

8

$$y = \frac{2e^{3x+1}}{5x^2}$$

(a) Find $\frac{dy}{dx}$

Give your answer in the form $\frac{Ae^{3x+1}(Bx-A)}{Cx^3}$ where A , B and C are prime numbers to be found.

(5)

The value of x increases by 2%

(b) Use your answer to part (a) to find an estimate, in terms of x , for the percentage change in y

Give your answer in the form $(Px - Q)$ where P and Q are integers.

(3)

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Question 8 continued

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Question 8 continued

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Question 8 continued

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(Total for Question 8 is 8 marks)



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