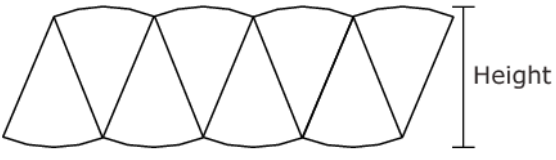


Geometry EOC Item Specifications  
Florida Standards Assessments

MAFS.912.G-GMD.1.1	Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. <i>Use dissection arguments, Cavalieri’s principle, and informal limit arguments.</i>
Item Types	<p>Editing Task Choice – May require choosing a statement in an informal argument.</p> <p>GRID – May require sequencing an informal argument.</p> <p>Hot Text – May require selecting text.</p> <p>Multiselect – May require identifying the steps of an informal argument from a stem animation.</p> <p>Open Response – May require writing an informal argument or explaining how to derive a formula.</p>
Clarification	Students will give an informal argument for the formulas for the circumference of a circle; the area of a circle; or the volume of a cylinder, a pyramid, and a cone.
Assessment Limits	<p>Informal arguments are limited to dissection arguments, Cavalieri’s principle, and informal limit arguments.</p> <p>Items may require the student to recall the formula for the circumference and area of a circle.</p>
Stimulus Attributes	<p>Items may be set in a real-world or mathematical context.</p> <p>Items may ask the student to analyze an informal argument to determine mathematical accuracy.</p>
Response Attribute	Items may require the student to use or choose the correct unit of measure.
Calculator	Neutral

Sample Item	Item Type
Multiselect	
<p>Alejandro cut a circle with circumference <math>C</math> and radius <math>r</math> into 8 congruent sectors and used them to make the figure shown.</p>	
	
<p>Alejandro noticed that the figure was very close to the shape of a parallelogram.</p>	
<p>Select all the statements that apply to the figure.</p>	
<ul style="list-style-type: none"><li><input type="checkbox"/> The height of the parallelogram is approximately equal to the circle's diameter.</li><li><input type="checkbox"/> The area of the parallelogram is approximately <math>\frac{1}{2}Cr</math>.</li><li><input type="checkbox"/> The length of the parallelogram is approximately equal to the circle's circumference.</li><li><input type="checkbox"/> The radius of the circle is approximately equal to the height of the parallelogram.</li><li><input type="checkbox"/> The area of the parallelogram is approximately <math>8\left(\frac{45}{360}\pi r^2\right)</math>.</li></ul>	