## Trigonometry (Q 5, Paper 2)

5 (a) In the triangle $a b c,|a b|=7 \mathrm{~m},|b c|=8 \mathrm{~m}$ and $|\angle a b c|=42^{\circ}$. Calculate the area of the triangle, correct to one place of decimals.

(b) The diagram shows a vertical pole which stands on level ground.
A cable joins the top of the pole to a point on the ground which is 50 m from the base of the pole. The cable makes an angle of $66^{\circ} 25^{\prime}$ with the ground.
(i) Find the height of the pole, correct to the nearest metre.
(ii) Find the length of the cable, correct to the nearest metre.

(c) (i) In the diagram, the triangle $z x y$ is right-angled. $|z x|=8 \mathrm{~m}$ and $|z y|=15 \mathrm{~m}$.
Find $|x y|$.
(ii) $x p$ is parallel to $z y$.
$|x p|=|x y|$, as shown.
Calculate |py|, correct to the nearest metre.


## Answers

$5 \quad$ (a) $18.7 \mathrm{~m}^{2}$
(b) (i) 115 m
(ii) 125 m
(c) (i) 17 m
(ii) 8 m

