5.

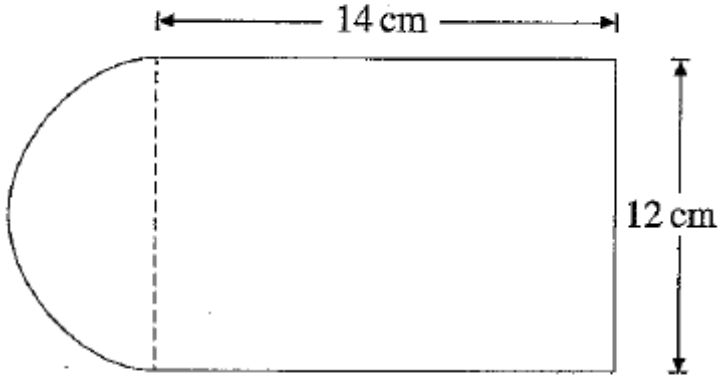


Diagram **NOT** accurately drawn

The diagram shows a shape, made from a semi-circle and a rectangle.
The diameter of the semi-circle is 12 cm.
The length of the rectangle is 14 cm.

Calculate the **perimeter** of the shape.
Give your answer correct to 3 significant figures.

5.

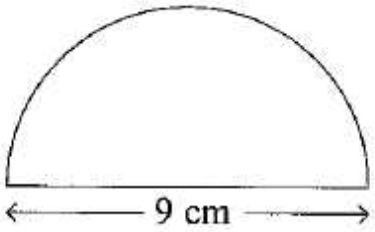


Diagram **NOT** accurately drawn

A semicircle has a diameter of 9 cm.

Work out the perimeter of the semicircle.
Give your answer correct to 3 significant figures.

18. The diagram shows the shape $PQRST$.

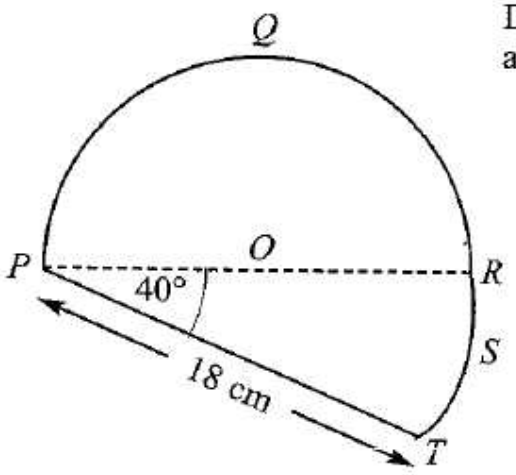


Diagram **NOT** accurately drawn.

RST is a circular arc with centre P and radius 18 cm.

Angle $RPT = 40°$.

(a) Calculate the length of the circular arc RST.
Give your answer correct to 3 significant figures.

..... cm
(2)

PQR is a semicircle with centre O.

(b) Calculate the **total** area of the shape $PQRST$.
Give your answer correct to 3 significant figures.

..... cm^2
(3)

2. A can of drink is in the shape of a cylinder.
The can has a radius of 4 cm and a height of 15 cm.

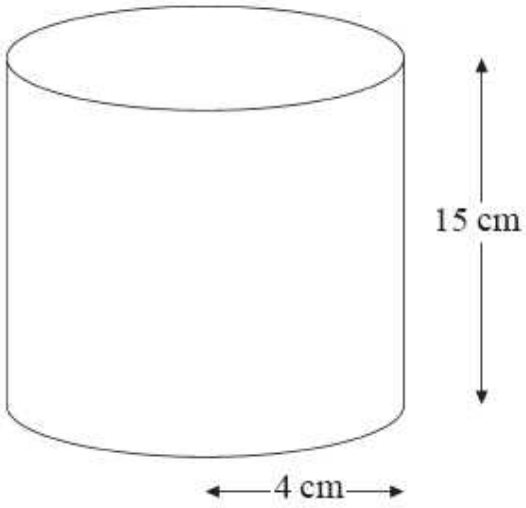


Diagram **NOT** accurately drawn

Calculate the volume of the cylinder.
Give your answer correct to 3 significant figures.

6.

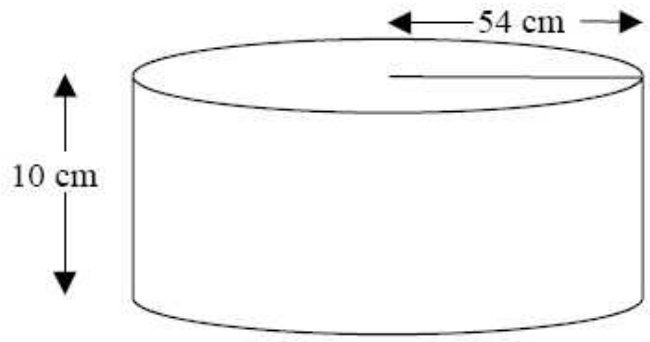


Diagram **NOT** accurately drawn

The diagram shows a solid cylinder.
The radius of the cylinder is 54 cm.
The height of the cylinder is 10 cm.

(a) Calculate the curved surface area of the cylinder.
Give your answer correct to three significant figures.

21.

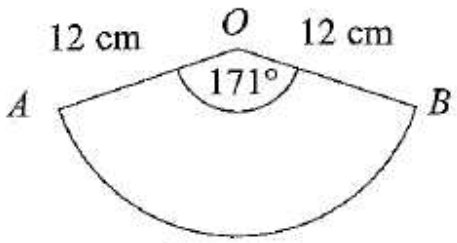
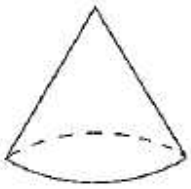


Diagram **NOT** accurately drawn

The diagram shows a sector OAB of a circle centre O.
The radius of the circle is 12 cm.
Angle $AOB = 171°$.

(a) Calculate the area of the sector AOB.
Give your answer correct to 3 significant figures.

..... cm^2
(3)



OA and OB are joined to make a cone.

(b) Calculate the vertical height, in centimetres, of the cone.
Give your answer correct to 3 significant figures.

This is tricky – only attempt if you are up for a challenge!

..... cm
(6)