1	$0.5 \times \pi \times 6^2$ ($= 56.54...$) **or** 12×6 ($= 72$) **or** $\pi \times 6^2$ oe		3	M1	
	"72" – "56.54…"			M1	dep M1 for a complete method
		15.5		A1	15.4 to 15.5
					Total 3 marks

2		$8^2 + 15^2$ ($= 289$)		5	M1	
		$\sqrt{8^2 + 15^2}$ ($=17$)			M1	
		$\pi \times "8.5"^2$ ($226.98...$) **or** $0.5 \times 15 \times 8$ ($= 60$)			M1	
		$\pi \times "8.5"^2 - 0.5 \times 15 \times 8$ ("226.98" – "60")			M1	
			167		A1	Accept answers which round to 167
						Total 5 marks

3	3×2.5 ($= 7.5$) oe or $2 \times 3 \times 2.5$ ($= 15$) oe or 12×3 ($= 36$) oe or $2 \times 12 \times 3$ ($= 72$) oe or 12×2.5 ($= 30$)		6	M1 for area of rectangle
	$(2 \times 3 \times 2.5) + (2 \times 12 \times 3) + (12 \times 2.5)$ ($= 117$) or $(2 \times 7.5) + (2 \times 36) + (12 \times 2.5)$ ($= 117$) or $15 + 72 + 30$ ($= 117$)			M1 for a complete method to find the surface area
	$1 + 0.1$ ($= 1.1$) **or** $100(\%) + 10(\%)$ ($= 110(\%)$) **or** $\dfrac{26.95}{110}$ ($= 0.245$) oe			M1
	$26.95 \div "1.1"$ ($= 24.5(0)$) **or** $26.95 \div "110" \times 100$ ($= 24.5(0)$) **or** $26.95 \times 100 \div "110"$ ($= 24.5(0)$) oe **or** "0.245" $\times 100$ ($= 24.5(0)$) oe			M1 dep on previous M1
	"117" $\div 15$ ($= 7.8$ or 8) **and** "8" $\times$ "24.50" ($= 196$) or "117" $\div 15$ ($= 7.8$ or 8) **and** $200 \div "24.5"$ ($= 8.1...$) **or** "117" $\div 15$ ($= 7.8$ or 8) **and** $200 \div "8"$ ($= 25$)			M1 for working with a whole number of tins (rounded up) to reach figures where a decision can be made
		Correct figures to show that Jonty is correct		A1 e.g. 196 7.8 or 8 **and** 8.1... 24.5 **and** 25
				Total 6 marks

4	eg 6×14 ($= 84$) **or** 13.5×14 ($= 189$) **or** $7.5 \times x$ ($= 7.5x$) **or** $924 \div 8$ ($= 115.5$) **or** any correct calculation that leads to an area linked to the cross section of the shape	eg $14 \times 6 \times 8$ ($= 672$) **or** $7.5 \times x \times 8$ ($= 60x$) **or** $13.5 \times 14 \times 8$ ($= 1512$) any correct calculation that leads to a volume linked to the 3D shape		4	M1	a correct calculation linked to the area of the cross section of the shape – can be numerical or algebraic and maybe part of another calculation. **or** a correct calculation linked to the volume of the shape – can be numerical or algebraic and may be part of another calculation
	$\dfrac{924}{8} - 84$ ($= 115.5 - 84 = 31.5$) oe or $6 \times 14 + 7.5x = "115.5"$ oe	$\dfrac{924 - "672"}{8}$ $\left(= \dfrac{252}{8} = 31.5 \right)$ or $\dfrac{924 - "672"}{7.5}$ $\left(= \dfrac{252}{7.5} = 33.6 \right)$ or $8(6 \times 14 + 7.5x) = 924$ oe			M1	a calculation that leads to a value one step away from the value of x eg a calculation leading to 31.5 (one step remains which is to divide by 7.5) or a correct equation in x
	eg $\left(\dfrac{924}{8} - "84" \right) \div 7.5$ ($= 31.5 \div 7.5$) **or** $\dfrac{"115.5" - "84"}{7.5}$ oe **or** "33.6" $\div 8$				M1	a fully correct calculation that leads to the value for x
	Correct answer scores full marks (unless from obvious incorrect working)		4.2		A1oe	