Name - _ _ _ _ _ _ _ _ _   Start time - _ _ : _ _   End time - _ _ : _ _

Solve the following.

1. A chord of a circle is equal to the radius of the circle. Find the angle subtended by the chord at a point on the minor arc and also at a point on the major arc.

2. Prove that a cyclic parallelogram is a rectangle

3. Let the vertex of an angle ABC be located outside a circle and let the sides of the angle intersect equal chords AD and CE with the circle. Prove that ∠ABC is equal to half the difference of the angles subtended by the chords AC and DE at the centre.

4. ABCD is a parallelogram. The circle through A, B and C intersect CD (produced if necessary) at E. Prove that AE, = AD

5. AC and BD are chords of a circle which bisect each other. Prove that (i) AC and BD are diameters; (ii) ABCD is a rectangle.

1 2 3 4 5 6 7 8 9