1. Find

$$\int (2x - 5)(3x + 2)(2x + 5)\mathrm{d}x$$

writing your answer in simplest form.

(5)

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Question 1 continued

(Total for Question 1 is 5 marks)

2. The triangle ABC is such that

- $AB = 15\,\text{cm}$
- $AC = 25\,\text{cm}$
- angle $BAC = \theta°$
- area triangle $ABC = 100\,\text{cm}^2$

(a) Find the value of $\sin \theta°$

(2)

Given that $\theta > 90$

(b) find the length of BC, in cm, to 3 significant figures.

(3)

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