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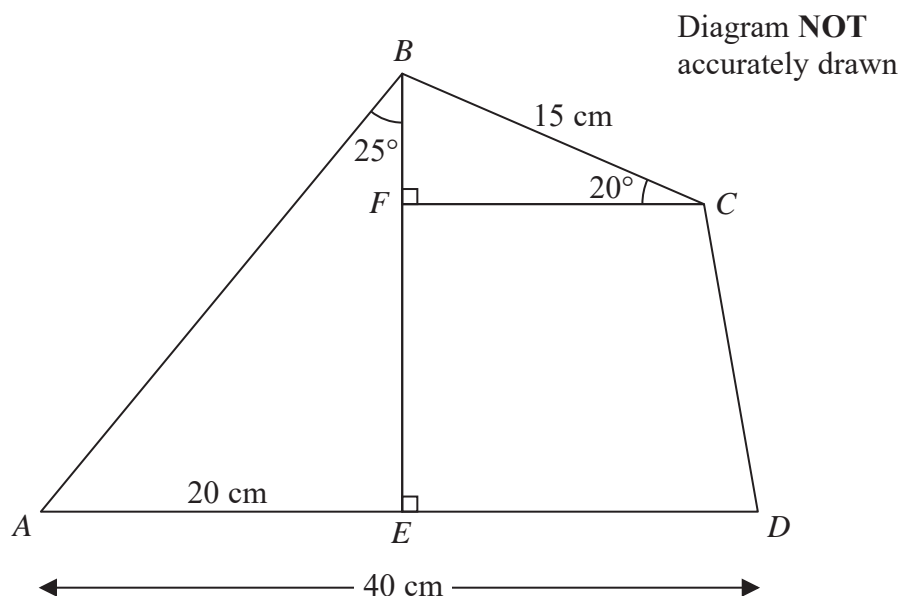


Figure 2

Figure 2 shows quadrilateral $ABCD$ in which $BC = 15$ cm and $AD = 40$ cm.

The point E on AD is such that BE is perpendicular to AD with $AE = 20$ cm and $\angle ABE = 25^\circ$

- (a) Calculate the length, in cm to 3 significant figures, of AB . (2)

The point F on BE is such that FC is perpendicular to BE with $\angle BCF = 20^\circ$

Calculate the length, in cm to 3 significant figures, of

- (b) FC , (2)

- (c) AC . (3)

- (d) Calculate the area, in cm^2 to 3 significant figures, of quadrilateral $ABCD$. (6)

$$\left[\begin{array}{l} \text{Cosine rule: } a^2 = b^2 + c^2 - 2bc \cos A \\ \text{Area of triangle} = \frac{1}{2} bc \sin A \\ \text{Area of trapezium} = \frac{1}{2} (a + b)h \\ \text{Sine rule: } \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} \end{array} \right]$$



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Question 10 continued

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Question 10 continued

Handwriting practice area with horizontal dotted lines.

(Total for Question 10 is 13 marks)

