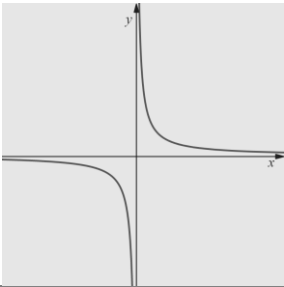


Question	Scheme	Marks	AOs	
4(a)		Shape in quadrant 1 <b>or</b> 3	M1	1.1b
		Shape and Position	A1	1.1b
		<b>(2)</b>		
(b)	Deduces that $x < 0$	B1	2.2a	
	Attempts $\frac{16}{x} \dots 2 \Rightarrow x \dots \pm \frac{16}{2}$	M1	1.1b	
	$x < 0$ or $x \dots 8$	A1 cso	2.2a	
		<b>(3)</b>		

**(5 marks)**

**Notes:**

(a)  
**M1:** For the correct shape in quadrant 1 **or** 3. Do not be concerned about position but it must not cross either axis. Ignore incorrect asymptotes for this mark.  
**A1:** Correct shape and position. There should be no curve in either quadrant 2 or quadrant 4. The curve must not clearly bend back on itself but condone slips of the pen.

(b)  
**B1:** Deduces that  $x < 0$  but condone  $x = 0$  for this mark.  
**M1:** Attempts  $\frac{16}{x} \dots 2 \Rightarrow x \dots \pm \frac{16}{2}$  where the ... means any equality or inequality.  
**A1:** cso  $x < 0$  or  $x \dots 8$  (Both required)  
Set notation may be seen  $\{x : x < 0\} \cup \{x : x \dots 8\}$  o.e.  $x \in (-\infty, 0) \cup [8, \infty)$   
Accept  $x < 0, x \dots 8$  but not  $x < 0$  and  $x \dots 8$   
Must not be combined incorrectly, e.g.,  $8, x < 0$  **or**  $\{x : x < 0\} \cap \{x : x \dots 8\}$