Homework
Textbook pages 336 & 337
1, 2, 6-13, 15

Area of a Circle
8.3

Key Idea

Area of a Circle

Words The area A of a circle is the product of π and the square of the radius.

Algebra $A = \pi r^2$

EXAMPLE 1 Finding Areas of Circles

Find the area of the circle. Use 3.14 or $\dfrac{22}{7}$ for π.

a.

9 mm

b

3 in.

$A = 3.14(9)^2$

$A = 3.14(81)$

$A = 254.34 mm^2$

$A = 3.14(1.5)^2$

$A = 3.14(2.25)$

$A = 7.065 in^2$

$$A = 113.04 \; ft^2$$

2. Find the area of a circle with a diameter of 28 meters.

$$A = 615.44 \; m^2$$

Key Idea

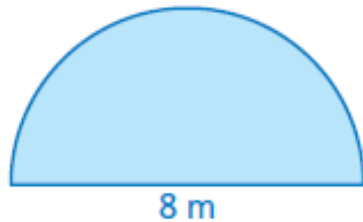Finding the Area of a Semi-Circle.

$$A = \frac{\pi r^2}{2} \quad or \quad \frac{1}{2}\pi r^2$$
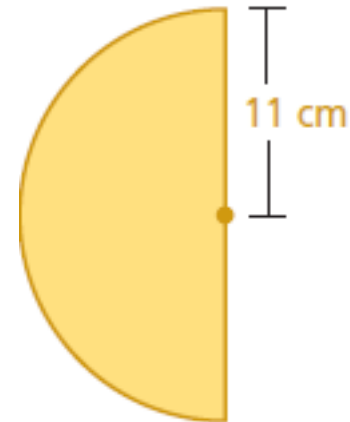
Example 2

a.

8 m

b

11 cm

$$A = \frac{3.14(4)^2}{2}$$
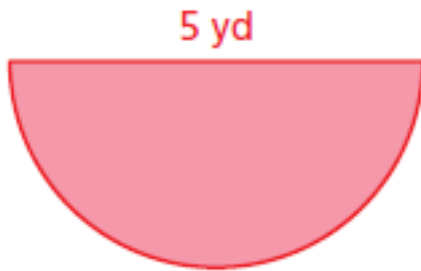
$$A = \frac{3.14(16)}{2}$$

$$A = \frac{50.24}{2}$$

$$A = 25.12m^2$$

$$A = \frac{3.14(11)^2}{2}$$

$$A = \frac{3.14(121)}{2}$$

$$A = \frac{379.94}{2} = 189.97cm^2$$

Find the area of the semicircle.

5 yd

$A = 9.8125 \ yd^2$