	Trigonometry Mark Scheme	
1	$Sin(30) = \frac{cb}{12}$	[1] Correct trigonometry relation
	$cb = 12\sin(30)$	[1] Rearranging
	$cb = 6$	[1] Final answer
2(a)	$\cos(60) = \frac{A}{H}$	[1] Correct trigonometry relation
	$DF = \frac{DE}{\cos(60)} = \frac{5}{\cos(60)}$	[1] Rearranging
	$DF = 10\ cm$	[1] Final answer
2(b)	$\sin(60) = \frac{EF}{10}$	[1] Correct trigonometry relation
	$EF = 10\sin(60)$	[1] Rearranging
	$EF = 5\sqrt{3}$	[1] Final answer
3(a)	$\tan(POQ) = \frac{6.4}{9.5}$	[1] Correct trigonometry relation
	$POQ = \tan\left(\frac{6.4}{9.5}\right)^{-1}$	[1] Rearranging
	$POQ = 33.967 = 34.00°$ (2dp)	[1] Final answer
3(b)	$180 - (90 + 34) = 56°$	[1] Angles in a triangle add up to 180
4(a)	$\tan(CAB) = \frac{4}{7}$	[1] Correct trigonometry relation
	$\tan\left(\frac{4}{7}\right)^{-1} = CAB$	[1] Rearranging
	$29.74°$	[1] Final answer
4(b)	$180 - (90 + 29.74) = 60.26°$	[1] Angles in a triangle add up to 180
4(c)	$\sin(60.26°) = \frac{AB}{AC}$	[1] Correct trigonometry relation
	$AC = \frac{7}{\sin(60.26°)}$	[1] Rearranging
	$AC = 8.06\ cm$	[1] Final answer

5(a)	$\cos(42) = \frac{5}{AC}$	[1] Correct trigonometry relation
	$AC = \frac{5}{\cos(42°)}$	[1] Rearranging
	$AC = 6.73\ cm$	[1] Final answer
5(b)	$\sin(42) = \frac{DC}{6.73}$	[1] Correct trigonometry relation
	$6.73 \times \sin(42) = DC$	[1] Rearranging
	$DC = 4.50\ cm$	[1] Final answer – Allow the use of Pythagoras if final answer is correct
6(a)	$\tan(49.5) = \frac{MO}{6.5}$	[1] Correct trigonometry relation
	$MO = \tan(49.5) \times 6.5$ $MO = 7.61\ m$	[1] Rearranging
	$NM - MO = NO$ $12 - 7.61 = 4.39\ m$	[1] Final answer
6(b)	$\tan(NLM) = \frac{12}{6.5}$	[1] Correct trigonometry relation
	$NLM = \tan^{-1}\left(\frac{12}{6.5}\right)$ $NLM = 61.56°$	[1] Rearranging
	$61.56° - 49.5° = 12.057°$ $12.057° = 12.06\ (2dp)$	[1] Final answer

END