

Question	Scheme	Marks	AOs
5	$4\cos x \sin y + 2\sin x \sin y = 3\sin x \cos y - 5\cos x \cos y$		
	$\frac{\sin x}{\cos x} \rightarrow \tan x$ or $\frac{\sin y}{\cos y} \rightarrow \tan y$	M1	1.1b
	$4\tan y + 2\tan x \tan y = 3\tan x - 5$ leading to $3\tan x - 2\tan x \tan y = 4\tan y + 5$	dM1	3.1a
	$\tan x = \frac{4\tan y + 5}{3 - 2\tan y}$	A1	1.1b
		(3)	

(3 marks)

Notes:

M1: Divides by $\cos x$ or $\cos y$ and uses $\frac{\sin x}{\cos x} = \tan x$ or $\frac{\sin y}{\cos y} = \tan y$ May be implied.

dM1: Reaches an equation in $\tan x$ and $\tan y$ only and isolates terms in $\tan x$.

A1: Achieves $\tan x = \frac{4\tan y + 5}{3 - 2\tan y}$ o.e. e.g., $\tan x = \frac{-4\tan y - 5}{2\tan y - 3}$ or $\tan x = -2 + \frac{11}{3 - 2\tan y}$