

Question		Answer	Marks	AO	Guidance
4	(a)	<p>DR</p> $x = \tan^{-1}\left(\frac{3}{2}\right)$ <p>$x = 56.3^\circ$ (3 sf) $x = 236^\circ$ (3 sf) with no extras</p>	<p>M1</p> <p>A1</p> <p>A1</p> <p>[3]</p>	<p>2.1</p> <p>1.1</p> <p>1.1</p>	<p>Attempt inverse tan of $\frac{3}{2}$</p> <p>may be implied by result and eg $\tan x = \frac{3}{2}$</p> <p>Allow omission of degrees sign throughout SC: If no working shown, B2 both correct, no extras B1 one correct, no extras or both correct with extras.</p>
4	(b)	<p>DR $5\sin x - 1 = 2(1 - \sin^2 x)$ $2\sin^2 x + 5\sin x - 3 = 0$</p> <p>$(2\sin x - 1)(\sin x + 3) (= 0)$ or $\sin x = \frac{-5 \pm \sqrt{25+24}}{4}$</p> <p>$\sin x = 0.5$ (or -3) or $u = 0.5$ (or -3)</p> <p>$\sin x = -3$ is not possible, or no solution oe</p> <p>$x = 30^\circ$ or 150°</p>	<p>M1</p> <p>M1</p> <p>A1f</p> <p>B1</p> <p>A1</p> <p>[5]</p>	<p>3.1a</p> <p>2.1</p> <p>1.1</p> <p>2.3</p> <p>1.1</p>	<p>Use of $\sin^2 + \cos^2 = 1$. May be implied</p> <p>or $(2u - 1)(u + 3) (= 0)$ or $u = \frac{-5 \pm \sqrt{25+24}}{4}$</p> <p>Correct method seen. ft their equation</p> <p>ft their equation. Allow without $\sin x = -3$ Dep 1st M1, not 2nd M1</p> <p>Appropriate comment needed, eg “N/A”, not just crossing out</p> <p>cao. Both, with no extras. Dep 1st M1, not 2nd M1</p>