75 | 1 |  |
| :--- | :--- | :--- |
| (b) 2.6 | 3 | M1 for finding the area under the graph or <br> M1 for their $39 \div 15$ |

7) 

| (a) $(0) 8() .01(\mathrm{am})$ | $\mathbf{1}$ | Not 8.01 pm |
| :--- | :--- | :--- |
| (b) 78.4 or 78.38 to 78.39 | $\mathbf{3}$ | M2 for $827 \div 10.55$ <br> or M1 for figs $827 \div$ their time |

8) 

| (a) 480 | $\mathbf{1}$ |  |
| :--- | :--- | :--- |
| (b) 9900 | $\mathbf{3}$ | M1 for attempt at area under graph <br> M1 for $0.5 \times 15 \times($ their $(\mathbf{a})+14 \times 60)$ oe |
| (c) 0.125 or $\frac{1}{8}$ | $\mathbf{2}$ | or $0.5 \times 15 \times(8+14)$ oe <br> M1 for numerical vertical/horizontal or numerical <br> use of $v=u+$ at but $t \leq 120$ or $t \leq 2$ |

9) 

(a) 159
(b) (i) 50

M1 evidence of numerical rise/run or use of
$(v-u) / t$

