

Question	Answer	Marks	Guidance
	Use correct trigonometric formulae to form an equation in $\tan x$	*M1	e.g. $\frac{1 - \tan^2 x}{\tan x} + \frac{3}{\tan x} = 5$
	Obtain a correct linear equation in any form	A1	$1 - \tan^2 x + 3 = 5 \tan x$
	Reduce equation to a 3-term quadratic	A1	$\tan^2 x + 5 \tan x - 4 = 0$, or 3-term equivalent
	Solve a 3-term quadratic in $\tan x$ and obtain a value of x	DM1	
	Obtain answer, e.g. $x = 35.1^\circ$	A1	
	Obtain second answer, e.g. $x = 99.9^\circ$, and no other in $(0^\circ, 180^\circ)$	A1	Ignore answers outside $(0^\circ, 180^\circ)$. Treat answers in radians $(0.612, 1.74)$ as a misread.
	Alternative method for question		
	Use correct formulae for $\sin 2x$ and $\cos 2x$ to form an equation in $\sin x$ and $\cos x$	*M1	
	Obtain $4 \frac{\cos x}{\sin x} - \frac{\sin x}{\cos x} = 5$	A1	
	Reduce equation to a 3-term quadratic	A1	$\tan^2 x + 5 \tan x - 4 = 0$, or 3-term equivalent
	Solve a 3-term quadratic in $\tan x$ and obtain a value of x	DM1	
	Obtain answer, e.g. $x = 35.1^\circ$	A1	
	Obtain second answer, e.g. $x = 99.9^\circ$, and no other in $(0^\circ, 180^\circ)$	A1	Ignore answers outside $(0^\circ, 180^\circ)$. Treat answers in radians $(0.612, 1.74)$ as a misread.
		6	