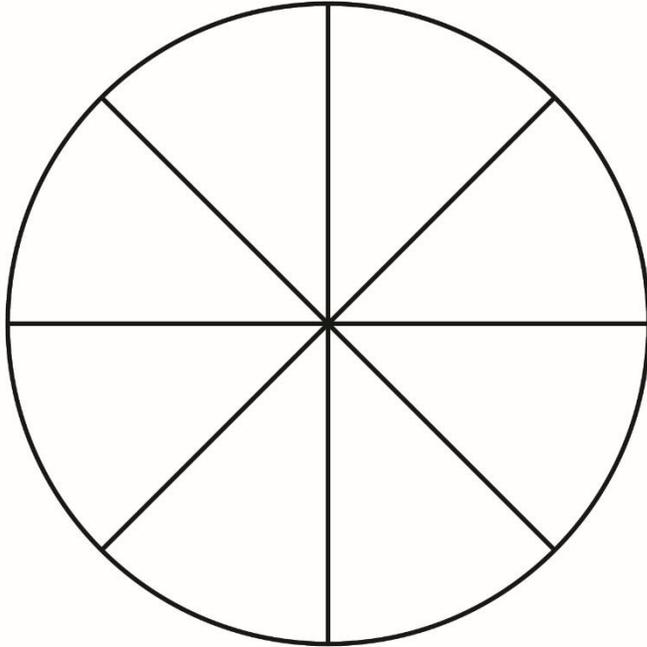
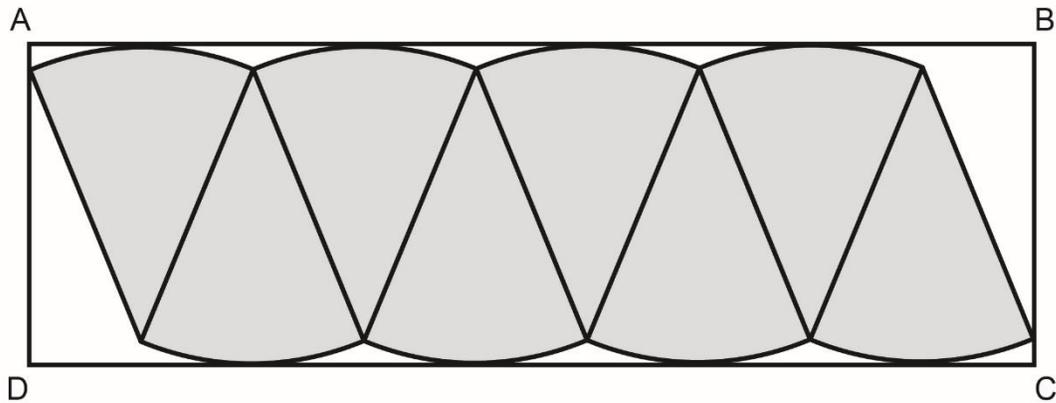


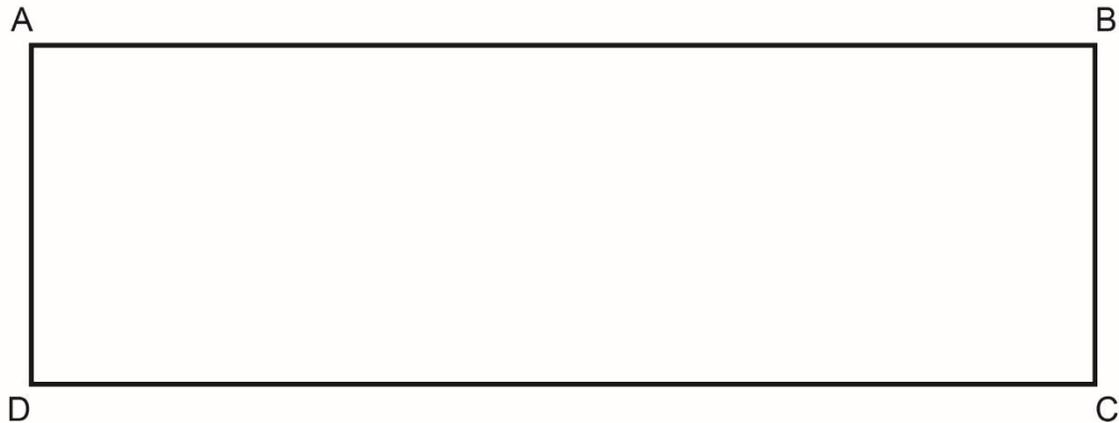
Explore the Area of a Circle 2

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)

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 = $AB \times BC$
 $= \pi r \times r$
 $= \pi r^2$
 - a) The length of the rectangle, AB, is approximately half of the circumference, or πr . Explain why.
 - b) Why is the width of the rectangle, BC, the same as the radius, r ?