

Solutions

2.1 For the same chord and corresponding arc, centre angle=twice circumference angle:
 $100/2=50^\circ$.

2.2 Opposite cyclic angles sum to 180° , so $180-112=68^\circ$.

2.3 A radius and its tangent are perpendicular at contact: 90° .

3.1 False. A parallelogram with successive angles $60^\circ, 120^\circ, 60^\circ, 120^\circ$ has opposite sums 120° and 240° . The 180° theorem requires a cyclic quadrilateral.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.