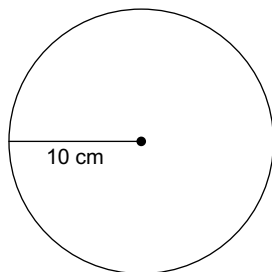


4.6 - Arc Length & Area of a Sector

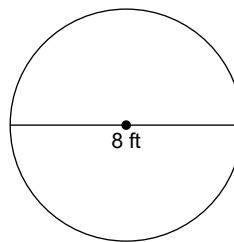
Find the circumference of each circle.

1)



20π cm

2)



8π ft

Find the radius of each circle.

3) circumference = 8π mi

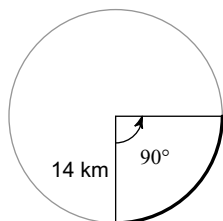
4 mi

4) circumference = 18π cm

9 cm

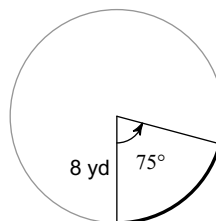
Find the length of each arc.

5)



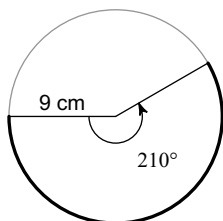
7π km

6)



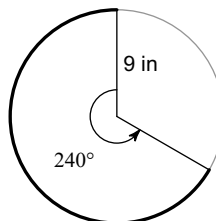
$\frac{10\pi}{3}$ yd

7)



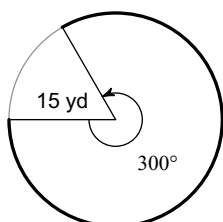
$\frac{21\pi}{2}$ cm

8)



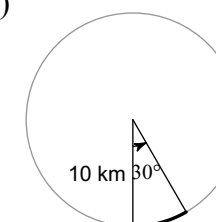
12π in

9)



25π yd

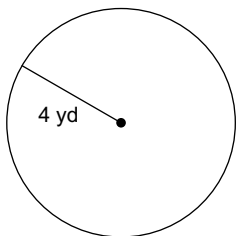
10)



$\frac{5\pi}{3}$ km

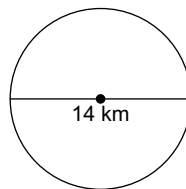
Find the area of each.

11)



$$16\pi \text{ yd}^2$$

12)



$$49\pi \text{ km}^2$$

Find the radius of each circle.

13) area = $49\pi \text{ mi}^2$

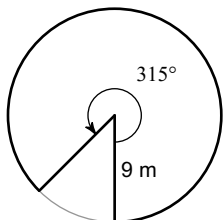
$$7 \text{ mi}$$

14) area = $16\pi \text{ in}^2$

$$4 \text{ in}$$

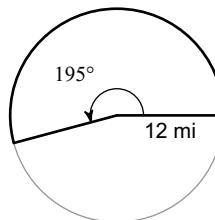
Find the area of each sector.

15)



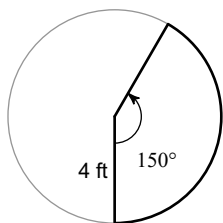
$$\frac{567\pi}{8} \text{ m}^2$$

16)



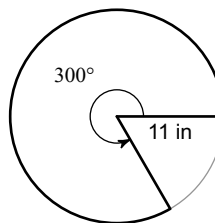
$$78\pi \text{ mi}^2$$

17)



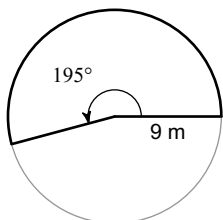
$$\frac{20\pi}{3} \text{ ft}^2$$

18)



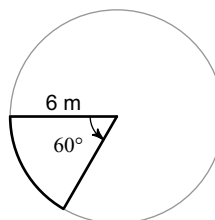
$$\frac{605\pi}{6} \text{ in}^2$$

19)



$$\frac{351\pi}{8} \text{ m}^2$$

20)



$$6\pi \text{ m}^2$$