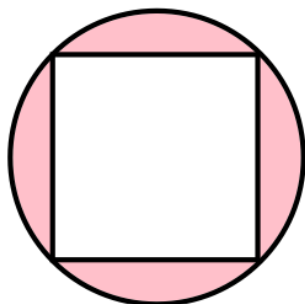


October 30th

A square is inscribed in a circle of radius 2cm.

Find the shaded area.



$$\text{Circle area} = \pi \times 2^2 = 4\pi$$

$$\text{Area of square} = 4^2 \div 2 = 8$$

(using the fact that the area of a square is $\frac{1}{2}$ of the square of the diagonals)

Therefore shaded area is **$4\pi - 8 \text{ cm}^2$**