

Q	Answer	Mark	Comments
1	Alternative method 1		
	16^2 or 256 and 30^2 or 900	M1	oe implied by 1156
	$\sqrt{16^2 + 30^2}$ or $\sqrt{256 + 900}$ or $\sqrt{1156}$ or 34	M1dep	oe eg $\sqrt{16^2 + 30^2 - 2 \times 16 \times 30 \times \cos 90}$
	$52 \times \text{their } 34$ or 1768	M1dep	oe if M1M0 their 34 can be any value other than 16, 30 or 52 dep on 1st M
	$0.5 \times 30 \times 16$ or 240	M1	oe eg $0.5 \times 30 \times 16 \times \sin 90$
	2008	A1	SC3 2248
	Alternative method 2		
	$\tan^{-1} \frac{16}{30}$ or [28, 28.1] or $\tan^{-1} \frac{30}{16}$ or [61.9, 62]	M1	oe may be on diagram
	$\frac{30}{\cos(\text{their } [28, 28.1])}$ or $\frac{16}{\cos(\text{their } [61.9, 62])}$ or 34	M1dep	oe eg $\frac{16}{\sin(\text{their } [28, 28.1])}$ or $30 \cos(\text{their } [28, 28.1]) + 16 \cos(\text{their } [61.9, 62])$
	$52 \times \text{their } 34$ or 1768	M1dep	oe if M1M0 their 34 can be any value other than 16, 30 or 52 dep on 1st M
	$0.5 \times 30 \times 16$ or 240	M1	oe eg $0.5 \times 30 \times 16 \times \sin 90$
	2008	A1	SC3 2248

1 cont	Additional Guidance	
	Up to M4 may be awarded for correct work with no, or incorrect answer, even if this is seen amongst multiple attempts	
	The 4th mark in Alts 1 and 2 is not dependent on any other marks	
	34 or 1768 or 240 may be on the diagram	
	SC3 is for using 30×16 for the area of the triangle	
	Ignore units	

Q	Answer	Mark	Comments
2	Alternative method 1		
	4×2 or 8	M1	oe may be seen in an equation eg $3 \times x + 4 \times 2 = 44$
	$\frac{44 - 4 \times 2}{3}$ or $\frac{36}{3}$ or 12	M1dep	oe
	38	A1	
	Alternative method 2		
	7×2 or 14	M1	oe may be seen in an equation eg $7 \times 2 + 3 \times y = 44$
	$\frac{44 - 7 \times 2}{3}$ or $\frac{30}{3}$ or 10	M1dep	oe
	38	A1	
	Additional Guidance		
	Up to M2 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts		
	Working for up to M2 may be seen on the diagram		
	Beware of 38 from incorrect working $7 + 3 + 7 + 3 = 20$, $7 + 2 + 7 + 2 = 18$, $20 + 18 = 38$		M0M0A0

Q	Answer	Mark	Comments
3	$\frac{1}{2} \times (14 + 20) \times 11$ or 187	M1	oe any correct method to find the area of the trapezium
	$\frac{1}{2} \times 10 \times 7$ or 35	M1	oe eg $\frac{1}{2} \times 10 \times 7 \times \sin 90$
	222	A1	
	Additional Guidance		
	Up to M2 may be awarded for correct work, with no or incorrect answer, even if this is seen amongst multiple attempts		
	Ignore Pythagoras' theorem, trigonometry or perimeter calculations		
	$14 \times 11 + \frac{1}{2} \times 6 \times 11$	M1	
	Missing brackets must be recovered eg1 $\frac{1}{2} \times 20 + 14 \times 11$ and 187 eg2 $\frac{1}{2} \times 20 + 14 \times 11$	M1 M0	
	$20 \times 11 = 220$	M0M0A0	