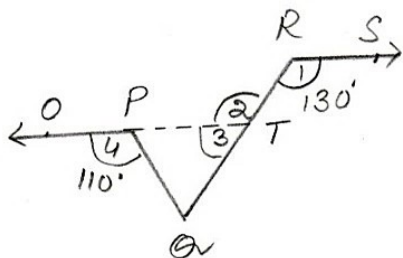


⑦

construction - produce  
OP to intersect  
QR at T



Sol -  $OP \parallel RS$

$$\therefore \angle 2 = \angle 1 = 130^\circ \text{ (alternate \u2265 angles)}$$

$$\angle 2 + \angle 3 = 180^\circ \text{ (linear pair axiom)}$$

$$130 + \angle 3 = 180^\circ$$

$$\Rightarrow \angle 3 = 180^\circ - 130$$

$$\Rightarrow \angle 3 = 50^\circ$$

$\angle 4$  is exterior angle of  $\triangle PQT$

$$\therefore \angle 4 = \angle 3 + \angle 1$$

$$110 = 50 + \angle 1$$

$$\Rightarrow \angle PQR = 110^\circ - 50^\circ \\ = 60^\circ$$

⑧

let the angles be  $2x^\circ, 4x^\circ, 3x^\circ$

$$2x + 4x + 3x = 180^\circ \text{ (angle sum prop of } \triangle)$$

$$\Rightarrow 9x = 180^\circ$$

$$\Rightarrow x = 20$$

$$\text{Smallest angle} = 2 \times 20 \\ = 40^\circ$$