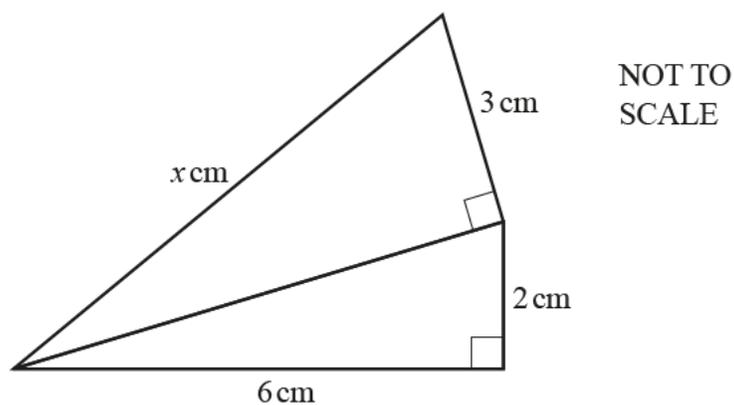


1. Nov/2021/Paper_23/No.24

(a)

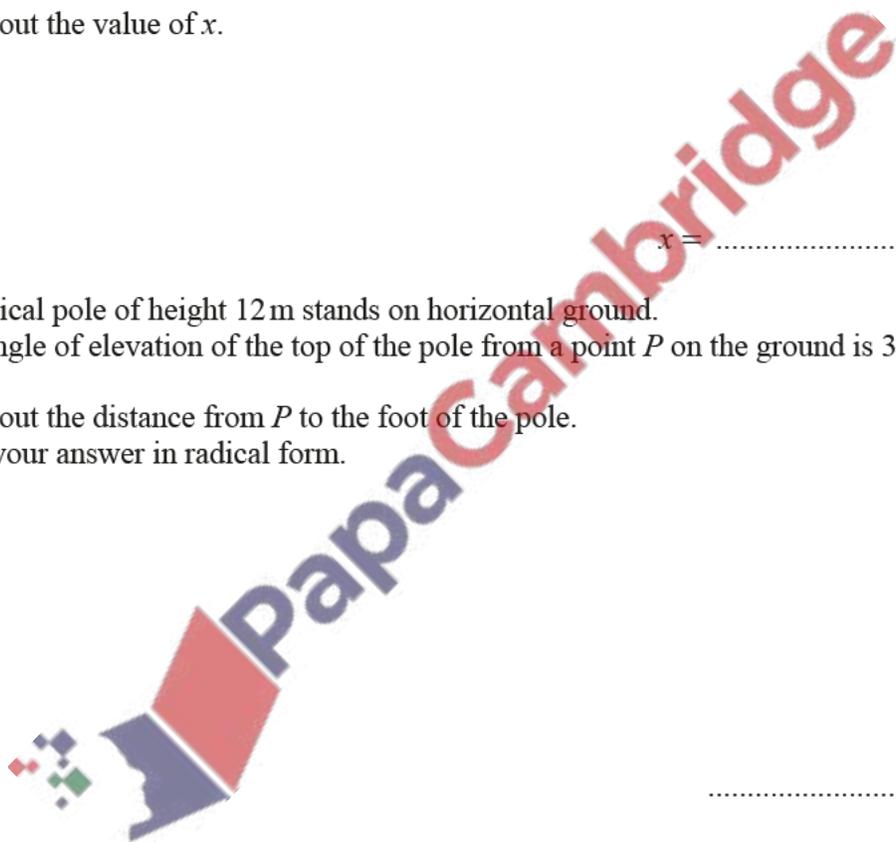


Work out the value of x .

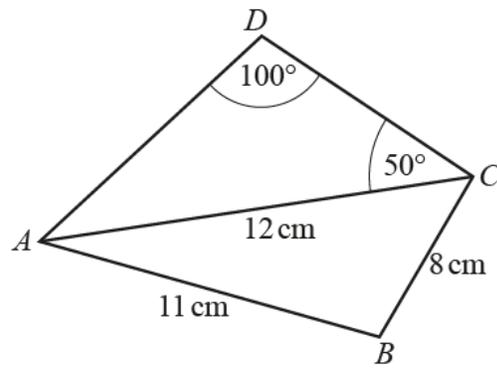
$x = \dots\dots\dots$ [3]

(b) A vertical pole of height 12 m stands on horizontal ground.
The angle of elevation of the top of the pole from a point P on the ground is 30° .

Work out the distance from P to the foot of the pole.
Give your answer in radical form.



$\dots\dots\dots$ m [3]



NOT TO SCALE

(a) Calculate AD .

