Question	Working	Answer	Mark	Notes
19	eg $\sqrt{\frac{25}{64}}\left(=\frac{5}{8}=0.625\right)$ **or** $\sqrt{\frac{64}{25}}\left(=\frac{8}{5}=1.6\right)$ **or** $\sqrt{25}:\sqrt{64}\ (5:8)$ **or** $\sqrt{64}:\sqrt{25}\ (8:5)$ **or** $\frac{(\sqrt{25})^3}{(\sqrt{64})^3}=\left(\frac{125}{512}=0.244140625\right)$ oe **or** $\frac{512}{125}=4.096$ $\frac{25^3}{64^3}=\frac{(\text{vol of }\mathbf{B})^2}{(\text{vol of }\mathbf{B}+541.8)^2}$ **or** $\frac{25}{64}=\frac{(\text{vol of }\mathbf{B})^{\frac{2}{3}}}{(\text{vol of }\mathbf{B}+541.8)^{\frac{2}{3}}}$ oe		4	M1 for a correct scale factor for length – may be given as a fraction or decimal or ratio **or** a correct scale factor for volume given as a fraction or decimal or ratio **or** a correct equation for the volume of vase **B**
	eg $\mathbf{B}\left(\frac{512}{125}-1\right)=541.8$ **or** $3.096\mathbf{B}=541.8$ oe **or** eg $\mathbf{A}\left(1-\frac{125}{512}\right)=541.8$ **or** $\frac{387}{512}\mathbf{A}=541.8$ $(8^3)k-(5^3)k(=387k)=541.8$ **or** eg $(k=)\frac{541.8}{387}\left(=\frac{7}{5}\right)$			M1 For a correct equation for the volume of **B** or a correct equation for the volume of **A**
	eg (**B**) $541.8\div"\frac{387}{125}"$ **or** $541.8\div$"3.096" **or** eg $125\times"\frac{7}{5}"$ or (**A**) $541.8\div"\frac{387}{512}"(=716.8)$ oe			M1 For a completely correct method to find the volume of vase **B** or vase **A**
	Correct answer scores full marks (unless from obvious incorrect working)	175		A1 cao
				Total 4 marks