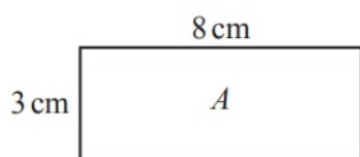


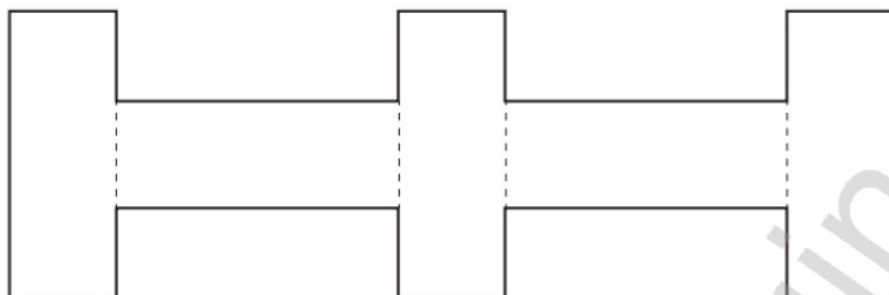
Q Basic Area, Perimeter, Pythagoras and SOHCAHTOA

- 1** Rectangle A measures 3 cm by 8 cm.



NOT TO
SCALE

Five rectangles congruent to A are joined to make a shape.

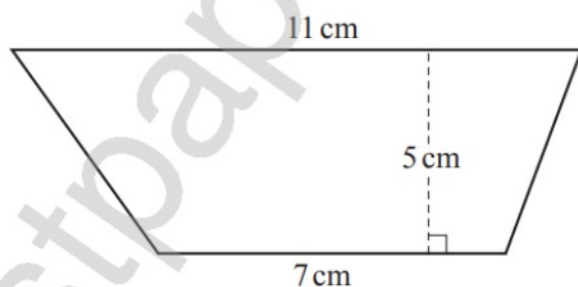


NOT TO
SCALE

Work out the perimeter of this shape.

..... cm [2]

6

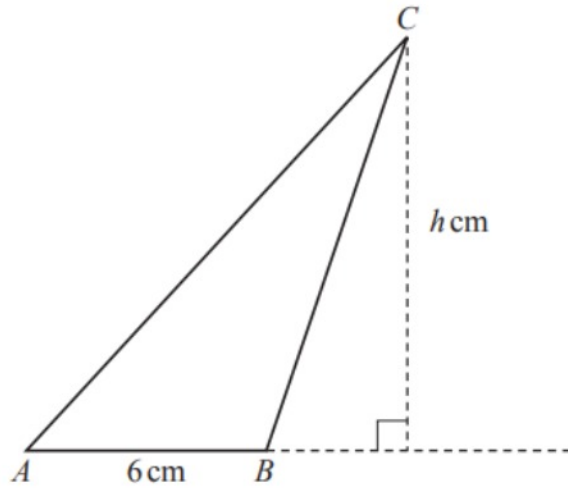


NOT TO
SCALE

Calculate the area of the trapezium.

..... cm² [2]

7

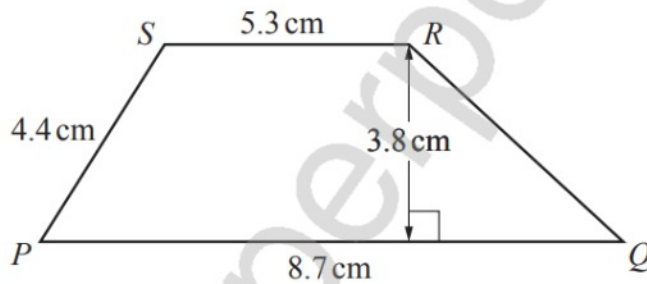
NOT TO
SCALE

The area of triangle ABC is 27 cm^2 and $AB = 6\text{ cm}$.

Calculate the value of h .

$h = \dots\dots\dots$ [2]

10

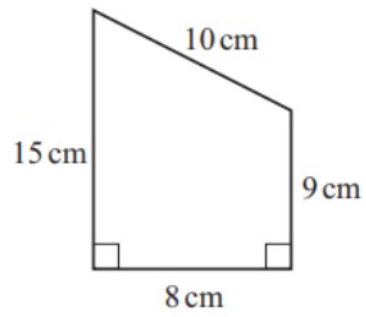
NOT TO
SCALE

The diagram shows a trapezium $PQRS$.

Calculate the area of the trapezium.

