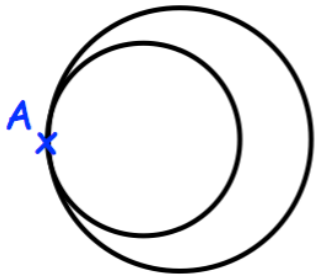
February 7th

A is a point on both circles. The smaller circle is inside the larger circle.

The area between the circles is $20cm^2$

The radii differ by 2cm, find the radius of the smaller circle in terms of π.



Corbett maths

Radius of small circle = r therefore radius of large circle = r+2

Difference in area : $\pi(r + 2)^2 - \pi r^2 = 20$

Hence $\pi(r^2 + 4r + 4 - r^2) = 20$

Therefore $4r + 4 = 20/\pi$

So **$r = 5/\pi - 1$**