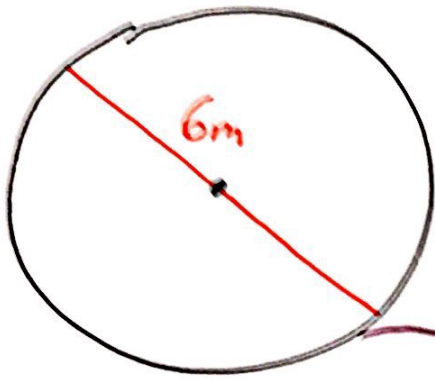


10-7 Notebook Questions

1)



Find the area of each circle

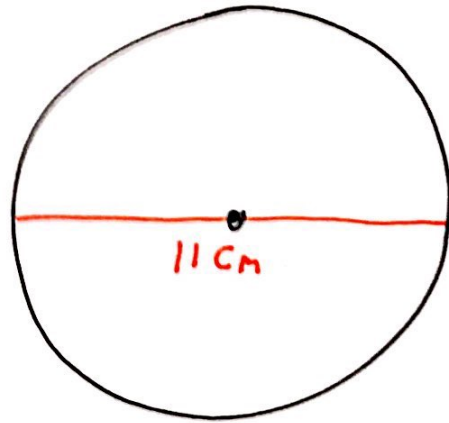


$$r = \frac{1}{2} d$$

$$\text{So, } r = \frac{1}{2}(6) \\ = 3$$

$$A = \pi r^2$$

$$A = (3)^2 \pi \\ = 9\pi \text{ m}^2$$

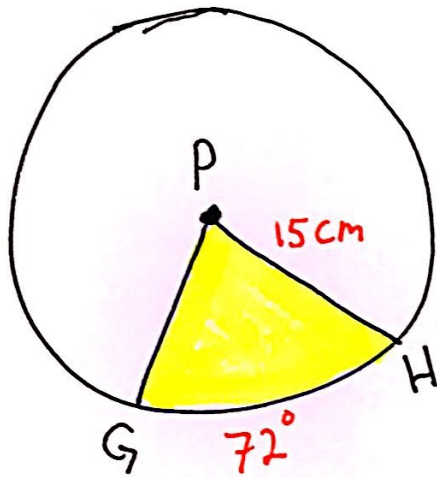


$$r = \frac{1}{2} 11 = \frac{11}{2} \text{ or } 5.5$$

$$A = \left(\frac{11}{2}\right)^2 \pi = \boxed{\frac{121}{4} \pi \text{ cm}^2}$$

$$\text{or} \\ A = (5.5)^2 \pi = \boxed{30.25 \pi \text{ cm}^2}$$

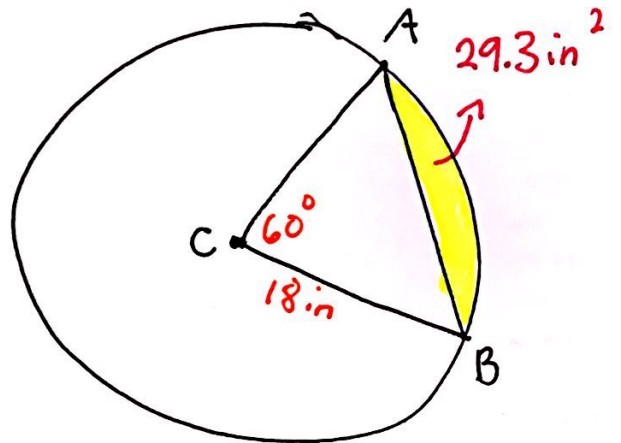
2) Find area of Shaded region.



$$A_{\text{Sector}} = \frac{n \text{ of } \widehat{GH}}{360} \cdot \pi(r)^2$$

$$\begin{aligned} \text{So } A_{\text{Sector}} &= \frac{72^\circ}{360} \cdot \pi(15)^2 \\ &= \frac{1}{5} (225) \pi \text{ cm}^2 \\ &= 45\pi \text{ cm}^2 \end{aligned}$$

3) Find the area of the Shaded Region.



$$\text{Area } \triangle ABC = \frac{1}{2} (CB)(CA) \sin(\angle C)$$

$$\text{So, } A_{\triangle ABC} = \frac{1}{2} (18)(18) \sin(60^\circ)$$

use calc. write 4-5 Decimal places

$$A_{\triangle ABC} = 140.29612 \leftarrow \text{Rounded}$$

Area of Sector ACB

$$A_{\text{Sector}} = \frac{60^\circ}{360} \cdot (18)^2 \pi$$

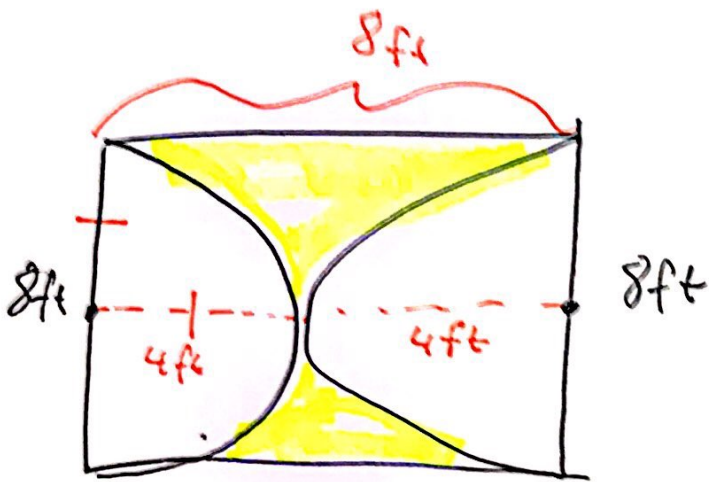
Here also.

$$A_{\text{Sector}} = 169.64600 \leftarrow \text{Rounded}$$

Area of Shaded region is equal to:

$$(A_{\text{Sector}}) - (A_{\text{triangle}})$$

$$\text{So, } 169.6400 - 140.29612 = \boxed{29.3 \text{ in}^2}$$



The figure is a Square with 2 Half circles.
 So, what we want is the Area of the square
 minus the Area of the full circle.

$$\text{So } A_{\text{square}} = L \times W = 8 \times 8 = 64 \text{ ft}^2$$

$$\text{Area of circle} = \pi (r)^2 = (4)^2 \pi = 16\pi \text{ ft}^2$$

So,

$$\text{Area of shaded region} = 64 \text{ ft}^2 - 16\pi \text{ ft}^2$$

use calc.

$$= 13.7 \text{ ft}^2$$