Question	Answer	Marks	Partial Marks
8(a)	$3(\text{cosec}^2 x - 1) - 14\,\text{cosec}\, x - 2 [= 0]$	**M1**	
	$3\text{cosec}^2 x - 14\text{cosec}\, x - 5 = 0$	**A1**	
	$(\text{cosec} x - 5)(3\text{cosec} x + 1)$	**M1**	
	$\sin x = \frac{1}{5}$ nfww	**A1**	
	11.5 and 168.5 nfww	**A1**	
8(b)	Correct use of $\sin^2 y + \cos^2 y = 1$	**B1**	
	Factorises using the difference of 2 squares	**B1**	
	Uses $\frac{1}{\cot y} = \tan y$ or $\cot y = \frac{\cos y}{\sin y}$ correctly	**B1**	
	Full and correct completion to given answer: $\tan y - 2\cos y \sin y$	**B1**	
9(a)	$\frac{3^{10x}}{3^{3x-6}} [= 243]$ oe or $\log 9^{5x} - \log 27^{x-2} = \log 243$ oe	**B1**	
	$3^{7x+6} = 3^5$ soi oe or $5x(\log 9) - (x-2)\log 27 = \log 243$	**M1**	
	$x = -\frac{1}{7}$	**A1**	