**1.** **[3 marks]**

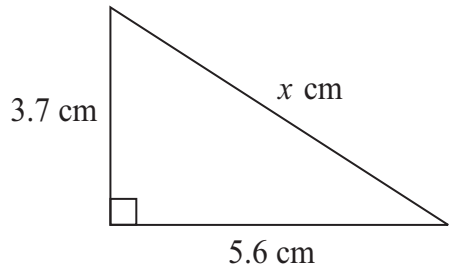



Diagram **NOT** accurately drawn

Work out the value of $x$.
Give your answer correct to 3 significant figures.

**2.** **[3 marks]**

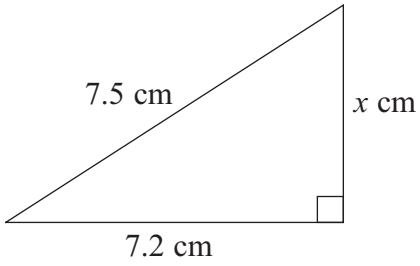



Diagram **NOT** accurately drawn

Work out the value of $x$.

$x$ = .....

**3.** **[3 marks]**

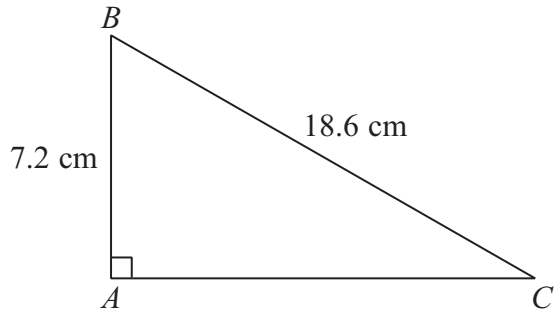



Diagram **NOT** accurately drawn

Calculate the length of $AC$.
Give your answer correct to 3 significant figures.

..... cm

**4.** **[3 marks]**

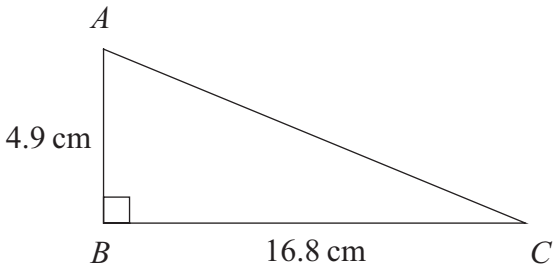



Diagram **NOT** accurately drawn

$ABC$ is a triangle.
Angle $ABC = 90°$.
$AB = 4.9$ cm.
$BC = 16.8$ cm.

Calculate the length of $AC$.

..... cm

**5.** **[3 marks]**

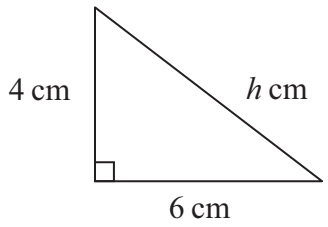



Diagram **NOT** accurately drawn

Calculate the value of $h$.
Give your answer correct to 3 significant figures.

$h$ = .....

**6.** **[3 marks]**

Here is a right-angled triangle.

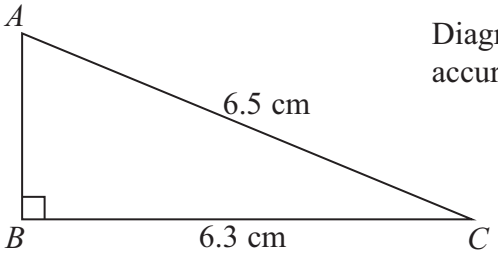



Diagram **NOT** accurately drawn

$AC = 6.5$ cm.
$BC = 6.3$ cm.
Angle $ABC = 90°$

Calculate the length of $AB$.

**7.** **[4 marks]**

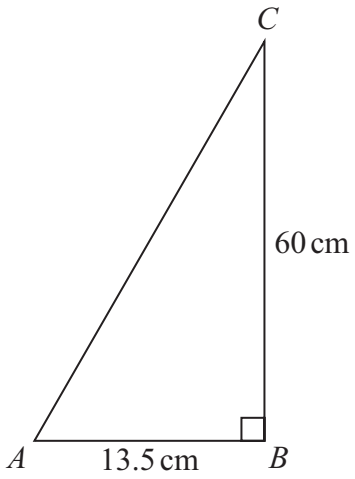



Diagram **NOT** accurately drawn

Work out the perimeter of the triangle.

