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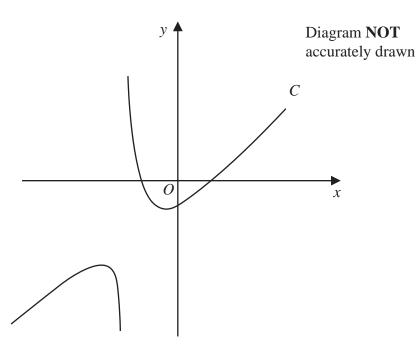


Figure 2

Figure 2 shows a sketch of part of the curve C with equation

$$y = \frac{x^2 - 1}{4x + 5} \quad \text{where} \quad x \neq -\frac{5}{4}$$

(a) Write down the equation of the asymptote to C that is parallel to the y-axis.

(1)

The line *l* is the normal to *C* at the point where x = -1

(b) Find an equation of *l* 

**(7)** 

The line l meets C again at the point D

(c) Find the coordinates of D

(6)

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Question 7 continued
(Total for Question 7 is 14 marks)

