	Must be using x for both parts of the region not e.g., $x_1 \leq -2, \quad x_2 \geq \frac{4}{3}$ ISW once a correct answer is seen even if an incorrectly modified answer follows. Note that 0011 or 0010 are possible. Answer only is no marks but e.g., $3x^2 + 2x - 6 \geq 2, \quad x \leq -2, \quad x \geq \frac{4}{3}$ is 0011	
		(4)
		Total 7

Question Number	Scheme	Notes	Marks
3	Question has: "Solutions relying on calculator technology are not acceptable" Note that the "= 0" may be implied by solutions		
	$2y^2+1=\dfrac{15}{y^2} \Rightarrow 2y^4+y^2-15=0$	M1: Multiplies through by y^2 and forms a 3TQ equation in y^2 May be written as e.g., $2\left(y^2\right)^2+y^2=15$ A1: Any correct 3 term equation May have replaced y^2 with e.g., x	**M1** **A1**
	$\Rightarrow \left(2y^2-5\right)\left(y^2+3\right)=0 \Rightarrow \left\{y^2=\right\}\ldots$	Solves an equation which could be written in the form $ay^4+by^2+c=0$, $a, b, c \neq 0$ by a valid non-calculator method (see guidance) and finds at least one real value for y^2. May have replaced y^2 with e.g., x Do not condone if solutions are wrongly labelled e.g., as $y=\ldots$ instead of $y^2=\ldots$	**dM1**
	$\Rightarrow \left\{y=\right\} \pm \dfrac{\sqrt{10}}{2}$ or $\pm\sqrt{\dfrac{5}{2}}$ A1: One correct solution from a correct 3TQ. Note that e.g., $\Rightarrow \left(2y^2-5\right)\left(y^2-3\right)=0 \Rightarrow \left\{y=\right\}\dfrac{\sqrt{10}}{2}$ still scores this mark. Accept awrt ± 1.58 A1: Both correct exact solutions from a correct 3TQ. Ignore any of $\pm\sqrt{-3}$ or $\pm\sqrt{3}\,\mathrm{i}$ but A0 if **any (**real or complex) wrong solution is offered. Do not condone if clearly $\dfrac{\sqrt{5}}{2}$ but apply BOD if marginal. May not be labelled but final A0 if e.g., x = ... unless defined earlier		**A1** **A1**

	Alternative: $2y^2+1-\frac{15}{y^2}=0\Rightarrow\left(2y-\frac{5}{y}\right)\left(y+\frac{3}{y}\right)=0$ M1: Factorises allowing for sign/coefficient errors only A1: Correct factorisation $2y-\frac{5}{y}=0\Rightarrow 2y^2-5=0\Rightarrow y^2=\frac{5}{2};\qquad y=\pm\sqrt{\frac{5}{2}}\text{ or }\pm\frac{\sqrt{10}}{2}$ dM1: Proceeds with sign/coefficient errors only to a real value for y^2. Do not condone if this is mis-labelled e.g., as $y=...$ if should be $y^2=...$ A1A1: as above	
		(5)
		Total 5