..... cm

**8.** **[5 marks]**

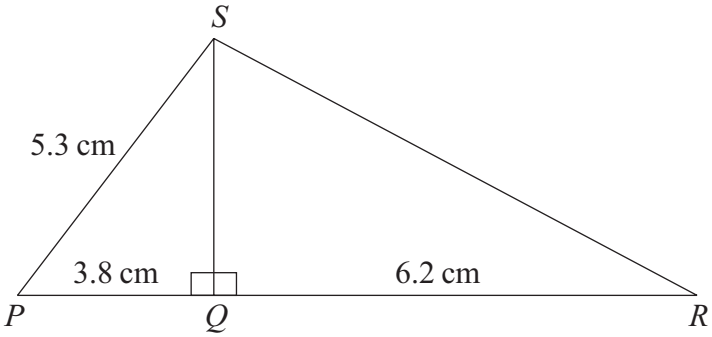



Diagram **NOT** accurately drawn

Angle $PQS = 90°$.
Angle $RQS = 90°$.
$PS = 5.3$ cm, $PQ = 3.8$ cm, $QR = 6.2$ cm.

Calculate the length of $RS$.
Give your answer correct to 3 significant figures.

..... cm

**9.** **[4 marks]**

Here is the quadrilateral *ABCD*.

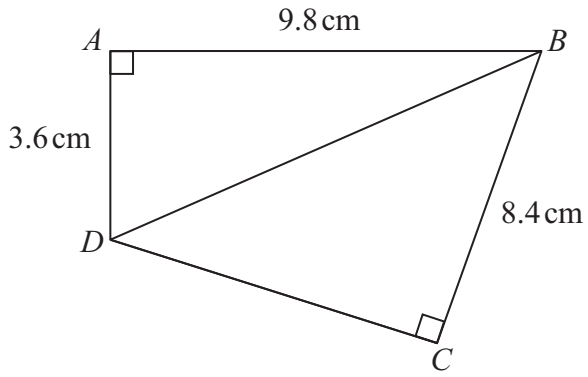



Diagram **NOT** accurately drawn

Angle *BAD* = 90° and angle *BCD* = 90°
*AB* = 9.8 cm
*AD* = 3.6 cm
*BC* = 8.4 cm

Calculate the length of *DC*.

..... cm

**10.** **[4 marks]**

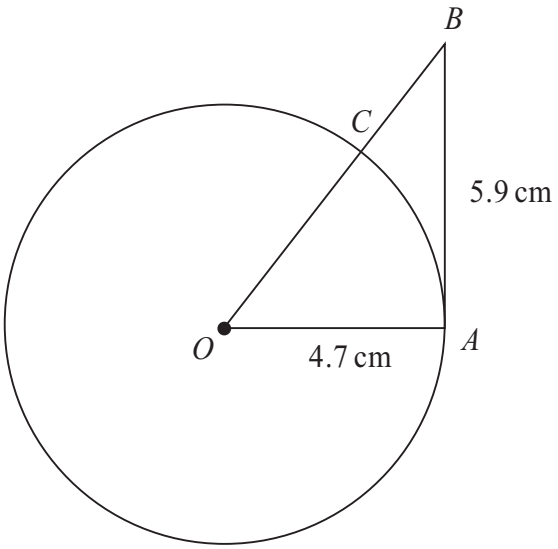



Diagram **NOT** accurately drawn

*A* is a point on a circle with centre *O* and radius 4.7 cm.
*AB* is the tangent to the circle at *A*.
*AB* = 5.9 cm.
*OB* intersects the circle at *C*.

Calculate the length of *BC*.
Give your answer correct to 3 significant figures.

..... cm

**11.** **[4 marks]**

The diagram shows a circle with centre $O$ and radius 5 cm.

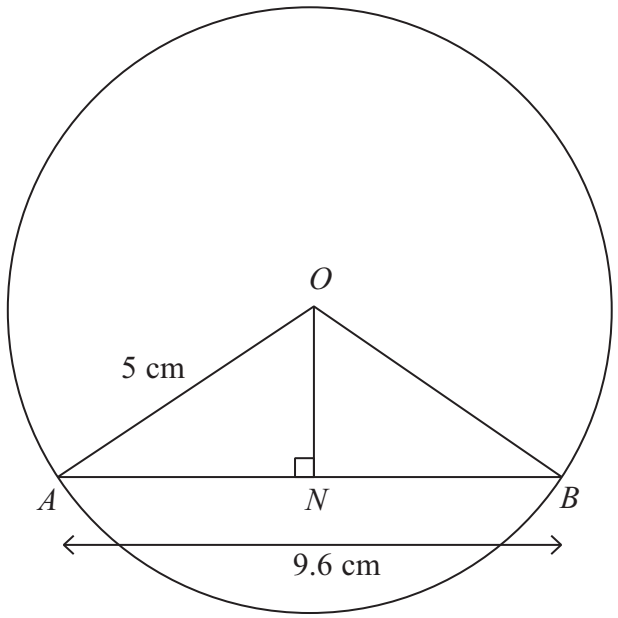



Diagram **NOT** accurately drawn

$ANB$ is a chord of the circle.
$AB$ = 9.6 cm.
Angle $ONA$ = 90°.

