

# Geometry Notes

## Unit 4: Circles and Segment Area

Name: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

★ **Formula for AREA OF A CIRCLE:**

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<p>Find the area of a circle with radius 5 ft.</p> <p>Exact _____ (in terms of <math>\pi</math>)</p> <p>Approx. _____ (2 dec. places)</p>	<p>Find the area of a circle with diameter 8 cm.</p> <p>Exact _____ (in terms of <math>\pi</math>)</p> <p>Approx. _____ (2 dec. places)</p>	<p>If the area of a circle is <math>43 \text{ in}^2</math>, what is its radius?</p> <p>Approx. _____ (2 dec. places)</p>
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★ **Formula for AREA OF A SECTOR:**

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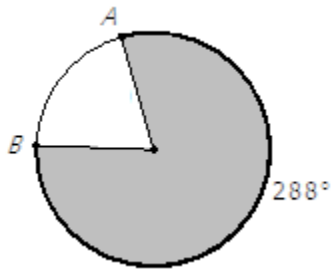
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Find the area of the shaded sector:

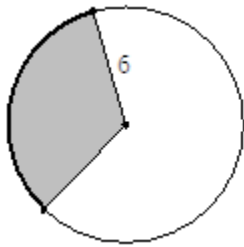


The diagram shows a circle with a shaded sector. The radius of the circle is labeled as 5 cm. The central angle of the shaded sector is labeled as  $76^\circ$ . The points A and B are marked on the circle's circumference.

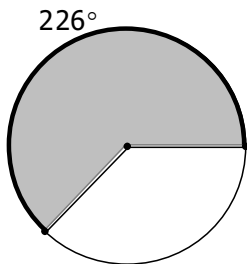
Find the area of the shaded sector if the radius is 10 ft.



If the area of the shaded sector is  $15\pi$  square inches, what is the measure of the sector's arc?



If the area of the shaded sector is 303 square centimeters, what is the radius of the circle (to the nearest hundredth)?



The length of the shaded sector's arc is 22.3 inches. Find the measure of the bold arc (to the nearest hundredth) and the area of the shaded sector (to the nearest hundredth).

