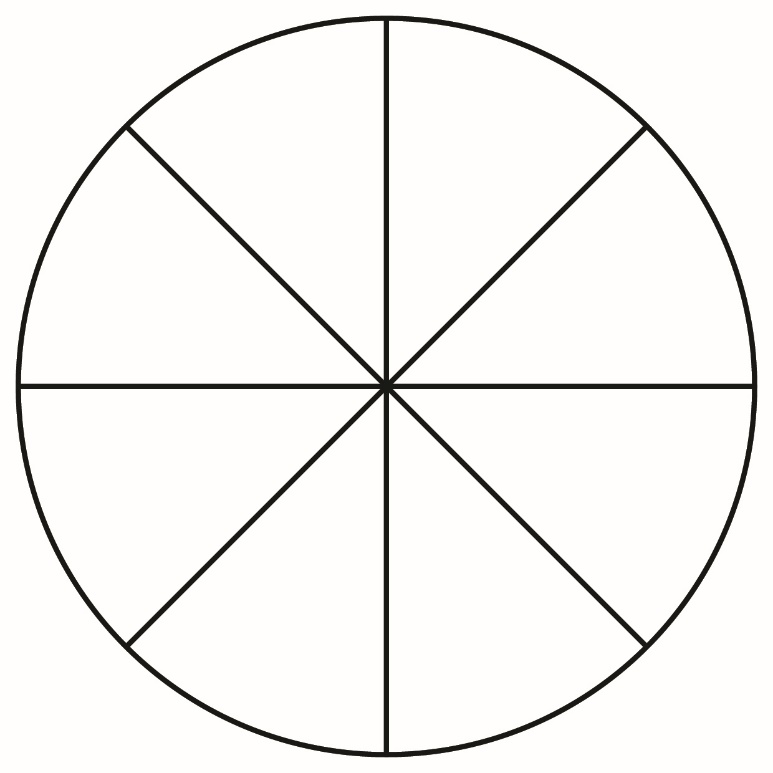
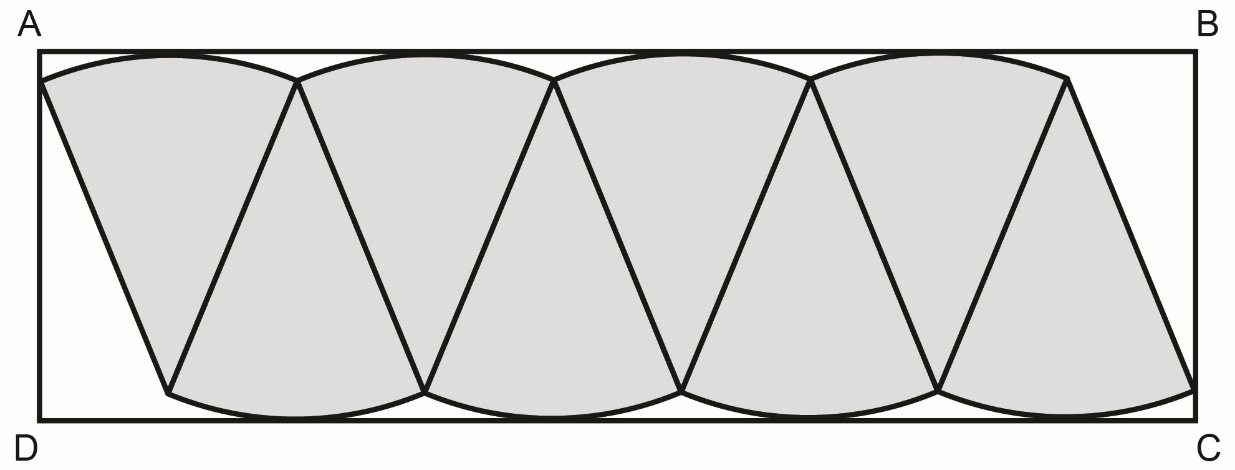
**Shape and Space**

**Unit 1 Line Master 8a**

Explore the Area of a Circle 2

1. Cut apart the sections of this circle.  
 ****

2. Arrange and glue the pieces inside the rectangle ABCD as shown.   
 

Explore the Area of a Circle 2 (cont’d)

**Shape and Space**

**Unit 1 Line Master 8b**



3. Determine the area of rectangle ABCD to approximate the area

of the circle.

4. The area of a rectangle relates to the measures of a circle:

Area of rectangle ABCD = AB × BC

= π*r* × *r*

= π*r*2

a) The length of the rectangle, AB, is approximately half   
of the circumference, or π*r*. Explain why.

b) Why is the width of the rectangle, BC, the same as   
the radius, *r*?