(a) Write down the length of $AN$.

..... cm
**(1)**

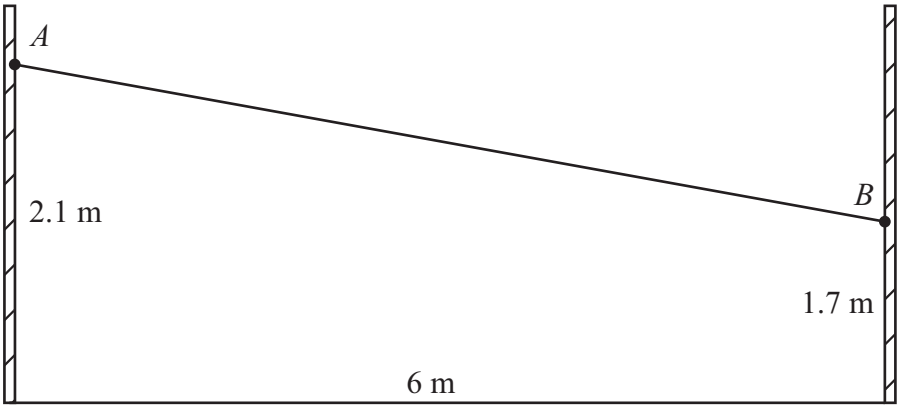
(b) Calculate the length of $ON$.

..... cm
**(3)**

**12.** **[4 marks]**

A washing line is attached at points *A* and *B* on two vertical posts standing on horizontal ground.
Point *A* is 2.1 metres above the ground on one post.
Point *B* is 1.7 metres above the ground on the other post.
The horizontal distance between the two posts is 6 metres.

Diagram **NOT** accurately drawn




Calculate the distance *AB*.
Give your answer correct to 3 significant figures.

..... m

**13.** **[4 marks]**

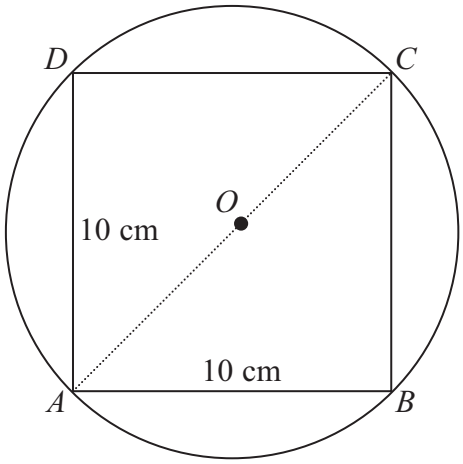



Diagram **NOT** accurately drawn

The diagram shows a square *ABCD* drawn inside a circle, centre *O*.
*A*, *B*, *C* and *D* are points on the circle.
The lengths of the sides of the square are 10 cm.
*AC* is a diameter of the circle.

Calculate the circumference of the circle.
Give your answer correct to 3 significant figures.

..... cm

**14.** **[5 marks]**

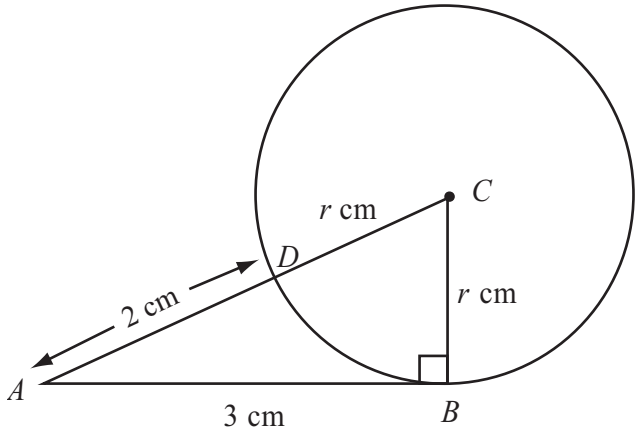



Diagram **NOT** accurately drawn

*B* and *D* are points on a circle, centre *C*.
*AB* is the tangent to the circle at *B*.
*ADC* is a straight line.
*AB* = 3 cm.
*AD* = 2 cm.

The radius of the circle is *r* cm.
Find the value of *r*.

*r* = .....