$AD = \dots\dots\dots$ cm [3]

(b) Calculate angle BAC and show that it rounds to 40.42° , correct to 2 decimal places.

[4]

(c) Calculate the area of the quadrilateral $ABCD$.

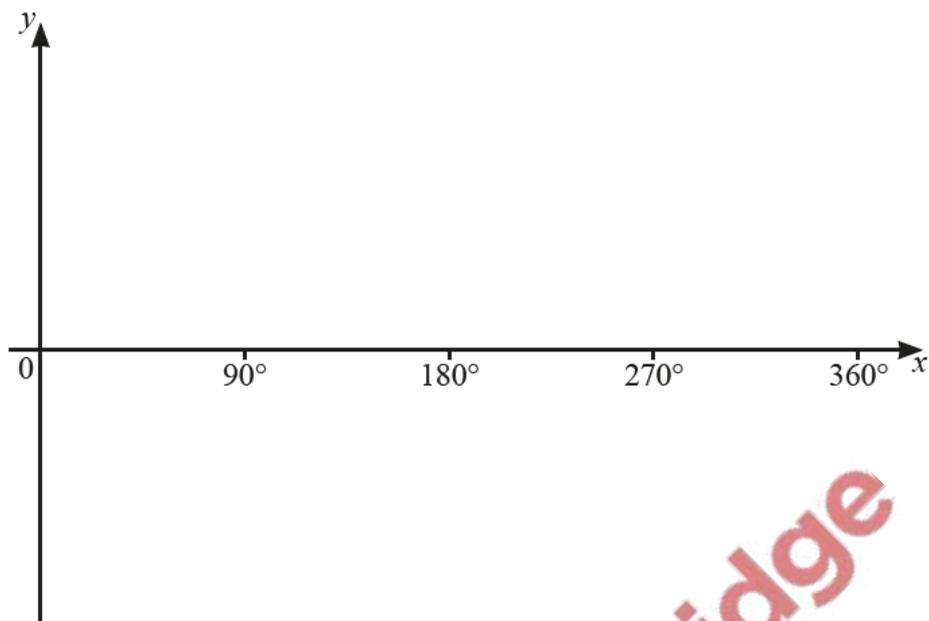
$\dots\dots\dots$ cm^2 [3]

(d) Calculate the shortest distance from B to AC .

$\dots\dots\dots$ cm [3]

3. June/2021/Paper_21/No.20

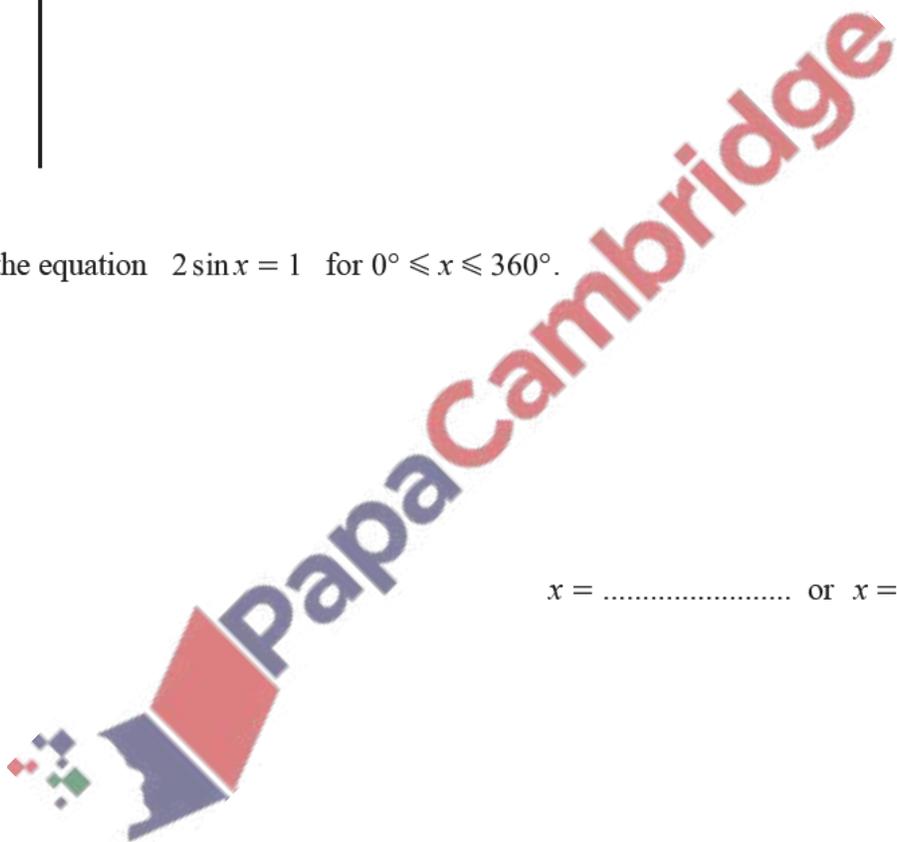
(a) Sketch the graph of $y = \sin x$ for $0^\circ \leq x \leq 360^\circ$.

