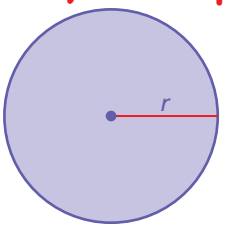
REVIEW: Areas of Circles

Name _____

Key Concept and Vocabulary



$A = \pi r^2$

$\pi \approx 3.14$

$\pi \approx \frac{22}{7}$

Visual Model

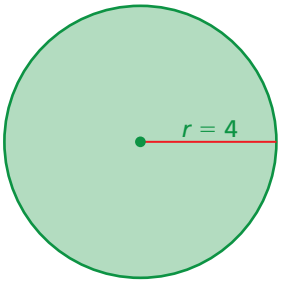
Area of a Circle:

$A = \pi r^2$

$= \pi(4)^2$

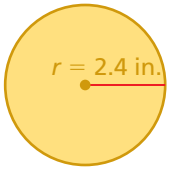
$\approx 3.14(16)$

$\approx 50.2 \text{ units}^2$



Skill Examples

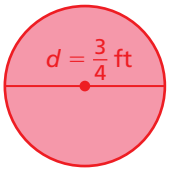
1.



$A = \pi(2.4)^2$

$\approx 18.1 \text{ in.}^2$

2.



$A = \pi\left(\frac{3}{8}\right)^2$

$\approx 0.4 \text{ ft}^2$

Application Example

3. Find the area of a dime.

$A = \pi(0.9)^2$

≈ 2.5

1.8 cm

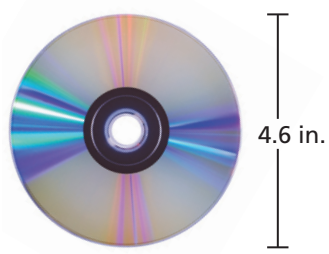
∴ The area is about 2.5 square centimeters.

PRACTICE MAKES *PURR*-FECT®

Check your answers at BigIdeasMath.com.

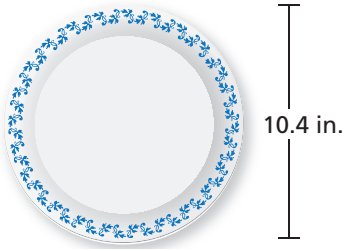
Find the area. Round your answer to the nearest tenth. Use 3.14 for π.

4.



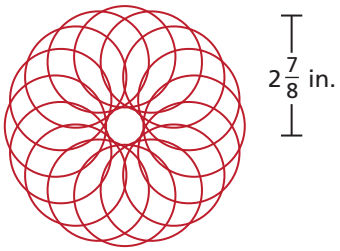
Area ≈ 16.6 in.^{2}

5.



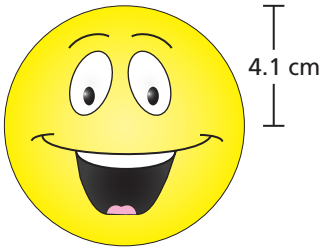
Area ≈ 84.9 in.^{2}

6.



Area ≈ 26.0 in.^{2}

7.

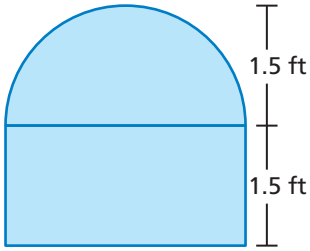


Area ≈ 52.8 cm^2

8.

Area ≈ 3.5 ft^2

9.



Area ≈ 8.0 ft^2

10. **BASKETBALL** The center circle is identical to the circle formed by the free throw line. Find the area of the center circle. Use 3.14 for π. about 113.0 ft^2

11. **BASKETBALL** Find the area of the semicircular free throw region on the basketball court. Use 3.14 for π.

about 56.5 ft^2