Topic Test 2 Mark Scheme

Pythagoras' Theorem and basic trigonometry - Higher

Q	Answer	Mark	Comments
1	$a^2 = b^2 + c^2$	B1	
2	$\sin x = \frac{c}{a}$	B1	
3	$\tan y = \frac{b}{c}$	B1	
4	$\frac{x}{10} = \cos 35°$	M1	
	$x = 8.19\ldots.$	A1	
	$\sin y = \frac{2 \times \text{their } x}{19}$	M1	
	[59.5, 60]	A1ft	oe
5	$\frac{\sqrt{3}}{2} \times \frac{1}{\sqrt{2}}$	M1	oe
	$\frac{\sqrt{3}}{\sqrt{8}}$	M1	
	$a = 3$ and $b = 8$	A1	

Q	Answer	Mark	Comments
6	$17^2 - 8^2$ or 225	M1	
	$\sqrt{17^2 - 8^2}$ or 15	M1dep	
	$\frac{1}{2} \times 8 \times$ their 15	M1dep	
	60	A1	
7	$50 \times \sin 60$ or 43.3(…)	M1	oe
	$50 \times \cos 60$ or 25	M1	
	20 + 50 + their 43.3(…) + 20 + their 25 or 158.3(…)	M1dep	
	their 158.3(…) × 12.98 or 2054.734	M1	
	2054.73 or 2055	A1	
8	$\sin 45 = \frac{\sqrt{2}}{2}$	B1	