| | | | | |
|---|---|---|---|---|
| **7** | $3892 = \pi \times 8^2 \times h$ **or** $\pi \times 8^2 \left(= 64\pi = 201...\right)$ | | 3 | M1 allow use of 3.14… or $\frac{22}{7}$ for $\pi$ |
| | $\left(h =\right)\frac{3892}{\pi \times 8^2}$ oe eg 3892 ÷ 64 = 60.8… **and** 60.8… ÷ π | | | M1 allow use of 3.14… or $\frac{22}{7}$ for $\pi$ |
| | *Correct answer scores full marks (unless from obvious incorrect working)* | 19.4 | | A1 allow 19.3 – 19.4 |
| | | | | **Total 3 marks** |

| | | | | | |
|---|---|---|---|---|---|
| **8** | (a) | | $5.2 \times 10^8$ | 1 | B1 |
| | (b) | | 0.000 087 9 | 1 | B1 |
| | (c) | $35 \times 10^{-138}$ or $3.5 \times 10 \times 10^{-138}$<br>or $3.5 \times 10^n$ where $n \neq -137$ | | 2 | M1 |
| | | *Correct answer scores full marks (unless from obvious incorrect working)* | $3.5 \times 10^{-137}$ | | A1 |
| | | | | | **Total 4 marks** |