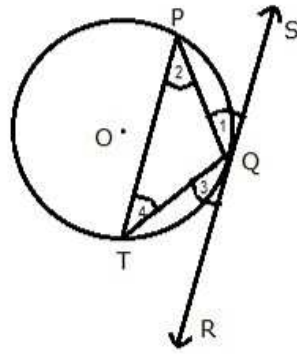


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given In fig. Q is midpt. of \widehat{TP} , SR is tangent
to prove $PT \parallel SR$

proof

angles in alternate segment are equal

$$\angle 1 = \angle 4 \quad \dots (i)$$

$$\angle 2 = \angle 3 \quad \dots (ii)$$

Q is midpoint of \widehat{TP}

$$\text{arc TQ} = \text{arc QP}$$

$$\therefore QT = QP$$

NCERT Exemplar Solutions by Dev Anoop (Bathinda)

In ΔQPT

$$QT = QP$$

$$\therefore \angle 2 = \angle 4 \quad \dots (iii) \quad (\text{isosceles } \Delta \text{ property})$$

From (i), (ii), (iii)

$$\angle 1 = \angle 2$$

But these are alternate interior \angle s

$$PT \parallel SR$$