

15/9/2020  
TUESDAY

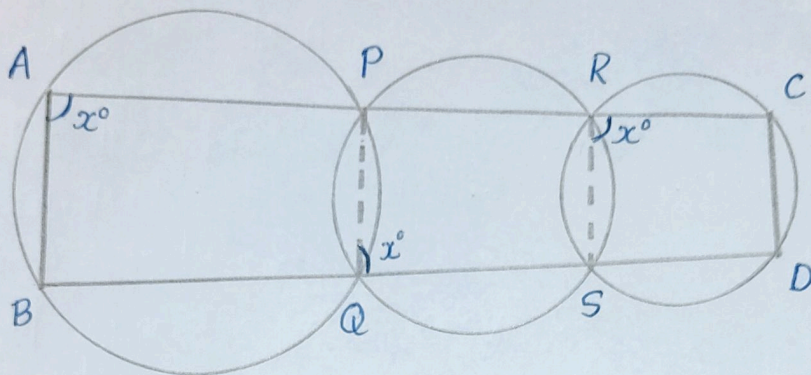
## MATHEMATICS

STD - X  
class - 30

### Assignment

1) In the picture, the circles on the left and right intersect the middle circle at P, Q, R, S; the lines joining them meet the left and right circles at A, B, C, D. Prove that ABCD is a cyclic quadrilateral.

Ans)



Let  $\angle A = x^\circ$ . Then  $\angle PQS = x^\circ$

$$\angle SRC = x^\circ$$

In cyclic quadrilateral SDCR,  $\angle D = 180 - x^\circ$

$$\angle A + \angle D = x + 180 - x = 180^\circ$$

$\angle A$  and  $\angle D$  are supplementary. So quadrilateral ABDC is cyclic.