4. (a) Determine the general solution of the differential equation

$$\frac{dy}{dx} - 3y\tan x = e^{4x}\sec^3 x$$

giving your answer in the form $y = f(x)$

(5)

(b) Determine the particular solution for which $y = 4$ at $x = 0$

(2)

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Question 4 continued

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Question 4 continued

(Total for Question 4 is 7 marks)

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