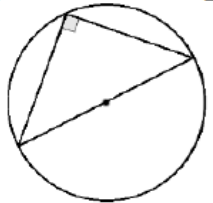
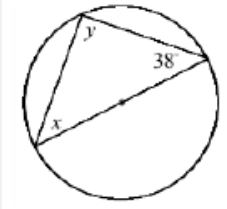
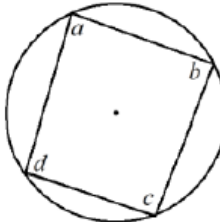
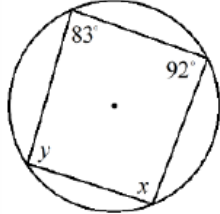
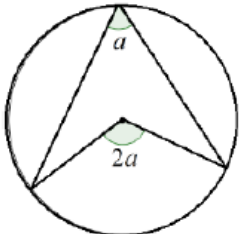
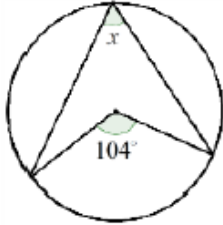
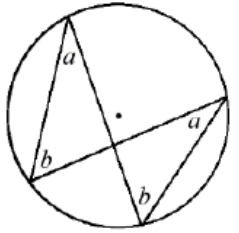
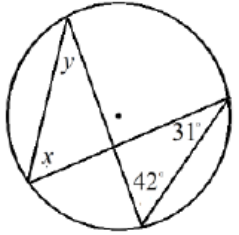
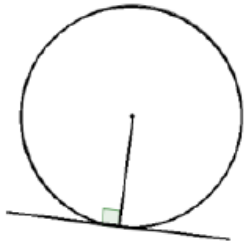
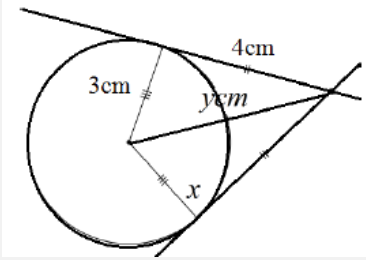
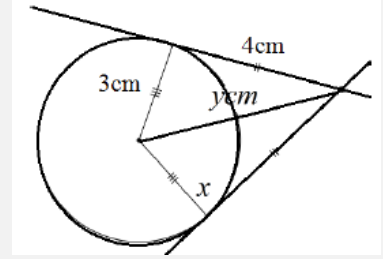
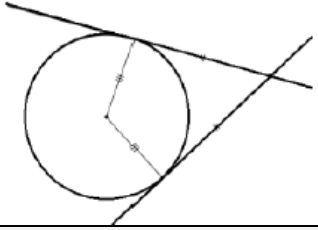


Topic: Circle Theorems

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

Circle
Theorem 6

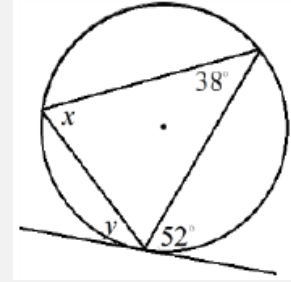
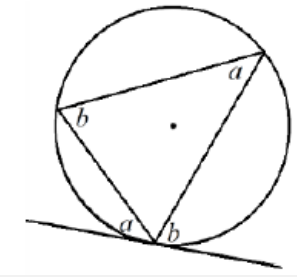
**Tangents from an external point at equal
in length.**



$$x = 90^\circ$$

Circle
Theorem 7

Alternate Segment Theorem



$$x = 52^\circ$$

$$y = 38^\circ$$