**Part 1: Exploring Inscribe Angles**

1. Draw central angle $∠AOB$ and measure it with a protractor. $m∠AOB=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$

What is the measure of the intercepted arc $\hat{AB}$? $m\hat{AB}=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$
2. Now draw 4 inscribed angles with vertices on the ***major arc*** $\hat{AB}$, and endpoints at *A* and *B*

Measure these inscribed angles with a protractor.

What are the measurements of
these inscribed angles?

**Inscribed Angle Theorem:
The measure of an inscribed angle
is \_\_\_\_\_\_\_\_\_\_ the measure of
the intercepted arc.**
3. Draw diameter $\overbar{AB}$ on circle *P*.
4. Inscribe two angles with endpoints at
*A*  and *B*.
5. Measure these angles with a protractor.
What is their measure?
6. Inscribe a quadrilateral in circle *Q.* (All endpoints should be on the circle.)
7. Measure all four angles with a protractor

What do you notice about the opposite
angles in the quadrilateral?

**Inscribed Angle Corollaries:**

1. Two inscribed angles that intercept the same arc are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. An angle inscribed in a semicircle is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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3. The opposite angles of a quadrilateral inscribed in a circle are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 2: Chord-Tangent Angles**

1. Use your protractor to draw a tangent line through point *C*.
2. Measure the acute angle
between the tangent line and $\overbar{BC}$.
3. Measure $∠BRC$.
4. What is the measure of arc $\hat{BC}$?
5. How does the angle measure compare
 to the arc measure?

 **Theorem: The measure of an angle formed by a tangent and a chord is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the measure of the intercepted arc.**