

Question	Answer	Mark	Comments
1	$5^2 \times \pi (\div 6)$ or $25\pi (\div 6)$	M1	oe allow 3.14 or better for π throughout
	$\frac{1}{2} \times 5 \times 5 \times \sin 60$ or $\frac{1}{2} \times 5 \times 2.5 \tan 60$ or $\frac{25}{2} \times \frac{\sqrt{3}}{2}$	M1	oe correct method to work out the area of the triangle or the area of the hexagon implied by $75 \sin 60$ or $37.5 \tan 60$ or $\frac{75\sqrt{3}}{2}$ oe
	$\frac{25\pi}{6} - \frac{25\sqrt{3}}{4}$	A1	oe eg $\frac{1}{6} \left(25\pi - \frac{75\sqrt{3}}{2} \right)$ implied by correct answer
	$\frac{50\pi - 75\sqrt{3}}{12}$	A1	oe in correct form eg $\frac{50\pi - 15\sqrt{75}}{12}$
	Additional Guidance		
	Using Pythagoras to work out the perpendicular height of the triangle may lead to an area of $\frac{5\sqrt{18.75}}{2}$ for the triangle or $15\sqrt{18.75}$ for the area of the hexagon		2nd M1

Q	Answer	Mark	Comments
2	$(x =) 4 \times 2$ or $(x =) 8$ or area of top right rectangle is 12×2 or $12 \div 4 \times \text{their } 8$ or 24 or area of bottom left rectangle is $56 \div 2$ or $4 \times 56 \div \text{their } 8$ or 28	M1	may be on diagram implied by length of bottom left or bottom right vertical section is 7
	Area of top right rectangle is 12×2 or $12 \div 4 \times \text{their } 8$ or 24 and area of bottom left rectangle is $56 \div 2$ or $4 \times 56 \div \text{their } 8$ or 28 or Total area is $(4 + \text{their } 8) \times (12 \div 4 + 56 \div \text{their } 8)$ or 12×10 or 120	M1dep	may be on diagram
	(Total shaded area is) 52	A1	implied by $52 : 68$
	$13 : 17$ or $1 : \frac{17}{13}$ or $\frac{13}{17} : 1$	B1ft	ft simplification of their ratio or conversion into the form $1 : n$ or $n : 1$ with M2A0 or M1M0A0 scored
	Additional Guidance		
	If their ratio cannot be simplified by dividing by a common factor they can only score B1ft by converting into the form $1 : n$ or $n : 1$		
	$\frac{52}{120} : \frac{68}{120}$		M1M1A1B0
	$68 : 52$ simplified to $17 : 13$		M1M1A0B1ft
	$13 \text{ cm}^2 : 17 \text{ cm}^2$		M1M1A1B0
	For B1, accept values as decimals rounded or truncated to 2 dp or better eg $1 : 1.31$ or $0.76 : 1$		B1