| | | | | | |
|---|---|---|---|---|---|
| **10** | eg $\pi \times 3^2 \times 7$ (= $63\pi$ or 197.9…) | | 3 | M1 | for method to find the volume of Solid **A** |
| | eg $\frac{2000}{[\text{vol A}]}$ **or** $\frac{3375}{450}(=7.5 \text{ oe})$ **or** $\frac{2000+3375}{[\text{vol A}]+450}$ | | | M1 | (indep) for method to find the density of Solid **A**, **B** or **C,** allow use of their volume for Solids **A** and **C** |
| | *Correct answer scores full marks (unless from obvious incorrect working)* | 8.3 | | A1 | accept 8.29 – 8.31 |
| | | | | | **Total 3 marks** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **11** | *SCD* = 128° **or** *BCS* = 32°<br>**or** *TSC* = 180 – 128 (= 52) | | 4 | M1 | angles need to be identified or may be seen marked on the diagram | M2 for (*BCD* =) 128 + 32 (= 160) **or (***DCV* =) 52 – 32 (= 20) (may be seen marked on the diagram). To award these marks 160 or 20 must be clearly used or identified as the interior or exterior angle. |
| | eg $(\text{int}\angle =) 128+32 (=160)$<br>**or** $(\text{ext}\angle =) 180-(128+32) (=20)$<br>**or** $(\text{ext}\angle =) "52"-32 (=20)$ | | | M1 | (dep on previous M1) for method to find the size of one interior or exterior angle, may be seen marked on the diagram. | |
| | eg $180(n-2)="160"n$ **or** 360 ÷ "20" | | | M1 | for setting up an equation for the sum of interior angles **or** 360 ÷ "20" | |
| | *Working required* | 18 | | A1 | dep on M2 | |
| | | | | | | **Total 4 marks** |