$\dots\dots\dots\text{ cm}^2$ [2]

6

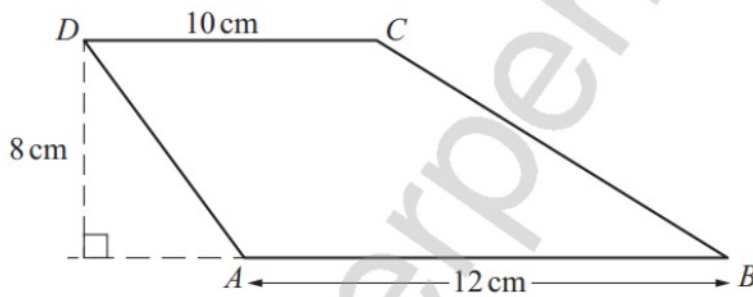


NOT TO
SCALE

Work out the area of the trapezium.

..... cm^2 [2]

4



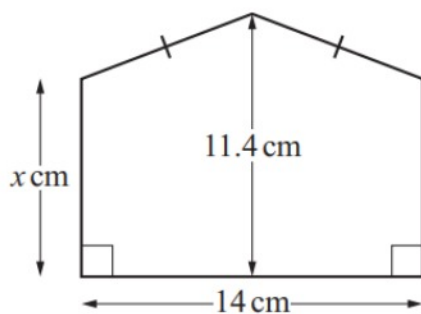
NOT TO
SCALE

$ABCD$ is a trapezium.

Work out the area of the trapezium.

..... cm^2 [2]

- 4 The diagram shows a pentagon made from two congruent trapeziums.



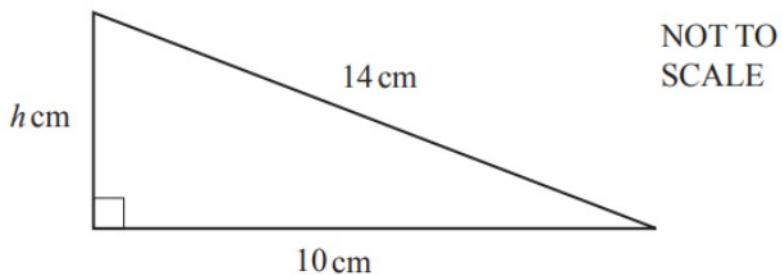
NOT TO
SCALE

The area of the pentagon is 130.2 cm^2 .

Calculate the value of x .

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

10



The diagram shows a right-angled triangle.

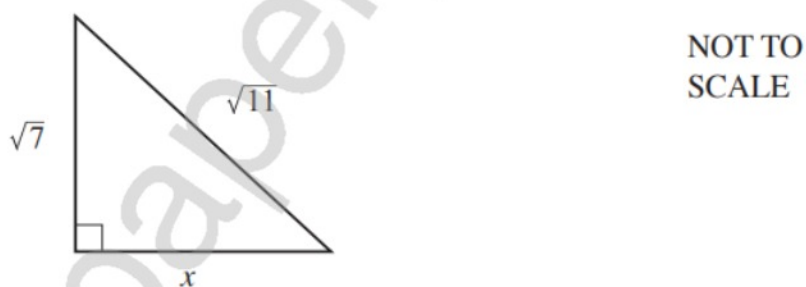
(a) Calculate the value of h .

$h =$ [3]

(b) Find the perimeter of this triangle.

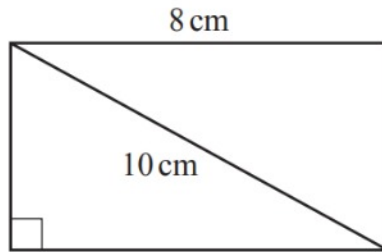
..... cm [1]

15



Find the value of x .

$x =$ [2]

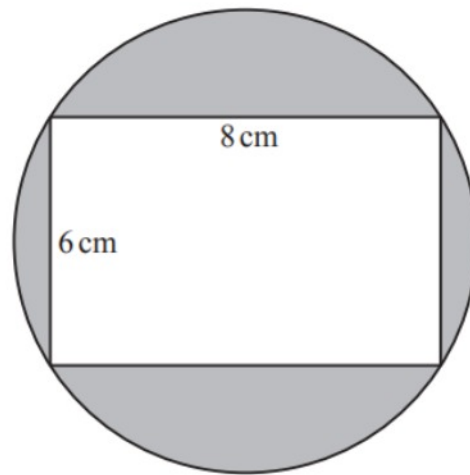


NOT TO
SCALE

The length of the diagonal of the rectangle is 10 cm.
The length of the rectangle is 8 cm.

Work out the width of the rectangle.

..... cm [3]



NOT TO
SCALE

The four vertices of the rectangle each lie on the circle.

Find the shaded area.

