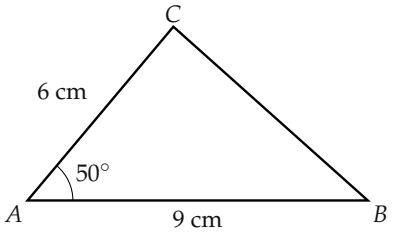
Marked example 1

Paper 2 style · Graphic display calculator

1 6 marks SL 3.2 · 3.3 ●○○ Routine

In the triangle ABC, $AB = 9$ cm, $AC = 6$ cm and $B\hat{A}C = 50°$.



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

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

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

MARKSCHEME (a)

$BC^2 = 9^2 + 6^2 - 2 \times 9 \times 6\cos 50°$ **M1**

$BC = 6.90$ cm $(6.89774\ldots)$ **A1**

Total 2 marks

MARKSCHEME (b)

$\frac{1}{2} \times 9 \times 6\sin 50°$ **(M1)**

20.7 cm^2 $(20.6831\ldots)$ **A1**

Total 2 marks

MARKSCHEME (c)

$\frac{\sin B}{6} = \frac{\sin 50°}{6.89774\ldots}$ **M1**

$A\hat{B}C = 41.8°$ $(41.7854\ldots)$ **A1**

Total 2 marks

Note Use the unrounded value of BC.

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. © 2026 Hence