Practice worksheet | Proof and circle geometry

Cyclic quadrilaterals

Name: _____ Date: _____

6 questions | 14 marks

1. ABCD is cyclic in that order. Angle A is 112°. Find C. [2 marks]

2. Opposite angles of a cyclic quadrilateral are x and 3x. Find both. [2 marks]

3. A side at vertex C is extended to form an exterior angle of 128° in cyclic ABCD. Find the opposite interior angle A. [2 marks]

4. A convex quadrilateral has opposite angles 101° and 79°. Give a reason that its vertices lie on a circle. [2 marks]

5. A student claims every parallelogram is cyclic because opposite sides are parallel. Give a counterexample. [3 marks]

6. ABCD is cyclic with $\text{A} = 80^\circ$ and $\text{B} = 95^\circ$. Find C and D, then verify the angle sum. [3 marks]