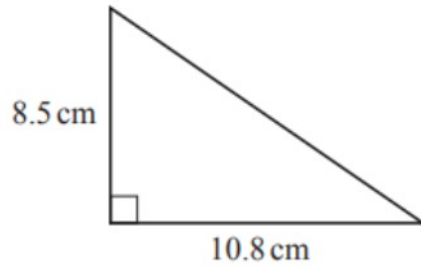
Give your answer, in terms of π , in its simplest form.

..... cm^2 [4]

- 13** The length of one side of a rectangle is 12 cm.
The length of the diagonal of the rectangle is 13 cm.

Calculate the area of the rectangle.

..... cm^2 [3]



NOT TO
SCALE

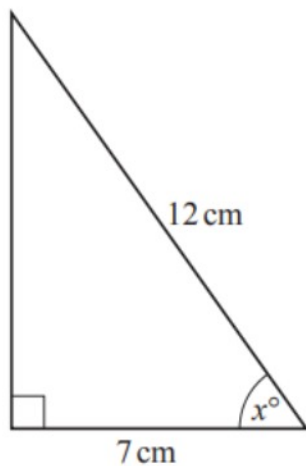
The diagram shows a right-angled triangle.

(a) Calculate the area.

..... cm² [2]

(b) Calculate the perimeter.

..... cm [3]

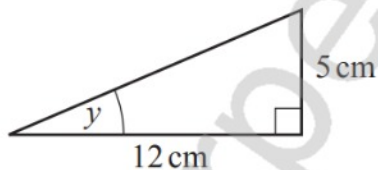


NOT TO
SCALE

Calculate the value of x .

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

- 7 Find, as a fraction, the value of $\sin y$.



NOT TO
SCALE

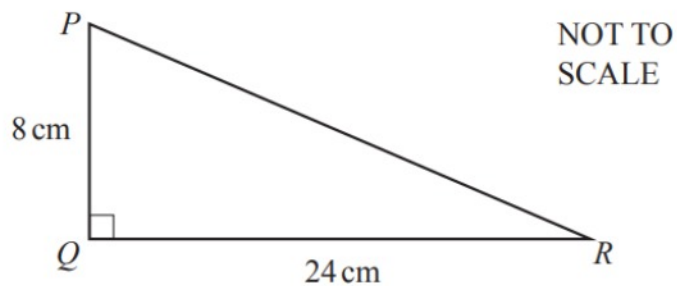
$\sin y = \dots\dots\dots$ [3]

- 12 The lengths of the sides of a triangle are 3 cm, 4 cm and 5 cm.

Find the sine of the smallest angle.

$\dots\dots\dots$ [1]

4 (a)



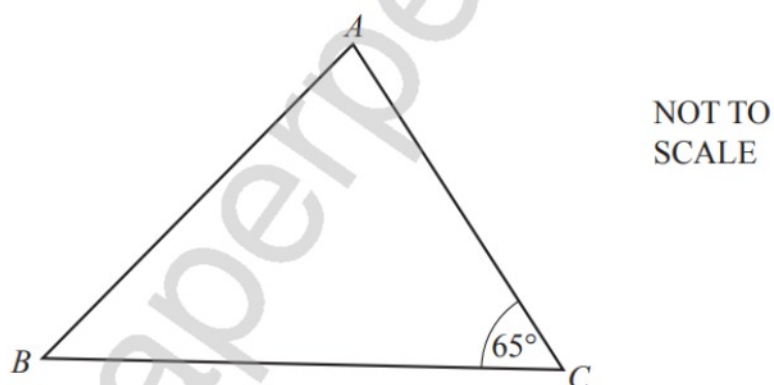
(i) Calculate the area of triangle PQR .

..... cm^2 [2]

(ii) Calculate angle PRQ .

Angle $PRQ =$ [2]

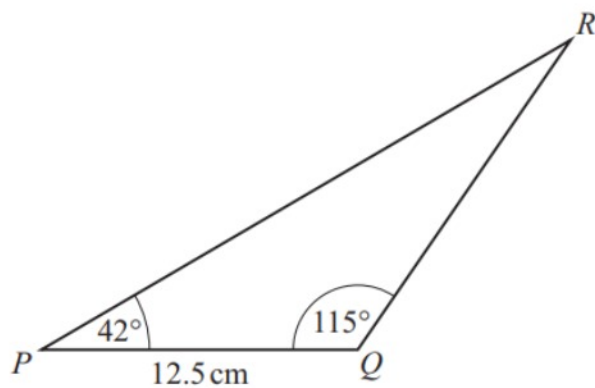
21



The shortest distance from B to AC is 12.8 cm .

Calculate BC .

