

# Lesson 11.6 Area of Circles

The area of a circle is found by using the formula  $A = \pi \times r \times r$ . Remember,  $\pi$  can be expressed as  $3\frac{1}{7}$  or as 3.14. If you know the diameter of a circle, divide by 2 to find the radius.

What is the area if  $r = 6$ ?

$$A = \frac{22}{7}(6)(6)$$

$$A = 113\frac{1}{7} \text{ square units}$$

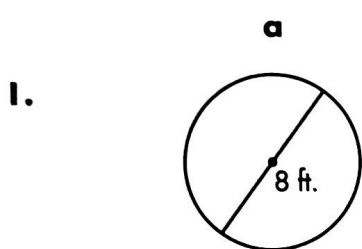
What is the area if  $d = 8$ ?

$$A = 3.14 \times \frac{8}{2} \times \frac{8}{2}$$

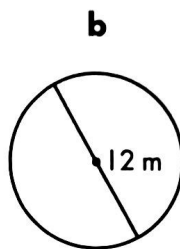
$$A = 3.14 \times 4 \times 4$$

$$A = 50.24 \text{ square units}$$

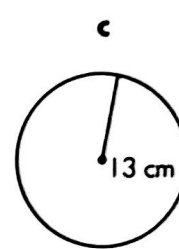
Find the area of each circle below. Use 3.14 for pi. Round your answer to the nearest tenth.



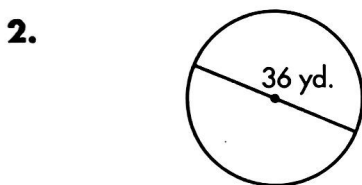
\_\_\_\_\_ square feet



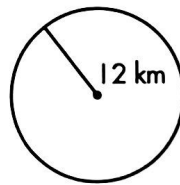
\_\_\_\_\_ square meters



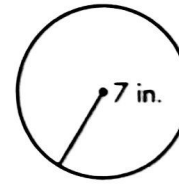
\_\_\_\_\_ square centimeters



\_\_\_\_\_ square yards



\_\_\_\_\_ square kilometers



\_\_\_\_\_ square inches

Complete the table. Use 3.14 for pi. Round your answer to the nearest tenth.

Diameter	Radius	Area
3. _____ inches	3 inches	_____ square inches
4. 18 feet	_____ feet	_____ square feet
5. 17 meters	_____ meters	_____ square meters
6. _____ centimeters	32 centimeters	_____ square centimeters
7. 30 kilometers	_____ kilometers	_____ square kilometers
8. _____ yards	6 yards	_____ square yards