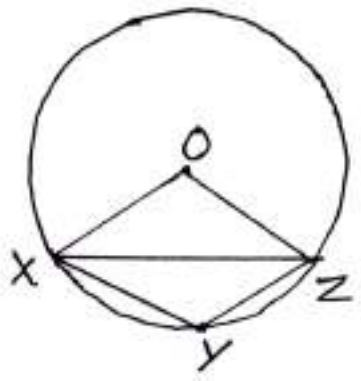
G. N. National Public School, Gorakhnath, GKP.

Class - IX MATHS Chapter - 10 Circles

Assignment Part - 3

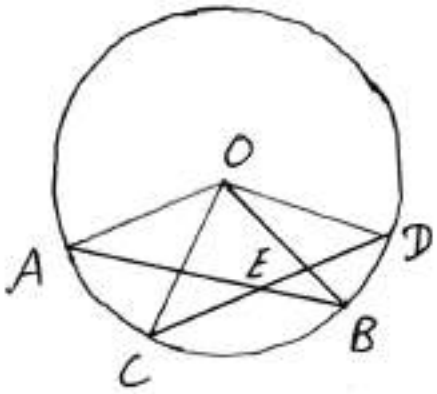
Q.1 In the given figure, O is the centre of the circle. Prove that

$\angle XOZ = 2(\angle XZY + \angle YXZ)$

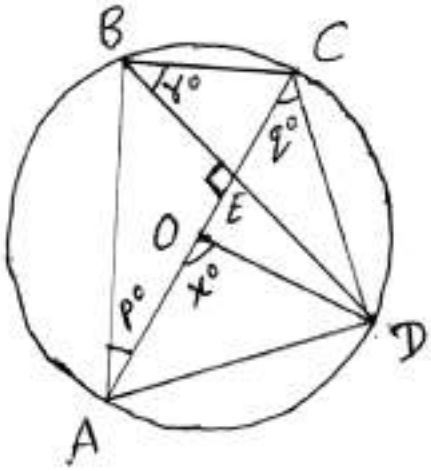



Q.2 - In the given figure, O is the centre of the given circle and chords AB and CD intersect at a point E inside the circle. Prove that

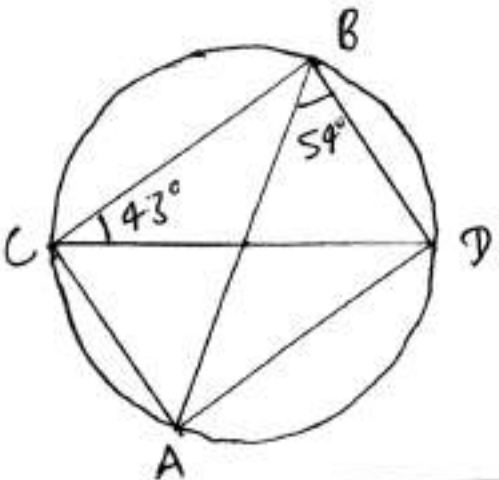
$\angle AOC + \angle BOD = 2\angle AEC$




Q.3 - In the adjoining figure, AC is the diameter of a circle with centre O and chord BD ⊥ AC, intersecting each other at E. Find out the values of p, q, r in terms of x.



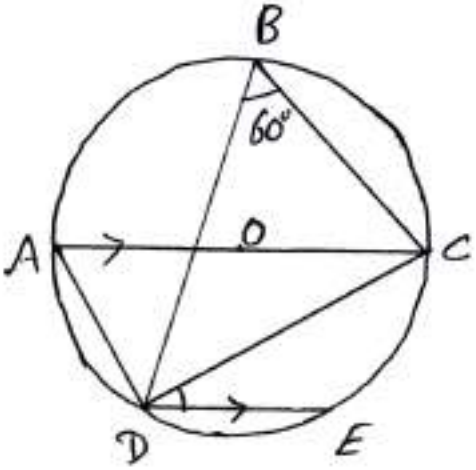

Q.4 - In the given figure, $\angle ABD = 54°$ and $\angle BCD = 43°$, calculate (i) $\angle ACD$ (ii) $\angle BAD$ (iii) $\angle BDA$.



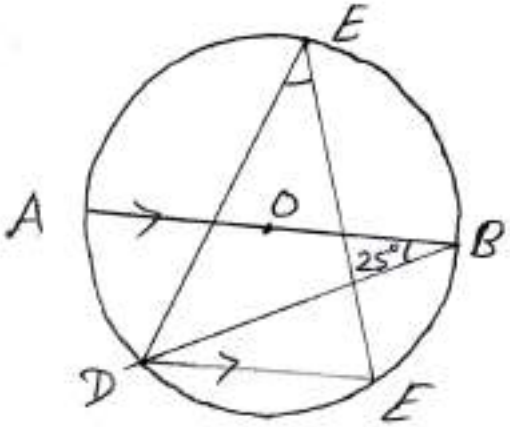
Ch-10 Circles Assignment Part-4

Q.5- A circle has radius $\sqrt{2}$ cm. It is divided into two segments by a chord of length 2 cm. Prove that the angle subtended by the chord at a point in the major segment is 45°.

Q.6- In the adjoining figure, DE is a chord parallel to diameter AC of the circle with centre O. If $\angle CBD = 60°$, calculate $\angle CDE$.




Q.7- In the adjoining figure, O is the centre of a circle. Chord CD is parallel to diameter AB. If $\angle ABC = 25°$, calculate $\angle CED$.




Q.8- In the given figure, AB and CD are two chords of a circle, intersecting each other at a point E. Prove that $\angle AEC = \frac{1}{2}$ (angle subtended by arc CXA at the centre + angle subtended by arc DYB at the centre).