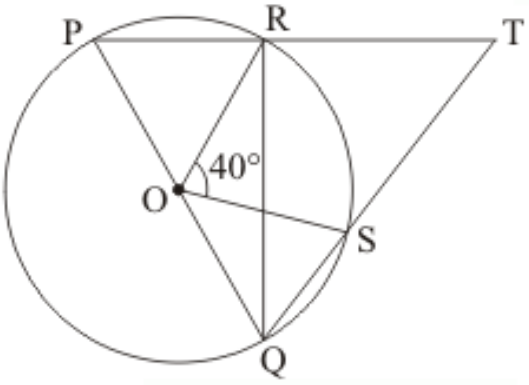
Circles Ex 16.4 Q9

Answer :

It is given that O is the center and $\angle SOR = 40^0$



We have $\angle RQS = \frac{1}{2}\angle ROS = 20^0$

In right angled triangle TRQ we have

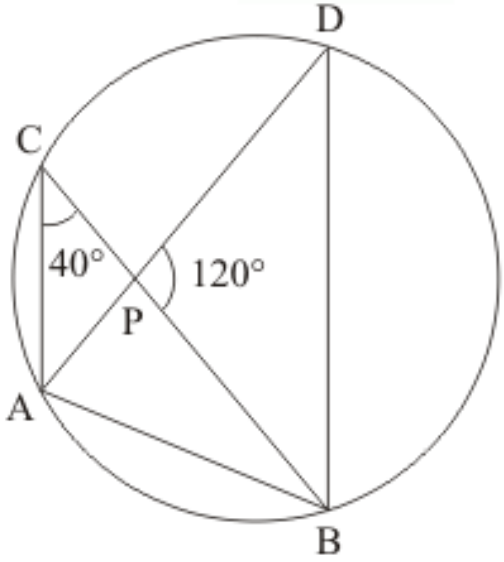
$$\angle QRT + \angle RQS + \angle RTQ = 180^0$$
$$90^0 + 20^0 + \angle RTQ = 180^0$$
$$\angle RTQ = 70^0$$

Hence $\boxed{\angle RTQ = 70^0}$

Circles Ex 16.4 Q10

Answer :

It is given that $\angle ACP = 40^0$ and $\angle BPD = 120^0$



Construction: - meet the point *A* to *B*

So $\angle ACB = \angle ADB$ (arc of same segment)

$\angle ACB = \angle ADB = 40^0$ (Given)

Now in ΔADB we have

$$\angle BPD + \angle PDB + \angle PBD = 180^0$$
$$120^0 + 40^0 + \angle PBD = 180^0$$
$$\angle PBD = 180^0 - 160^0$$
$$= 20^0$$

Hence $\boxed{\angle CBD = 20^0}$

********** END **********