Circles Worksheet
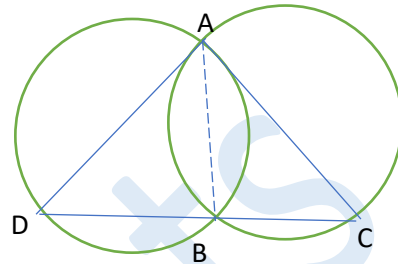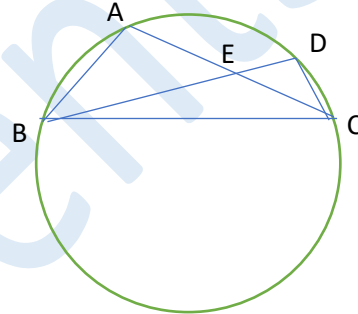
Q1)Prove that angle subtended by an arc at centre is double the angle subtended by it at the remaining part of the circle.

Q2)Two circles intersect at two points A and B. AD and AC are the diameter to two circles. Prove that B lies on the line segment DC.

Q3)ABCD are four points on a circle. AC and BD intersect at E such that ∠BEC =130 and ∠ECD =20. Find ∠BAC.

Q4)Three locations A , B and C lies on inner ring road of a Bhopal of radius 5km. Distance between A and B and distance between B and C is 6km each. What is the distance between A and C?

Q5) If diagonals of a cyclic quadrilateral are diameters of the circle through the vertices of the quadrilateral, prove that it is a rectangle.

Q6) AB and AC are two chords of the circle of radius r such that AB = 2AC. If p and q are the distances of AB and AC from the centre, prove that

$$4q^2 = p^2 + 3r^2$$

Q7) ABC is a right-angled triangle, right angled at B. If D is mid point of AC and ∠DBC = 20, find$\angle BAC$.