

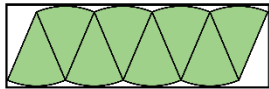
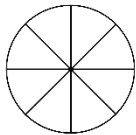
# Lesson 6 Assessment

## Estimating and Determining the Area of a Circle

### Estimating and Determining the Area of a Circle

Understands the relationships between radius, diameter, and area of a circle

I can cut the circle into equal sections and rearrange them into a rectangle. Half the circumference, or  $\pi r$ , is the length and  $r$  is the width.



Calculates the area of a circle, given its radius

What is the area of a circle with radius of 2 cm?

I used the area formula for a circle.  
 $3.14 \times 2^2 = 12.56$   
 The area is  $12.56 \text{ cm}^2$ .

Calculates the area of a circle, given its diameter

What is the area of a circle with diameter of 6 cm?

I found the radius first and then the area.  
 $6 \div 2 = 3$   
 The radius is 3 cm.  
 $3.14 \times 3^2 = 28.26$   
 The area is  $28.26 \text{ cm}^2$ .

Uses circle area formula to solve problems

Determine the area of a pizza with a circumference of 94.2 cm.

I found the diameter first, then the radius, and finally the area.  
 $d = C \div \pi = 94.2 \div 3.14$   
 $= 30$   
 The diameter is 30 cm.  
 $30 \div 2 = 15$   
 The radius is 15 cm.  
 $A = \pi r^2 = 3.14 \times 15^2$   
 $= 706.5$   
 The area is  $706.5 \text{ cm}^2$ .

### Observations/Documentation