Practice worksheet | Geometry and proof

# Circle theorems and their applications

Name: _____ Date: _____

6 questions | 14 marks

**1.** ABCD is cyclic and ∠A=112°. Find ∠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]