

Question	Answer	Marks	Guidance
(a)	Attempt to express left hand side of the equation in terms of $\sin \theta$ and $\cos \theta$	M1	with at least two of the terms correct and no missing θ s Condone use of x instead of θ
	Obtain $7\sin^2 \theta + 4\cos^2 \theta - 13\sin \theta [= 0]$	A1	SOI, OE
	Obtain $3\sin^2 \theta - 13\sin \theta + 4 = 0$	A1	Allow if missing θ s are recovered SC Allow full marks for $3\sin \theta - 13 + \frac{4}{\sin \theta} = 0$ Must be in terms of θ for final A mark
		3	

Question	Answer	Marks	Guidance
(b)	Attempt solution of 3-term quadratic equation for $\sin \theta$	M1	
	Obtain $\sin \theta = \frac{1}{3}$ and hence 19.5	A1	or greater accuracy
	Obtain second value 160.5	A1	or greater accuracy; and no other values within the given range FT on $180^\circ - \textit{their } 19.5^\circ$
		3	

