| | | | | | | |
|---|---|---|---|---|---|---|
| **1** | (a) | | 60 | 1 | B1 | for 60 |
| | (b) | 3 × 6 (=18) | | 2 | M1 | for 3 × 6 (=18) |
| | | | 20 | | A1 | for 20 |
| | (c) | | +3 | 1 | B1 | or $\times\frac{8}{5}$ |
| | | | | | | ***Total 4 marks*** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **2** | (a) | | 13 | 1 | B1 | |
| | (b) | 160 × 2 (=320)or "160 × 2" – 5 or "160 × 2 – 5" ÷ 3 | 105 | 2 | M1 | One correct inverse operation used |
| | | | | | A1 | |
| | (c) | | $P=\frac{3n+5}{2}$ | 2 | B2 | oe (B1 for $\frac{3n+5}{2}$ oe or $P = 3n + 5 \div 2$ or for $P$ = a formula including $n$ with 2 operations correct eg $P = 3n + 5$ or for $n=\frac{2P-5}{3}$ or $P=\frac{2n-5}{3}$) |
| | | | | | | **Total 5 marks** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **3** | (b) | 108 – 3 (= 105) or $x \div 5$ where $x$ is found value from first stage $(108-3)\div 5$ oe | | 2 | M1 | Allow 108 – 3 ÷ 5 or – 3 ÷ 5 with the correct order indicated eg with arrows |
| | | | 21 | | A1 | cao<br>If no marks scored<br>SCB1 for 107.4 or 543 |

| | | | | | |
|---|---|---|---|---|---|
| **4** | (a) | | 38 | 1 | B1 |
| | (b) | | ×3 or +12 | 1 | B1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **5** | (a) | | 146 | 1 | B1 | |
| | (b) | 64 – 9 (= 55) **or** (64 – 9) ÷ 11 **or** $11x + 9 = 64$ | | 2 | M1 | for working backwards from the output of 64 **or** setting up an equation |
| | | *Correct answer scores full marks (unless from obvious incorrect working)* | 5 | | A1 | |
| | | | | | | **Total 3 marks** |