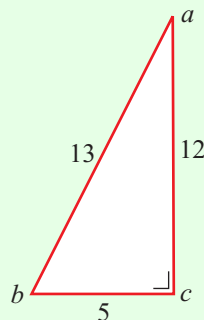


TRIGONOMETRY (Q 5, PAPER 2)

1999

- 5 (a) abc is a right-angled triangle with $|\angle acb| = 90^\circ$,
 $|ab| = 13$, $|bc| = 5$ and $|ac| = 12$.

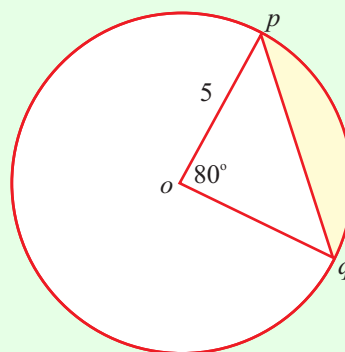
Find, as fractions, the value of $\sin \angle abc$ and
the value of $\tan \angle bac$.



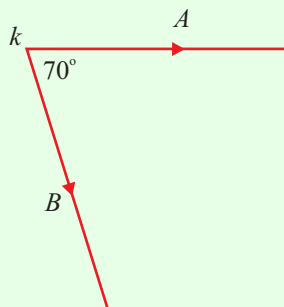
- (b) In the diagram, o is the centre of the circle with radius length 5 and p and q are points on the circle.
 $|\angle poq| = 80^\circ$.

Find, correct to two places of decimals,

- (i) the area of triangle poq
(ii) the area of the shaded region, taking $\pi = 3.14$.



- (c) Two ships, A and B , leave port k at noon.
 A is travelling due East and B is travelling
East 70° South, as shown.
Calculate, to the nearest km, the distance
between A and B when A is 8 km from k
and B is 12 km from k .


ANSWERS

- 5 (a) $\frac{12}{13}$, $\frac{5}{12}$
(b) (i) 12.31 units² (ii) 5.13 units²
(c) 12 km