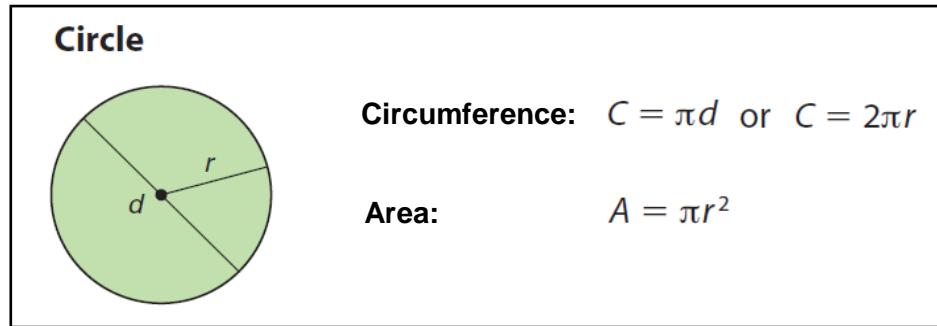
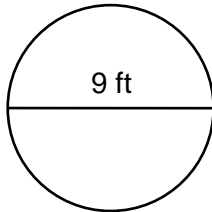


Circumference and Area of a Circle

1. Determine the circumference of each given circle.

(a)

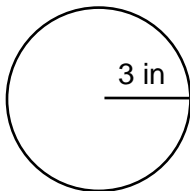


When **diameter is given**, use $C = \pi d$

$$\begin{aligned} \text{Circumference} &= \pi d \\ &= (\pi)(9) \\ &= 28.27 \end{aligned}$$

The circumference is 28.27 ft.

(b)

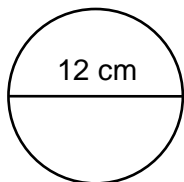


When **radius is given**, use $C = 2\pi r$

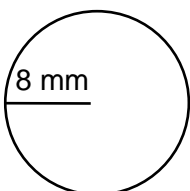
$$\begin{aligned} \text{Circumference} &= 2\pi r \\ &= (2)(\pi)(3) \\ &= 18.85 \end{aligned}$$

The circumference is 18.85 in.

(c)

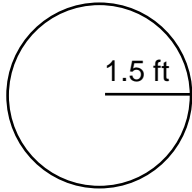


(d)



2. Determine the area of each given circle.**Note:** When the diameter is given, divide the diameter by 2 to find the radius.

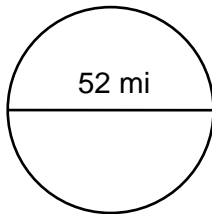
(a)



$$\begin{aligned}\text{Area} &= \pi r^2 \\ &= (\pi)(1.5)^2 \text{ or } (\pi)(1.5)(1.5) \\ &= 7.07\end{aligned}$$

The area is 7.07 ft².

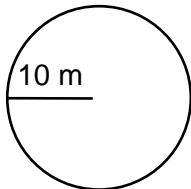
(b)



$$\begin{aligned}\text{Radius} &= \frac{52}{2} \\ &= 26 \\ \text{Area} &= \pi r^2 \\ &= (\pi)(26)^2 \text{ or } (\pi)(26)(26) \\ &= 2123.72\end{aligned}$$

The area is 2123.72 mi².

(c)

**3. Determine the area and circumference of the given circle.**