

Q	Marking instructions	AO	Marks	Typical solution
10(a)(i)	States or uses $\sin 30 = 0.5$ PI by sight of ± 150 or ± 30 or -330 Maybe seen on diagram	1.1a	M1	$-180 - 30 = -210$
	Obtains -210	1.1b	A1	
Subtotal			2	

Q	Marking instructions	AO	Marks	Typical solution
10(a)(ii)	Obtains 0.5	1.1b	B1	0.5
Subtotal			1	

Q	Marking instructions	AO	Marks	Typical solution
10(b)(i)	Uses a correct approach to find $\sin(b - 180)$. Might see $\sin(205.37... \pm 180)$ PI by correct answer or $\sin(\pm 180 - 25.376...)$ PI by correct answer or Correct use of compound angle formula PI by correct answer	3.1a	M1	$\sin(b - 180) = -\sin b$ $= \frac{3}{7}$
	Deduces $\sin(b - 180) = \frac{3}{7}$ CAO	2.2a	R1	
Subtotal			2	

Q	Marking instructions	AO	Marks	Typical solution
10(b)(ii)	<p>Uses $\cos^2 x + \sin^2 x = 1$ or Draws right angled triangle with 3 and 7 on opp and hyp sides.</p> <p>PI by $\cos b = -\frac{2\sqrt{10}}{7}$ OE exact form</p>	3.1a	M1	$\cos^2 b + \left(-\frac{3}{7}\right)^2 = 1$ $\cos^2 b = \frac{40}{49}$ $\cos b = -\frac{2\sqrt{10}}{7}$
	<p>Obtains $\cos^2 b = \frac{40}{49}$</p> <p>Condone b replaced by different variable or</p> <p>obtains a ratio for cosine of the correct exact magnitude.</p>	1.1b	A1	
	<p>Deduces $\cos b = -\frac{2\sqrt{10}}{7}$</p> <p>OE exact form CAO</p>	2.2a	R1	
	Subtotal		3	

	Question 10 Total		8	
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