23	$\sqrt{\frac{7776}{486}}$ or $\sqrt{16}$ or 4 oe or $\sqrt{\frac{486}{7776}}$ or $\sqrt{\frac{1}{16}}$ or $\frac{1}{4}$ oe	<u>Alternative for M2</u> a correct equation linking area and volume $\left(\frac{486}{7776}\right)^3 = \left(\frac{2^{x+4}}{8^x}\right)^2$ oe or $\left(\frac{7776}{486}\right)^3 = \left(\frac{8^x}{2^{x+4}}\right)^2$ oe		5	M1 for a correct linear scale factor
	$8^x = "\left(\sqrt{\frac{7776}{486}}\right)^3" \times 2^{x+4}$ oe eg $8^x = 4^3 \times 2^{x+4}$ oe or $\frac{1}{8^x} = "\left(\sqrt{\frac{486}{7776}}\right)^3" \times \frac{1}{2^{x+4}}$ oe				M1 for setting up a correct equation for volume
	eg $2^{3x} = 2^6 \times 2^{x+4}$ or $(4^{\frac{3}{2}})^x = 4^3 \times 4^{\frac{1}{2}(x+4)}$ $\frac{1}{2^{3x}} = \frac{1}{2^6} \times \frac{1}{2^{x+4}}$ oe or $3x = 6 + x + 4$ oe or $x = 5$	$\frac{1}{2^{12}} = \frac{2^{2x+8}}{2^{6x}}$ oe or $2^{12} = \frac{2^{6x}}{2^{2x+8}}$ oe or $12 = 6x - 2x - 8$ oe or $x = 5$			M1 for a correct equation using just powers of 2 or powers of 4 (or 8 or 16) or a correct linear equation in x or the correct value for x
	$3^5 \div 4$ oe or $3^5 \times \frac{1}{4}$ oe				M1 a correct calculation for the height of solid **B**
			60.75		A1 oe accept 60.8 or 61 (from correct working)
					Total 5 marks