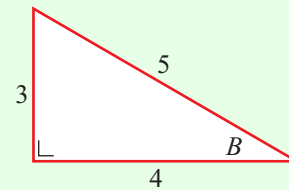


TRIGONOMETRY (Q 5, PAPER 2)

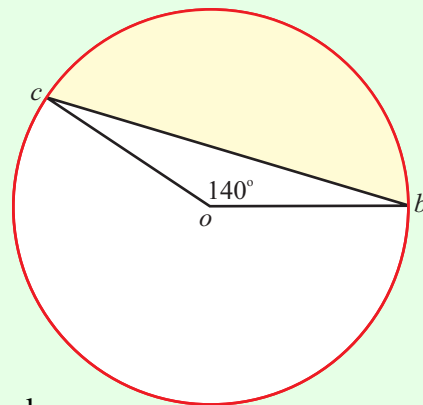
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- 5 (a) The lengths of the sides of a right-angled triangle are shown in the diagram and B is the angle indicated. Find the value of $\sin B \cos B$, as a fraction.



- (b) A circle has centre O and radius 7 cm. The two points b and c are on the circle and $|\angle boc| = 140^\circ$.

- (i) Find the area of the triangle obc , correct to the nearest cm^2 .
- (ii) Find the area of the sector obc , correct to the nearest cm^2 .
- (iii) Taking the areas correct to the nearest cm^2 , express the area of the shaded region as a fraction of the total area enclosed by the circle. Give your answer as a fraction in its simplest form.



- (c) One side of a triangle has length 8 cm and another has length 3 cm. The angle between these two sides measures 60° .

- (i) Find the length of the third side.
- (ii) Find the measures of the two remaining angles, correct to the nearest degree.

ANSWERS

5 (a) $\frac{12}{25}$

(b) (i) 16 cm^2 (ii) 60 cm^2 (iii) $\frac{2}{7}$

(c) (i) 7 cm (ii) 22° , 98°