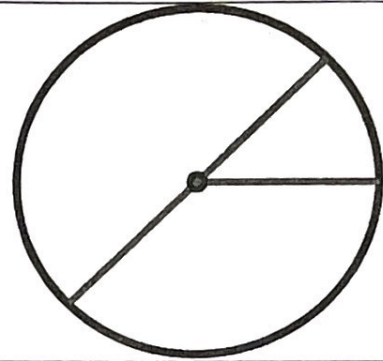


Notes: Area and Circumference of Circles

Parts of a Circle

- Radius : Distance from the center to any point on the circle.
- Diameter – distance across a circle through the center.
 - Equal to 2 times the radius.

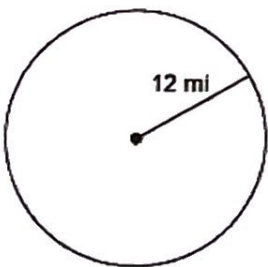


Formulas for Circles

- Pi – The ratio of a circle's circumference to its diameter. (Approximately 3.14)
- Circumference – distance around a circle
 - $C = \pi d$ or $2\pi r$
- Area – the measure of the space or region enclosed inside the circle
 - $A = \pi r^2$

Example 1:

Find the circumference and area of the circle:



$$C = 2 \cdot (3.14) \cdot 12$$

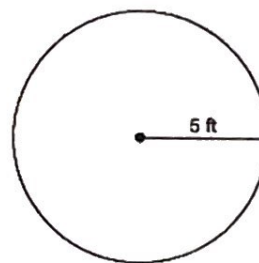
$$C = 75.36 \text{ mi}$$

$$A = 3.14(12^2)$$

$$A = 452.16 \text{ mi}^2$$

You Try:

Find the circumference and area of the circle:



$$C = 2(3.14) \cdot 5$$

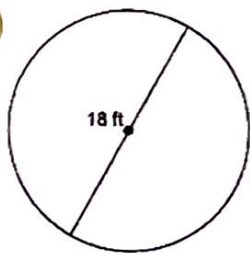
$$C = 31.4 \text{ ft}$$

$$A = 3.14(5^2)$$

$$A = 78.5 \text{ ft}^2$$

Example 2:

Find the circumference and area of the circle:



$$C = 3.14 \cdot 18$$

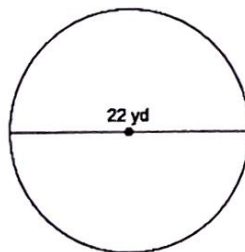
$$C = 56.52 \text{ ft}$$

$$A = 3.14 \cdot 9^2$$

$$A = 254.34 \text{ ft}^2$$

You Try:

Find the circumference and area of the circle:



$$C = 3.14(22)$$

$$C = 69.08 \text{ yd}$$

$$A = 3.14(11^2)$$

$$A = 379.94 \text{ yd}^2$$

You Try:

Find the circumference and area of the circle:



$$C = 2 \cdot 3.14 \cdot 8.6$$

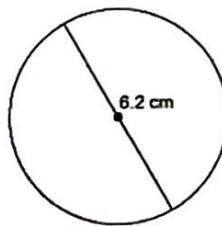
$$C = 54.008 \text{ in}$$

$$A = 3.14 \cdot 8.6^2$$

$$A = 232.2344 \text{ in}^2$$

You Try:

Find the circumference and area of the circle:



$$C = 3.14 \cdot 6.2$$

$$C = 19.468 \text{ cm}$$

$$A = 3.14 \cdot 3.1^2$$

$$A = 30.1754 \text{ cm}^2$$