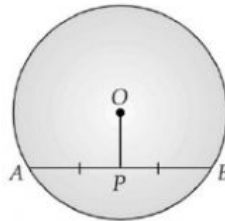


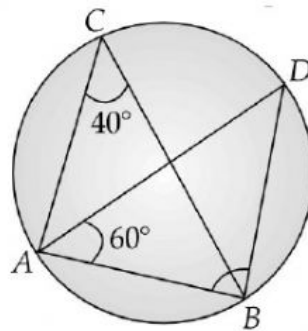
Concept_Grade-9_Circles

Basic Properties of Circles

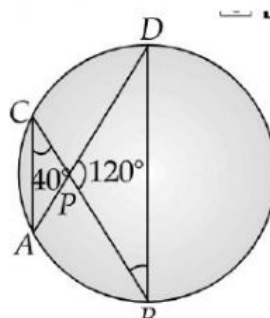
1. In the given figure, O is the centre of the circle and $PA = PB$. Find $\angle OPA$.



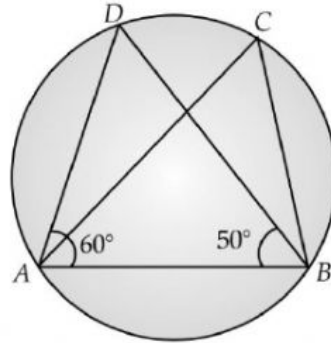
2. In the given figure, A, B, C and D are the points on a circle such that $\angle ACB = 40^\circ$ and $\angle DAB = 60^\circ$, the measure of $\angle DBA$ is.....



3. In the given figure, $\angle ACP = 40^\circ$ and $\angle BPD = 120^\circ$, then $\angle CBD =$



4. In the figure, if $\angle DAB = 60^\circ$, $\angle ABD = 50^\circ$, then find $\angle ACB$.



5. Prove that "equal chords of a circle subtend equal angles at the centres."
6. A chord of length 10 cm is at a distance of 12 cm from the centre of a circle. Find the radius of the circle.
7. In the given figure, AB and CD are two chords of a circle with centre O such that $MP = NP$. If $OM \perp AB$ and $ON \perp DC$, show that $AB = CD$.
8. If O is the circumcentre of a $\triangle ABC$ and $OD \perp BC$, then prove that $\angle BOD = \angle BAC$