1	E.g. 12×9 (=108) **or** $(9 - 6) \times x$ (= 3x)		4	M1 for one correct relevant area
	E.g. $129 - '108'$ (= 21) **or** $'108' + '3x' = 129$			M1 (dep on M1) for 129 used correctly with another area **or** for a correct equation (ft) with bracket(s) expanded
	E.g. $'21' \div (9 - 6)$ **or** $x = \dfrac{129 - '108'}{9 - 6}$			M1 for a complete method
		7		A1 Accept 7 cm
				Total 4 marks

2	$8 \times x$ (= 8x) **or** $14 \times x$ (= 14x) **or** $(14 - 8) \times x$ (= 6x) **or** $\frac{1}{2} \times (14 - 8) \times (13 - x)$ (= 39 - 3x) **or** $\dfrac{13 + x}{2} \times (14 - 8)(= 39 + 3x)$ **or** $\frac{1}{2} \times 13 \times (14 - 8)$ (=39) **or** $\dfrac{8 + 14}{2} \times x$ (= 11x) **or** 14×13 (=182) **or** $8 \times (13 - x)$ (= 104 - 8x) **or** $\left(\dfrac{8 + 14}{2} \times (13 - x)\right)$ (= 143 - 11x) oe		4	M1 one correct area linked to the shape
	$14x + 6 \times \frac{1}{2} \times (13 - x)$ oe eg $8x + \dfrac{x + 13}{2} \times 6$ **or** $\dfrac{8 + 14}{2} \times x + \dfrac{13 \times (14 - 8)}{2}$ **or** "182" $- \left(\dfrac{8 + 14}{2} \times (13 - x)\right)$ **or** $11x + 39$ oe			M1 ft from correct working expression for total area of shape – with no parts omitted or duplicated Adding up parts of given shape **or** large rectangle subtracting trapezium (or subtracting (rectangle + triangle))
	eg $11x + 39 = 91.8$ **or** $14x + 39 - 3x = 91.8$ **or** $182 - 143 + 11x = 91.8$ **or** $16x + 6x + 78 = 183.6$ oe			M1 fully correct equation with no fractions (allow 91.8 or multiples of 91.8 but no other decimals) **and** no brackets
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	4.8		A1 or $4\dfrac{4}{5}$ oe **or** $\dfrac{24}{5}$ oe
				Total 4 marks

3	$(AB^2 =)\ 7.5^2 - 6^2$ (= 20.25) **or** eg $(BAC =)\sin^{-1}\left(\dfrac{6}{7.5}\right)(= 53.1...)$ **or** $\cos(BCA) = \dfrac{6}{7.5}(= 0.8)$		6	M1 for a correct first step to find *AB* or a complete method to find angle *BAC* or a correct first step to find angle *BCA*
	$(AB =)\ \sqrt{7.5^2 - 6^2}$ (= 4.5) **or** $(AB =)\dfrac{6}{\tan"53.1"}(= 4.5...)$ **or** $(AB =)7.5\cos"53.1"(= 4.5...)$ **or** $(BCA =)\cos^{-1}\left(\dfrac{6}{7.5}\right)(= 36.8...)$			M1 for a complete method to find *AB* or angle *BCA*
	$(\text{Area } ABC =)\ \dfrac{1}{2} \times 6 \times "4.5"$ (= 13.5) **or** $(\text{Area } ABC =)\dfrac{1}{2} \times 6 \times 7.5 \times \sin("36.8")(=13.47... \text{ or } 13.5)$			M1 ft [their labelled *AB*] or [their labelled *BCA*] eg for $\frac{1}{2} \times 6 \times$[their labelled *AB*] **or** $\dfrac{1}{2} \times 6 \times 7.5 \times \sin$[their labelled *BCA*]
	$(\text{Area } DAC =)\ 31.5 - "13.5"$ (= 18) **or** $"13.5" + 0.5 \times 7.5 \times AD = 31.5$ oe			M1 ft (dep on previous M1) allow 31.5 – [their area]
	$(AD =)\ ("18" \div 7.5) \div 0.5$ oe			M1 for a complete method to find *AD*, dependent on correct working
		4.8		A1 accept 4.78 – 4.81
				Total 6 marks

4	$\sqrt{36}(=6)$ **or** 6 **or** 6×6		4	M1	for method to find the length of the square – may be seen in later working
	eg $\pi \times \left(\dfrac{[\text{their } 6]}{2}\right)^2 \div 2 (=14.1... \text{ or } 4.5\pi \text{ or } \dfrac{9}{2}\pi)$ **or** $\pi \times \left(\dfrac{[\text{their } 6]}{2}\right)^2 (=28.2... \text{ or } 9\pi)$			M1	for method to find the area of one semicircle **or** circle or the incorrect number of semicircles or circles provided correct area of circle formula is seen for [their 6] allow any value if there is a clear implication this is their side length of square.
	eg $4 \times$ "14.1" $(= 56.5... \text{ or } 18\pi)$ **or** $2 \times$ "28.2" $(= 56.5... \text{ or } 18\pi)$			M1	ft dep on previous M1 for a complete method to find the total area of the semicircles [if the pupil multiplies again and uses the incorrect number of circles or semicircles this mark is not awarded]
		92.5		A1	accept 92.4 – 92.6 (not in terms of π)
					Total 4 marks

5	$28 \times 12 (=336)$ or $5 \times 12 (= 60)$ or $18 \times 12 (= 216)$ or $28 \times 20 (=560)$ or $\dfrac{1}{2}(CD + "18")"8"$ oe eg $72 + 4CD$ [numbers in " " come from correct working] **Check diagram for areas**		4	M1	For a correct method to find the area of a rectangle (may be seen as part calculation) or a correct expression for the area of the trapezium with numbers substituted. Allow for other correct methods to find area linked to this shape.
	"336" + 0.5("18"+ CD)"8" = 434 oe eg 4("18" + CD) = 98 or eg 0.5("18"+ CD)"8" = "98" oe eg $\dfrac{1}{2}(18+CD)=12.25$ or "560"$-2(0.5"5+x""8")=434$ oe (where x is horizontal from D to perp with AF) [numbers in " " come from correct working]			M1	correct use of their values from correct working for an equation involving CD (CD could be labelled with any letter)
	eg $(CD) = \dfrac{196-144}{8}\left(=\dfrac{52}{8}\right)$ or $(CD) = \dfrac{98-72}{4}\left(=\dfrac{26}{4}\right)$ or $(CD) = \dfrac{434+152-560}{4}$ or $(CD) = 2 \times 12.25 - 18$ or $98 \times 2 (=196)$, "196"$\div 8 (= 24.5)$, "24.5"-18			M1	a correct process to solve a correct equation **or** a correct process to find CD using **correct values**
		6.5		A1	oe
					Total 4 marks