$BC =$ cm [3]



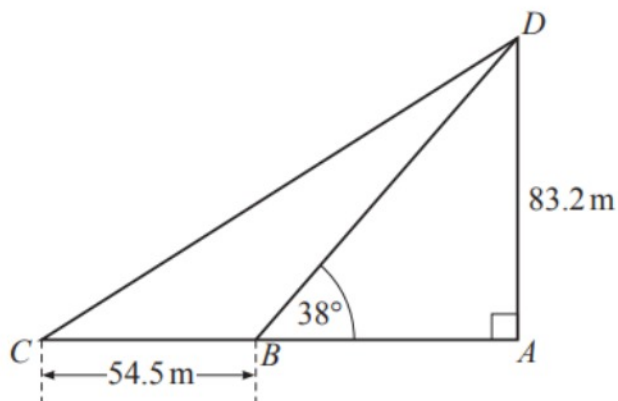
NOT TO
SCALE

The diagram shows triangle PQR .

Calculate the shortest distance from Q to PR .

..... cm [3]

5 (a)

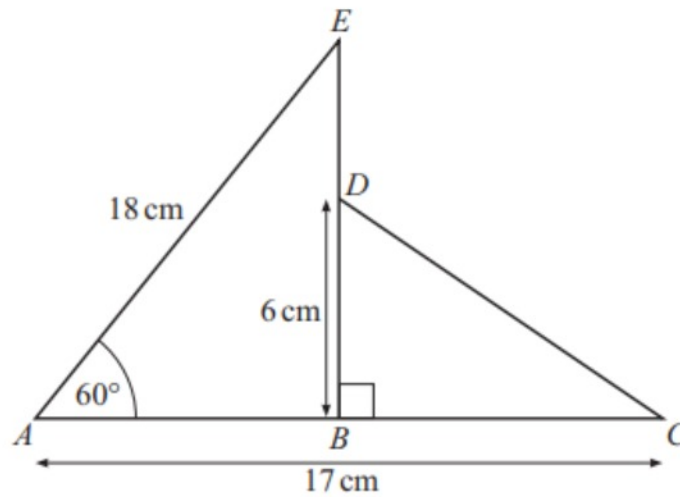


NOT TO
SCALE

ACD is a right-angled triangle.
 B is on AC and $BC = 54.5$ m.
 $AD = 83.2$ m and angle $ABD = 38^\circ$.

Calculate angle ACD .

Angle $ACD = \dots\dots\dots$ [5]



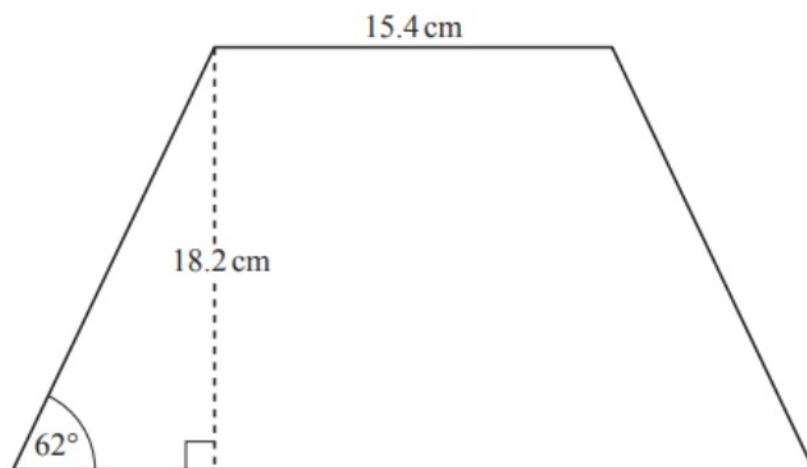
The quadrilateral $ACDE$ is formed by two right-angled triangles ABE and BCD .
 $AC = 17$ cm, $AE = 18$ cm and $BD = 6$ cm.

- (a) Show that $CD = 10$ cm.

[5]

- (b) Find the perimeter of the quadrilateral $ACDE$.
 Give your answer in the form $p + k\sqrt{q}$.

..... cm [4]

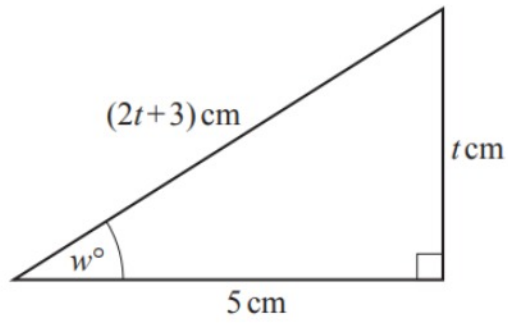


NOT TO
SCALE

The diagram shows a trapezium.
The trapezium has one line of symmetry.

Work out the area of the trapezium.

..... cm² [4]



NOT TO
SCALE

The diagram shows a right-angled triangle.

Find the value of w .

$w = \dots\dots\dots$ [7]