## Trigonometry (Q 5, Paper 2)

2007
5 (a) Calculate the area of the triangle shown.
Give your answer correct to one decimal place.

(b) In the right-angled triangle $a b c,|a b|=5 \mathrm{~cm}$.

The area of the triangle is $15 \mathrm{~cm}^{2}$.
(i) Find $|b c|$.
(ii) Find $|\angle c a b|$, correct to the nearest degree.

(iii) Find $|\angle b c a|$, correct to the nearest degree.
(c) In the triangle $p q r$, $|p q|=|p r|,|q r|=15 \mathrm{~cm}$ and $|r p q|=40^{\circ}$.
(i) Find $|p r|$, correct to the nearest centimetre.
(ii) $s$ is a point on $q r$ such that $|r s|=10 \mathrm{~cm}$.

Find $|p s|$, correct to the nearest centimetre.


## Answers

$5 \quad$ (a) $4.9 \mathrm{~cm}^{2}$
(b) (i) $|b c|=6 \mathrm{~cm}$
(ii) $50^{\circ}$
(iii) $40^{\circ}$
(c) (i) 22 cm
(ii) 27 cm

