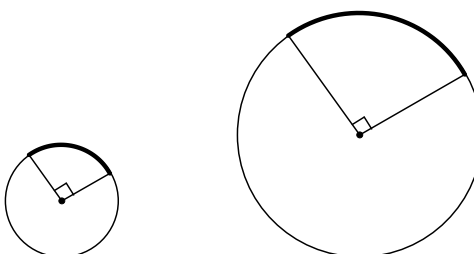
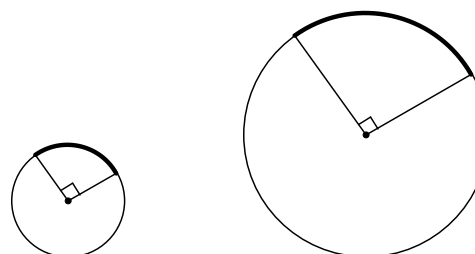
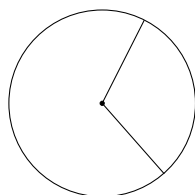


Unit 4: Circles and Arc Length

Name: _____

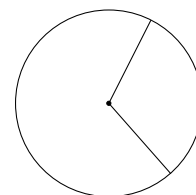
Period: _____ Date: _____

<p style="text-align: center;">Earlier this year: <u>MEASURE of an arc</u></p> <p style="text-align: center;">Compare the <u>measures</u> of these arcs</p> <div style="text-align: center; margin: 20px 0;">  </div> <p>Arc measure: units are _____</p>	<p style="text-align: center;">Now: <u>LENGTH of an arc</u></p> <p style="text-align: center;">Compare the <u>lengths</u> of these arcs</p> <div style="text-align: center; margin: 20px 0;">  </div> <p>Arc length: units are _____</p>
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The **length** of an arc is part of the circle's

_____.



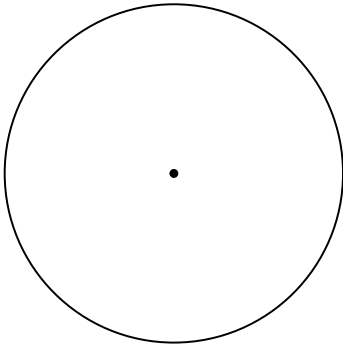
★ **Formula for** _____

★

★

★

<p>Find the circumference of a circle with radius 5 ft.</p> <p>Exact _____ (in terms of π)</p> <p>Approx. _____ (2 dec. places)</p>	<p>Find the circumference of a circle with diameter 8 cm.</p> <p>Exact _____ (in terms of π)</p> <p>Approx. _____ (2 dec. places)</p>	<p>If the circumference of a circle is 43 inches, what is its radius?</p> <p>Approx. _____ (2 dec. places)</p>
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Radius = 20 cm

Divide this circle into 8 congruent sectors. Shade 3 adjacent sectors.

Circle's full circumference =

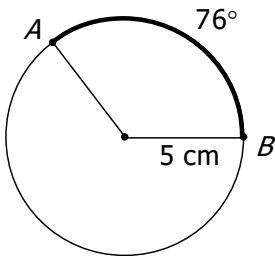
Fraction that is shaded =

Central angle of shaded part =

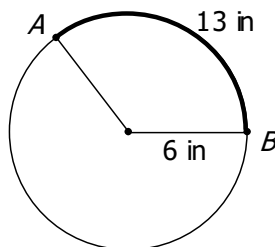
Arc length along shaded part =

Formulas for <u>ARC LENGTH</u>:	
<u>option 1</u>	<u>option 2</u>
★	
★	
★	
★	
★	

Find the bold arc's length:



Find the bold arc's measure:



Find the circle's radius:

