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1. Find

$$\int \left(10x^5 + 6x^3 - \frac{3}{x^2}\right) \mathrm{d}x$$

giving your answer in simplest form.

(4)

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Question 1 continued

Q1

(Total 4 marks)

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2. In the triangle ABC,

- $AB = 21\,\text{cm}$
- $BC = 13\,\text{cm}$
- angle $BAC = 25°$
- angle $ACB = x°$

(a) Use the sine rule to find the value of $\sin x°$, giving your answer to 4 decimal places.

(2)

Given also that AB is the longest side of the triangle,

(b) find the value of x, giving your answer to 2 decimal places.

(3)

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