

Q	Marking Instructions	AO	Marks	Typical Solution
7	Divides or multiplies by $\cos \theta$	AO3.1a	M1	$\frac{\sin \theta \tan \theta}{\cos \theta} + 2 \frac{\sin \theta}{\cos \theta} = 3$
	Obtains correct quadratic	AO1.1b	A1	$\tan^2 \theta + 2 \tan \theta - 3 = 0$
	Applies a correct method to solve 'their' quadratic PI	AO1.1a	M1	$(\tan \theta + 3)(\tan \theta - 1) = 0$ $\tan \theta = 1 \text{ or } -3$
	Finds two correct values of $\tan \theta$ from 'their' quadratic	AO1.1b	A1F	$\theta = 45^\circ \text{ or } 108^\circ$
	Obtains two correct answers CAO	AO1.1b	A1	ALT $\sin \theta \tan \theta \cos \theta + 2 \sin \theta \cos \theta = 3 \cos^2 \theta$ $\sin^2 \theta + 2 \sin \theta \cos \theta - 3 \cos^2 \theta = 0$ $(\sin \theta + 3 \cos \theta)(\sin \theta - \cos \theta) = 0$ $\tan \theta = 1 \text{ or } -3$ $\theta = 45^\circ \text{ or } 108^\circ$
Total			5	