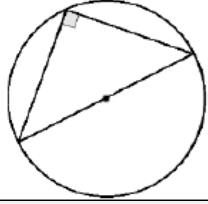
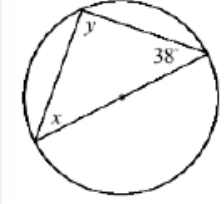
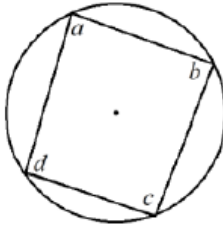
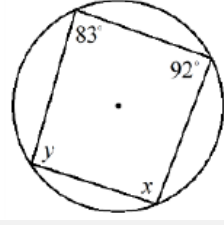
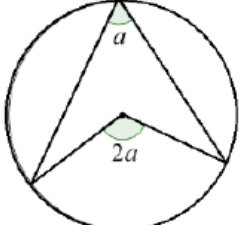
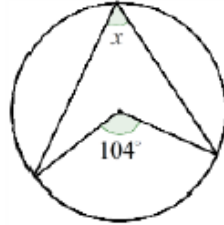
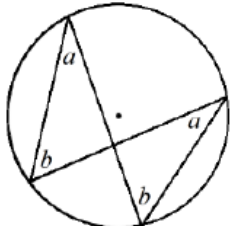
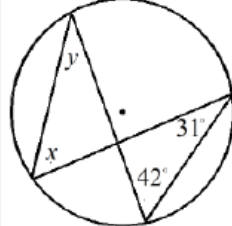
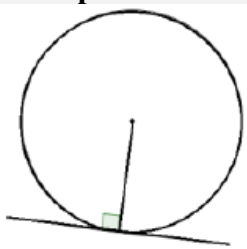
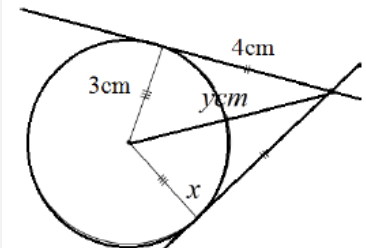
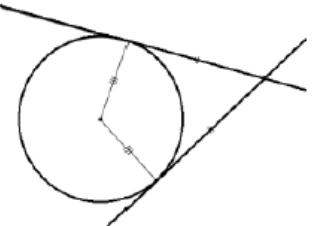
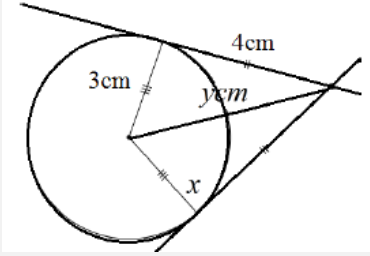
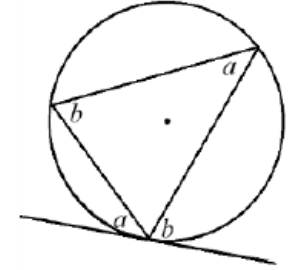
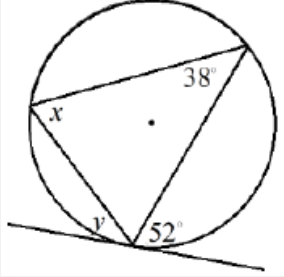


**Core Knowledge**

Topic/Skill	Definition/Tips	Example
Circle Theorem 1	<p><b>Angles in a semi-circle have a right angle at the circumference.</b></p> 	 <p><math>y = 90^\circ</math>  <math>x = 180 - 90 - 38 = 52^\circ</math></p>
Circle Theorem 2	<p><b>Opposite angles in a cyclic quadrilateral add up to <math>180^\circ</math>.</b></p>  <p><math>a + c = 180^\circ</math>  <math>b + d = 180^\circ</math></p>	 <p><math>x = 180 - 83 = 97^\circ</math>  <math>y = 180 - 92 = 88^\circ</math></p>
Circle Theorem 3	<p><b>The angle at the centre is twice the angle at the circumference.</b></p> 	 <p><math>x = 104 \div 2 = 52^\circ</math></p>
Circle Theorem 4	<p><b>Angles in the same segment are equal.</b></p> 	 <p><math>x = 42^\circ</math>  <math>y = 31^\circ</math></p>
Circle Theorem 5	<p><b>A tangent is perpendicular to the radius at the point of contact.</b></p> 	 <p><math>y = 5\text{cm}</math> (Pythagoras' Theorem)</p>

**Core Knowledge**

<p>Circle Theorem 6</p>	<p><b>Tangents from an external point at equal in length.</b></p> 	 <p><math>x = 90^\circ</math></p>
<p>Circle Theorem 7</p>	<p><b>Alternate Segment Theorem</b></p> 	 <p><math>x = 52^\circ</math> <math>y = 38^\circ</math></p>

Links to angles in parallel lines, proof