

<b>3</b>			<b>DR</b> (all parts)				
<b>3</b>	<b>(a)</b>	<b>(i)</b>	Show $f(1) = 0$	<b>B1</b> <b>[1]</b>	<b>1.1a</b>	Correct working and result seen	
<b>3</b>	<b>(a)</b>	<b>(ii)</b>	$(x - 1)$ is a factor Attempt find other (quadratic) factor, by any method, but must be seen $(x - 1)(2x^2 + 5x - 3)$ $(x - 1)(2x - 1)(x + 3)$ $x = 1$ or $\frac{1}{2}$ or $-3$	<b>B1</b> <b>M1</b>  <b>A1f</b> *  <b>A1</b> <b>[4]</b>	<b>2.2a</b>  <b>1.1</b>  <b>1.1</b>  <b>2.2a</b>	stated or implied, eg by attempt $\div$ by $(x-1)$ or show that $f(-3) = 0$ or $f(\frac{1}{2}) = 0$  or $x = \frac{-5 \pm \sqrt{25 - 4 \times 2 \times (-3)}}{4}$ Dep A1* cao. SC correct answer no working: B1 only	or $(2x - 1)$ or $(x + 3)$ is factor Inspection: Must have $2x^2$ and $\pm 3$ oe  ft their quad factor eg correct factors, no working B1 only
<b>3</b>	<b>(b)</b>		$\sin \theta = 1$ or $\sin \theta = \frac{1}{2}$  $\theta = 90^\circ, 30^\circ, 150^\circ$  $\sin \theta = -3$ gives no solution, or it doesn't exist oe or outside range or impossible or not acceptable oe	<b>M1</b>  <b>A3f</b>   <b>B1</b>  <b>[5]</b>	<b>3.2a</b>  <b>3.1a</b> <b>1.1</b> <b>1.1</b>  <b>2.3</b>	Use of a root from (a). May be implied  Three correct, none incorrect: A3 Three correct and $\geq 1$ incorrect: A2 Two correct: A2 One correct: A1 Statement needed. Ignore all else Not incorrect reason eg "no solution because minus": B0	ft their (a) for all A-marks  <b>Ignore</b> any "correct" solutions outside range Just "X" or "Error" not enough because <b>DR</b>