| Question | Scheme | Marks | AOs |
|---|---|---|---|
| **1(a)** | 16 ($\mathrm{m\ s^{-1}}$) seen as the answer | B1 | 1.1b |
| | | **(1)** | |
| **1(b)** | $s=\frac{1}{2}\times 3.2\times 5^2$ **OR** $s=\frac{(0+16)}{2}\times 5$ **OR** $s=(16\times 5)-\frac{1}{2}\times 3.2\times 5^2$<br>**OR** $16^2=2\times 3.2\times s$ **OR** from a *v*-*t* graph, $s=\frac{1}{2}\times 5\times 16$ | M1 | 3.1b |
| | $s$ = 40 (m) | A1 | 1.1b |
| | | **(2)** | |
| | | | **(3 marks)** |

**Notes:**

| | | | | |
|---|---|---|---|---|
| **1a** | B1 | cao. Must be positive. Ignore any working. | | |
| **1b** | M1 | Complete method to find an equation in $s$ only, possibly using their '16'<br>Allow 'reversed motion': use of $s=vt-\frac{1}{2}at^2$ with $v$ = 0<br>i.e. $s=-\frac{1}{2}\times 3.2\times 5^2$ can score M1<br>and $s=-40$ so distance is 40 (m) can score the A1 | | |
| | A1 | cao. Must be positive. | | |
| | | **N.B.** correct answer only, in (b), can score both marks. | | |