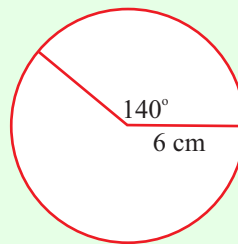


TRIGONOMETRY (Q 5, PAPER 2)

1998

- 5 (a) The angle at the centre of a sector of a disc measures 140° .
The radius of the disc measures 6 cm.
Find, in terms of π , the area of the sector.



- (b) A is an acute angle such that $\tan A = \frac{21}{20}$.
(i) Find, as fractions, the value of $\cos A$ and the value of $\sin A$.
(ii) Find the measurement of angle A , correct to the nearest degree.

- (c) Three ships are situated in a straight line at points a , b and c .

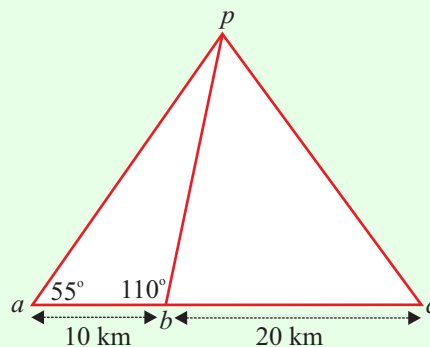
p is a port such that

$$|\angle bap| = 55^\circ, |\angle abp| = 110^\circ,$$

$$|ab| = 10 \text{ km and } |bc| = 20 \text{ km.}$$

Calculate

- (i) $|bp|$, correct to the nearest km
(ii) $|cp|$, correct to the nearest km.



ANSWERS

5 (a) $14\pi \text{ cm}^2$

(b) (i) $\frac{20}{29}, \frac{21}{29}$

(ii) 46°

(c) (i) 32 km

(ii) 31 km