

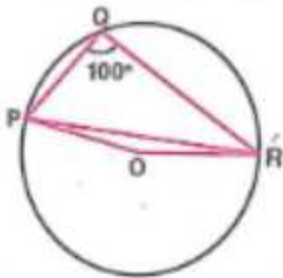
Name - \_\_\_\_\_

Start time - \_\_\_ : \_\_\_

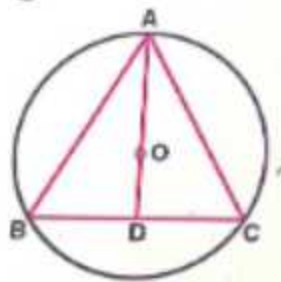
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**Solve the following.**

1. In Figure,  $\angle PQR = 100^\circ$ , where P, Q and R are points on a circle with centre O. Find  $\angle OPR$ .



2. A circular park of radius 20m is situated in a colony. Three boys Ankur, Syed and David are sitting at equal distance on its boundary each having a toy telephone in his hands to talk each other. Find the length of the string of each phone.



3. If two equal chords of a circle intersect within the circle, prove that the line joining the point of intersection to the centre makes equal angles with the chords.
4. If two circles intersect at two points, prove that their centres lie on the perpendicular bisector of the common chord.