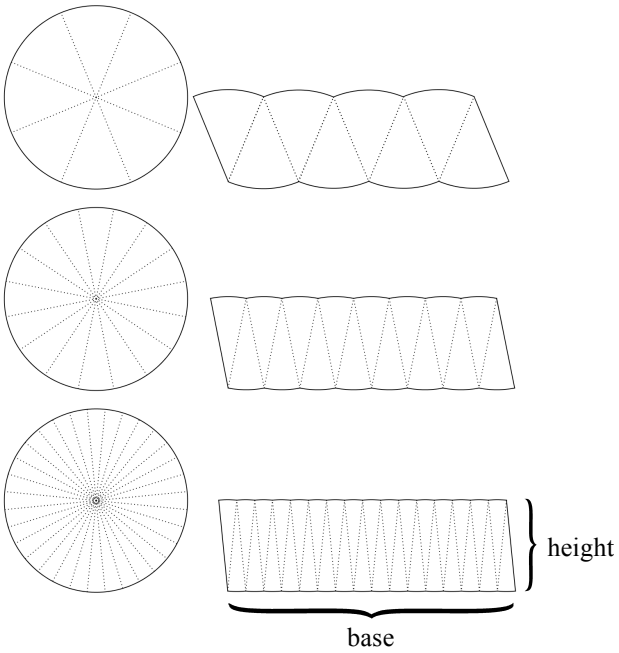
Name _____ Date_____

The area of a circle can be divided into equal pieces called sectors that can be rearranged to make a new shape with the same area. As the number of sectors increases, the sectors get smaller and smaller, and the new shape comes closer and closer to becoming a rectangle:




1. The height, $h$, of the rectangular shape is the same as the __?__ of the original circle.

   $h =$ _____

2. The base, $b$, of the rectangular shape is what fraction of the circumference, $C$, of the original circle?

   $b =$ _____ $\times C$

3. Write an equation for the area of the rectangular shape using your representations from #1 and #2.

4. Explain what your equation from #3 tells you about the relationship between the area and the circumference of a circle.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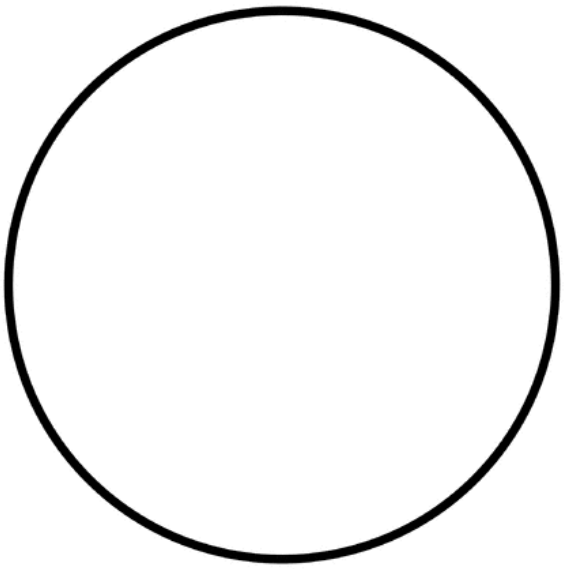
Name _____ Date_____

1. State the formula for finding the area of a circle.

2. Explain what each symbol in the formula represents.

3. On the diagram, draw and label the dimensions represented by the variable(s) in the formula.



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Name _____ Date_____

The London Eye is a giant Ferris wheel on the south bank of the river Thames in London, England. The height of the entire structure, including the support frame, is 135 meters. The wheel has a diameter of 120 meters. Find the circumference of the wheel. Show your work or explain how you found your answer.

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