Practice worksheet | Geometry and proof

Circle theorems and their applications

Name: _____ Date: _____

6 questions | 14 marks

1. ABCD is cyclic and $\angle A = 112^\circ$. Find $\angle C$. [2 marks]

2. A simple quadrilateral has opposite angles 96° and 84°. What can be concluded? [2 marks]

3. A tangent-chord angle is 41° and C lies in its alternate segment. Find the corresponding circumference angle. [2 marks]

4. A cyclic quadrilateral has opposite angles $3x + 10$ and $5x - 6$ degrees. Find x and both angles. [3 marks]

5. ABCD is cyclic. An exterior angle at A is 65°. Find interior $\angle C$ and explain. [3 marks]

6. A radius meets a tangent at A. Chord AB makes 35° with radius AO. Find the smaller angle between the tangent line and chord line. [2 marks]