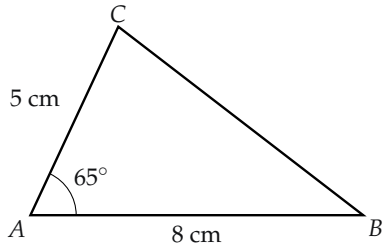
Exercise 1

Paper 2 style · Graphic display calculator

1 6 marks SL 3.2

●○○ Routine

In the triangle ABC, $AB = 8$ cm, $AC = 5$ cm and $B\hat{A}C = 65°$.



(a) Find BC. **[2]**

(b) Find the area of the triangle ABC. **[2]**

(c) Find $A\hat{B}C$. **[2]**

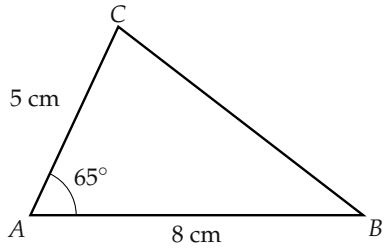
The markscheme is on the next page: try the question first. Written and verified by a practising IB mathematics teacher, produced with AI assistance; solved twice and recomputed by software. Not affiliated with or endorsed by the International Baccalaureate Organization.
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Exercise 1 — markscheme

Paper 2 style · Graphic display calculator

1 6 marks SL 3.2 ●○○ Routine

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(a) Find BC. **[2]**

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MARKSCHEME (a)

$BC^2 = 8^2 + 5^2 - 2 \times 8 \times 5\cos 65°$ **M1**

$BC = 7.43$ cm $(7.42903\ldots)$ **A1**

Total 2 marks

MARKSCHEME (b)

$\frac{1}{2} \times 8 \times 5\sin 65°$ **(M1)**

18.1 cm^2 $(18.1261\ldots)$ **A1**

Total 2 marks

MARKSCHEME (c)

$\frac{\sin B}{5} = \frac{\sin 65°}{7.42903\ldots}$ **M1**

$A\hat{B}C = 37.6°$ $(37.5878\ldots)$ **A1**

Total 2 marks

Note Use the unrounded value of BC.