Question	Working	Answer	Mark	Notes
26*	**A** : **B** = 31 : 18.6 (= 5 : 3) oe **or** $\mathbf{A^3}$: $\mathbf{B^3}$ = 31^3 : 18.6^3 ($= 5^3 : 3^3$) oe **or** $\frac{31}{18.6}\left(=\frac{5}{3}\right)$ oe **or** $\frac{18.6}{31}\left(=\frac{3}{5}\right)$ oe **or** $\left(\frac{18.6}{31}\right)^3$ oe **or** $\frac{27}{125}$ oe **or** $\left(\frac{31}{18.6}\right)^3$ oe **or** $\frac{125}{27}$ oe		4	M1 for correct linear SF or volume SF either as a fraction or ratio. Allow $\frac{5}{3}=1.6(6....)$ truncated or rounded
	$V_A-\left(\frac{3}{5}\right)^3 V_A(=735)$ oe **or** $V_A-\frac{27}{125}V_A(=735)$ oe **or** $\frac{98}{125}V_A(=735)$ oe **or** $\frac{V_A}{V_A-735}=\frac{31^3}{18.6^3}$ oe **or** $\left(\frac{5}{3}\right)^3 V_B-V_B(=735)$ oe **or** $\frac{125}{27}V_B-V_B(=735)$ oe **or** $\frac{98}{27}V_B(=735)$ oe **or** $\frac{V_B+735}{V_B}=\frac{31^3}{18.6^3}$ oe **or** $1-\left(\frac{3}{5}\right)^3\left(=\frac{98}{125}=0.784\right)$ oe **or** $\left(\frac{5}{3}\right)^3-1\left(=\frac{98}{27}=3.62(962...)\right)$ oe **or** $5^3 - 3^3$ (= 125 – 27 = 98)			M1 **Note: 735 is given in the equation** Allow any letter for V_A or for V_B $V_A-\left(\frac{3}{5}\right)^3 V_A(=735)$ can be written as $V_A-\frac{V_A}{\left(\frac{5}{3}\right)^3}(=735)$ or $\left(\frac{5}{3}\right)^3 V_B-V_B(=735)$ can be written as $\frac{V_B}{\left(\frac{3}{5}\right)^3}-V_B(=735)$
	$(V_A=)735\times\frac{125}{98}$ oe **or** $(V_A=)735\div\frac{98}{125}$ oe **or** $(V_A=)\frac{31^3\times735}{31^3-18.6^3}$ oe or $(V_B=)735\times\frac{27}{98}(=202.5)$ oe **or** $(V_B=)735\div\frac{98}{27}(=202.5)$ **or** $(V_B=)\frac{18.6^3\times735}{31^3-18.6^3}(=202.5)$ oe **or** 735 ÷ 98 × 5^3 oe **or** 7.5 × 125 oe **or** 735 ÷ 98 × 3^3 (= 202.5) oe **or** 7.5 × 27 (= 202.5) oe			M1 for a correct method to find V_A or V_B
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	937.5		A1 oe allow 938 from correct working
				Total 4 marks

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