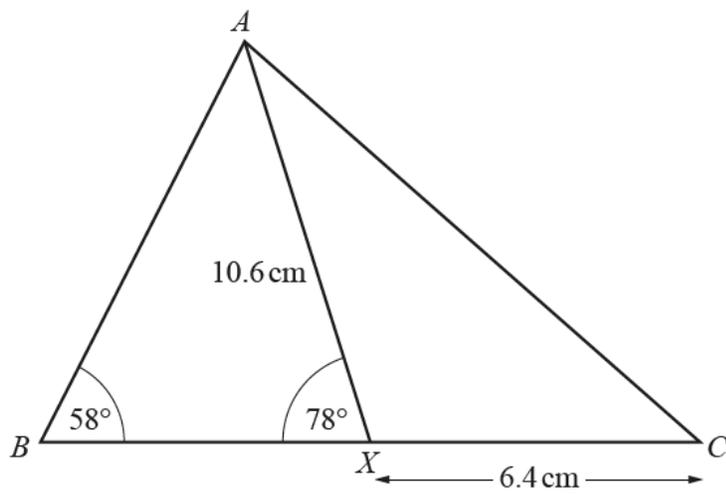


[2]

(b) Solve the equation $2 \sin x = 1$ for $0^\circ \leq x \leq 360^\circ$.

$x = \dots\dots\dots$ or $x = \dots\dots\dots$ [2]





NOT TO
SCALE

The diagram shows triangle ABC .

X is a point on BC .

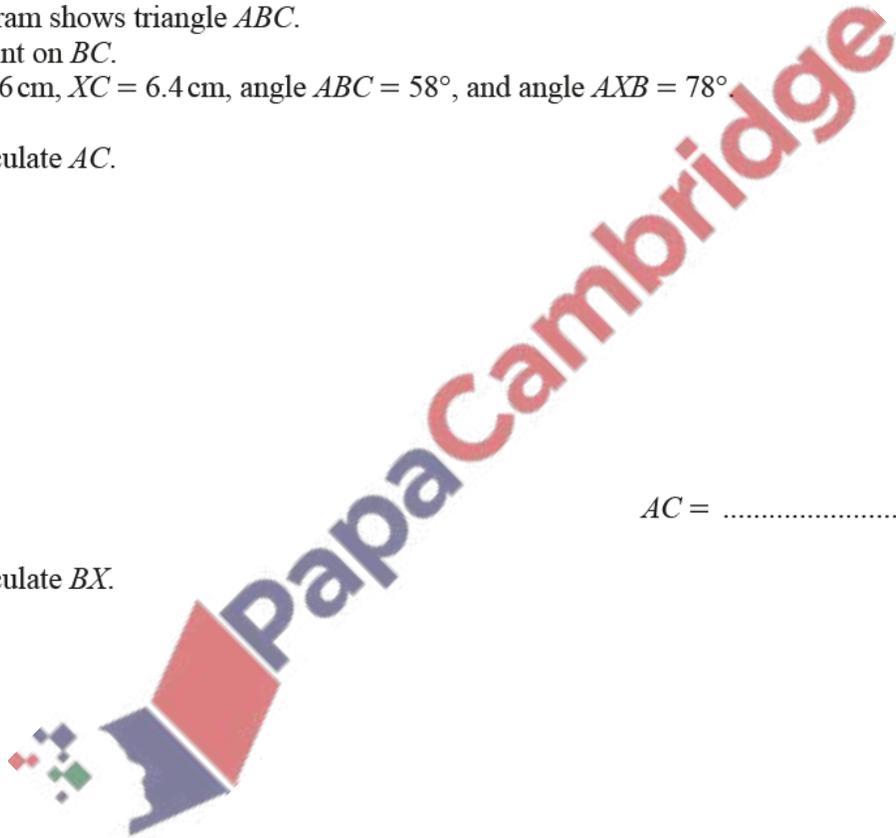
$AX = 10.6$ cm, $XC = 6.4$ cm, angle $ABC = 58^\circ$, and angle $AXB = 78^\circ$

(a) Calculate AC .

$AC = \dots\dots\dots$ cm [4]

(b) Calculate BX .

$BX = \dots\dots\dots$ cm [4]



(c) Calculate the area of triangle ABC .

..... cm^2 [3]

