

Q	Marking instructions	AO	Marks	Typical solution
9(a)	States one of the following transformations A Stretch in the y-direction, scale factor of 3 or B translation $\begin{bmatrix} 4 \\ 0 \end{bmatrix}$ or C stretch in the x-direction, scale factor of 3 or D translation $\begin{bmatrix} 4 \\ 3 \\ 0 \end{bmatrix}$ Only accept vectors for translations Allow 'parallel' or 'axis' for direction of stretch	3.1a	M1	Stretch in the y-direction by scale factor 3 and followed by translation $\begin{bmatrix} 4 \\ 0 \end{bmatrix}$
	Describes the sequence of two transformations in the correct order A followed by B or B followed by A or C followed by B or D followed by C Only accept vectors for translations Allow 'parallel' or 'axis' for direction of stretch	1.1b	A1	
	Subtotal		2	

Q	Marking instructions	AO	Marks	Typical solution
9(b)	States $x = 4$	1.1b	B1	$x = 4$
	Subtotal		1	

Q	Marking instructions	AO	Marks	Typical solution
9(c)	Explains that there could be more than one solution between the two points (3 and 5)	2.2b	E1	There could be more than one solution between the two points. The two points are either side of the asymptote.
	Explains that the two points (3 and 5) are either side of the asymptote or explains that it is discontinuous between the two points (3 and 5)	2.3	E1	
	Subtotal		2	

	Question 9 Total		5	
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