Question Number	Scheme	Marks
9(a)	$(A=)-3$	B1
		(1)
(b)	$y=3$	B1
	eg $x=30+5\times180$ or $x=210+720$ or $x=180+2\times360+30$	M1
	$x=930$	A1
		(3)
		Total 4

Check for answers next to the questions and on the graph. If there are contradictions then the answers given in the main body of the work takes precedence

(a)

B1: $(A=)-3$

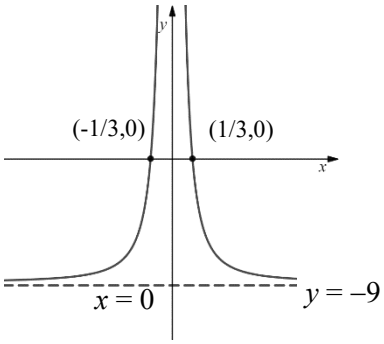
(b)

B1: Correct y coordinate only (others must be discarded)

M1: Correct strategy for the x coordinate. See scheme for examples.
Values embedded is sufficient for the mark.

A1: Correct x coordinate only (others must be discarded). Isw. Note $(930,\ 3)$ with no incorrect working and no other coordinates scores full marks.

Special case: If they give $(3,\ 930)$ or $\left(\frac{31}{6}\pi,\ 3\right)$ rather than $(930,\ 3)$ score B1M1A0

Question Number	Scheme	Marks
10(a)		B1B1B1B1
		(4)
(b)	$k < 0$	B1
	$\frac{1}{x^2} - 9 = kx^2 \Rightarrow 1 - 9x^2 = kx^4$	M1
	$1 - 9x^2 = kx^4 \Rightarrow kx^4 + 9x^2 - 1 = 0$ Require $b^2 - 4ac \Rightarrow 81 - 4 \times k \times -1$	M1
	Critical value $(k =) -\frac{81}{4}$	A1
	$-\frac{81}{4} < k < 0$	A1cso
		(5)
		Total 9

(a)

B1:  shape anywhere on a set of axes. Condone slips of the pen towards the asymptotes as long as they are not clear turning points.

B1: x intercepts at $\left(-\frac{1}{3}, 0\right)$ and $\left(\frac{1}{3}, 0\right)$. May be marked as $-\frac{1}{3}$ and $\frac{1}{3}$. Do not allow $\left(0, -\frac{1}{3}\right)$ or $\left(0, \frac{1}{3}\right)$ but condone lack of brackets around the coordinates. Only accept $0.\dot{3}$ and $-0.\dot{3}$ or equivalent. May be stated underneath.
Cannot be scored without a corresponding sketch.

B1: States the asymptote $x = 0$ or $y = -9$ **as long as it is an asymptote for their sketch**

B1: States both asymptotes $x = 0$ and $y = -9$ **as long as they are asymptotes for their sketch**

For the coordinates or asymptotes if they are written on the sketch and then stated underneath then the sketch takes precedence.