Standard:
MCC9-12.G.C.2 Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.
Write in your own words
\[ m\angle A \]

![Diagram of a circle with a central angle of 158° and an inscribed angle at point A.]
\[
\text{\(m\angle BC\)}
\]
Corollary 12-4-2

<table>
<thead>
<tr>
<th>COROLLARY</th>
<th>HYPOTHESIS</th>
<th>CONCLUSION</th>
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</thead>
<tbody>
<tr>
<td>If inscribed angles of a circle intercept the same arc or are subtended by the same chord or arc, then the angles are congruent.</td>
<td></td>
<td>$\angle ACB \cong \angle ADB \cong \angle AEB$ (and $\angle CAE \cong \angle CBE$)</td>
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<tr>
<td>$\angle ACB$, $\angle ADB$, and $\angle AEB$ intercept $\overline{AB}$.</td>
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</table>

Write in your own words...
Name two pairs of congruent angles.
\[(2x + 11)\degree\]
\[(4x - 3)\degree\]
MCC9-12.G.C.3 Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.

Theorem 12.4.4

If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary.

Write in your own words