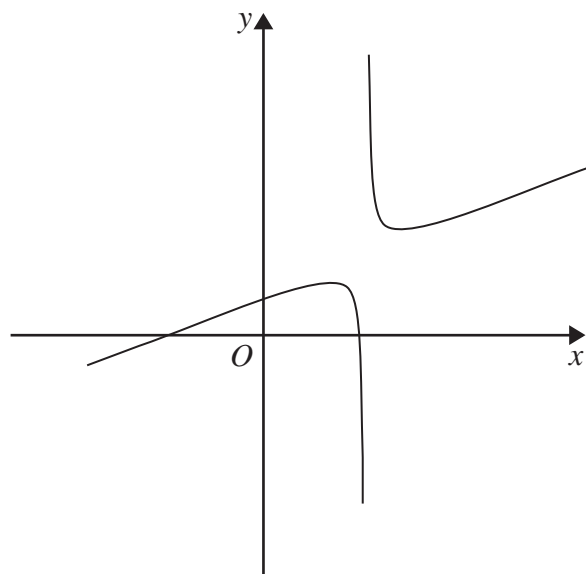**7**

Figure 1

Figure 1 shows the curve with equation $y = \dfrac{x^2 - 2}{2x - 3}$ where $x \neq \dfrac{3}{2}$

(a) Write down an equation of the asymptote to the curve which is parallel to the y-axis.

(1)

(b) Find $\dfrac{\mathrm{d}y}{\mathrm{d}x}$

(3)

(c) Find the coordinates of the stationary points on the curve.

(5)

P 4 6 2 4 1 A 0 1 2 3 6

Question 7 continued

P 4 6 2 4 1 A 0 1 3 3 6

Question 7 continued

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Question 7 continued

(Total for Question 7 is 9 marks)