

4

$$f(x) = e^{3x} \sqrt{1 + 2x}$$

(a) Show that

$$f'(x) = \frac{2e^{3x}(2 + 3x)}{\sqrt{1 + 2x}} \quad (4)$$

(b) Find an equation of the normal to the curve with equation $y = f(x)$ at the point on the curve where $x = 0$ Give your answer in the form $ax + by + c = 0$ where a , b and c are integers.

(6)

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Question 4 continued

Handwriting practice area with horizontal dotted lines.

(Total for Question 4 is 10 marks)

