

6.8 A: The student is expected to estimate measurements (including circumference) and evaluate reasonableness of results.

7.9 A: The student is expected to estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes.

# MOON PIES



1. Using unmarked string, try to figure out how many times the distance across a moon pie will fit around its perimeter.

- Do you think the relationship you found is true for every circle in the universe? \_\_\_\_\_
- What do we call the “**distance across the disc**” and its “**perimeter**”?

\_\_\_\_\_ and  
\_\_\_\_\_

2. Use the vinyl measuring tape and measure the diameter and the circumference of the moon pie.

Diameter: \_\_\_\_\_ Circumference:  
\_\_\_\_\_

You may unwrap the moon pie and eat it now!  
Yum, Yum!!!!!!!!!!!!!!



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3. Working with a partner, measure the circumference and diameter of each of the provided objects to the nearest millimeter. Record your results in the chart below.

<b>Object Measured</b>	<b>Circumference</b>	<b>Diameter</b>	<b><u>Circumference</u> Diameter</b>
<b>Average =</b>			

4. What do you notice about the relationship between the circumference and diameter of a set of circles?
5. Use a calculator to figure out how many diameters fit into each circumference. Round these numbers to the hundredths place.

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6. The relationship between circumference and diameter is called **a ratio.**

7. Any diameter fits into the circumference a little more than \_\_\_\_\_ times.

8. A more exact number for this ratio is called pi ( $\pi$ ), which is rounded for common use to \_\_\_\_\_.

9. How could we figure out the diameter if we know the circumference?

10. How could we get the circumference if we know the diameter?