

7 The curve C has equation $y = \frac{x}{x^2 + 4}$

(a) Using calculus, find the coordinates of the stationary points on C .

(5)

(b) Show that $\frac{d^2y}{dx^2} = \frac{2x(x^2 - 12)}{(x^2 + 4)^3}$

(4)

(c) Hence, or otherwise, determine the nature of each of these stationary points.

(2)

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Question 7 continued

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(Total for Question 7 is 11 marks)

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