

15th May



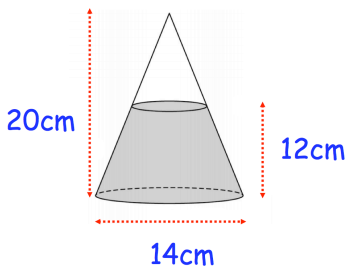
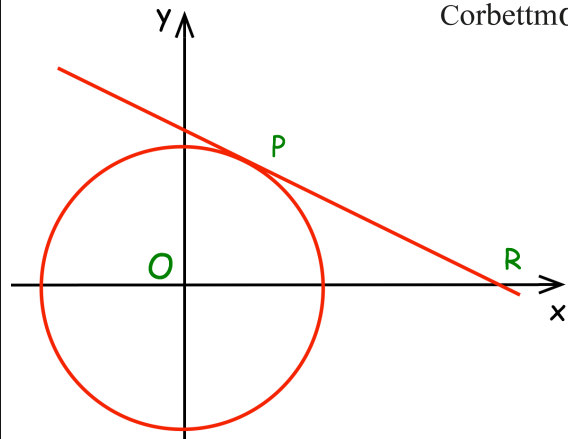
Corbettmaths

The diagram shows the circle $x^2 + y^2 = 17$

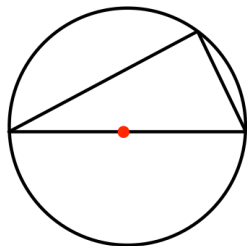
P lies on the circle and has x-coordinate 1.

The tangent at P intersects the x-axis at R.

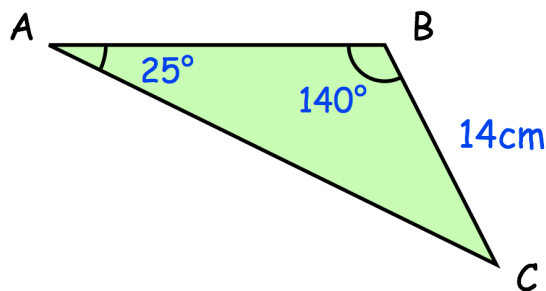
Work out the coordinates of R



Find the volume of liquid in the container



Prove that the angle in a semi-circle is always 90°



All values are correct to 2 significant figures.
Calculate the upper bound of AC.