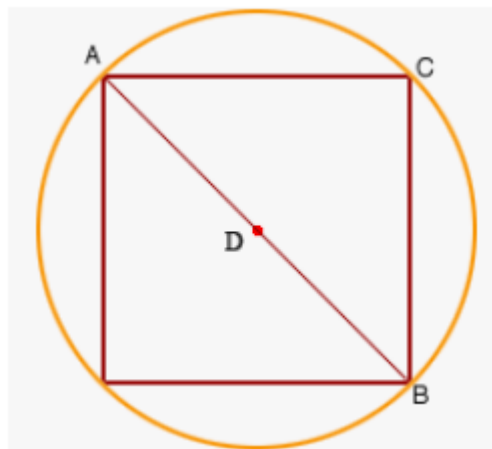


March 23rd

A square of side length 5cm is inscribed in a circle.

Find the area of the circle.



$$AC = CB = 5$$

Using Pythagoras gives

$$AB^2 = 5^2 + 5^2 = 50$$

Hence

$$AB = \sqrt{50} = 5\sqrt{2}$$

$$\text{Radius} = \frac{5}{2}\sqrt{2}$$

Therefore area =

$$\pi \times r^2 = \mathbf{12.5\pi \text{ cm}^2 \approx 39.3\text{cm}^2}$$