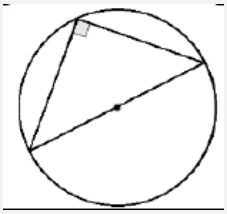
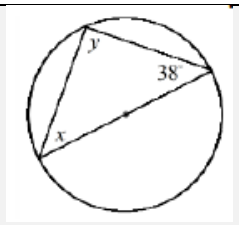
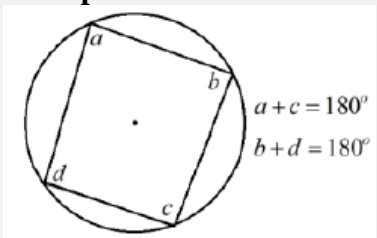
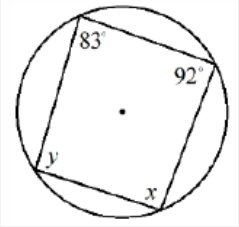
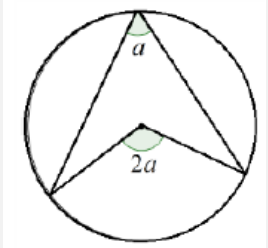
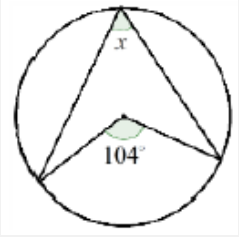
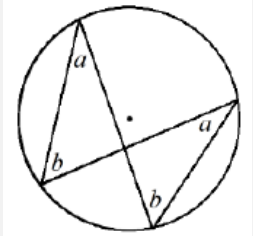
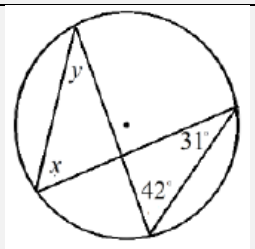
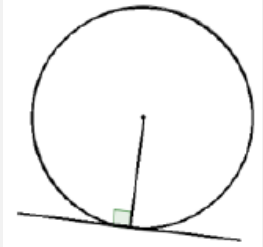
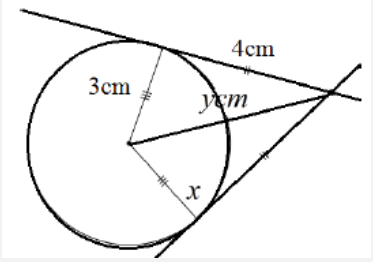
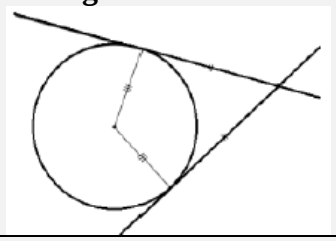
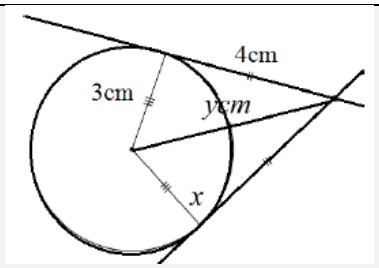
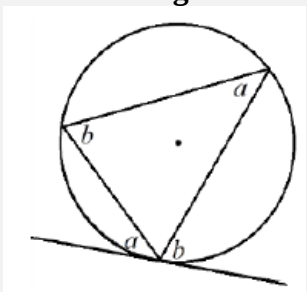
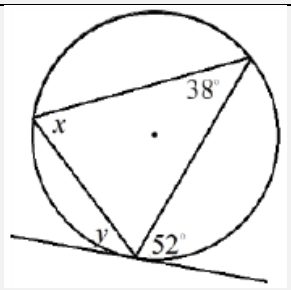
| Topic/Skill | Definition/Tips | Example |
|---|---|---|
| Circle Theorem 1 | **Angles in a semi-circle have a right angle at the circumference.**  |   $y = 90°$ $x = 180 - 90 - 38 = 52°$ |
| Circle Theorem 2 | **Opposite angles in a cyclic quadrilateral add up to 180°.**   |   $x = 180 - 83 = 97°$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

| | | |
|---|---|---|
| Circle Theorem 6 | **Tangents from an external point at equal in length.**<br>  |  <br>$x = 90°$ |
| Circle Theorem 7 | **Alternate Segment Theorem**<br>  |  <br>$x = 52°$<br>$y = 38°$ |