



Lines and angles Ex 14.2 Q19

Answer :

$$\angle x + 125^\circ = 180^\circ \quad (\text{Linear pair})$$

$$\therefore \angle x = 180^\circ - 125^\circ = 55^\circ$$

$$\angle z = 125^\circ \quad (\text{Corresponding angles})$$

$$\angle x + \angle z = 180^\circ \quad (\text{Sum of adjacent interior angles is } 180^\circ)$$

$$\angle x + 125^\circ = 180^\circ$$

$$\Rightarrow \angle x = 180^\circ - 125^\circ = 55^\circ$$

$$\angle x + \angle y = 180^\circ \quad (\text{Sum of adjacent interior angles is } 180^\circ)$$

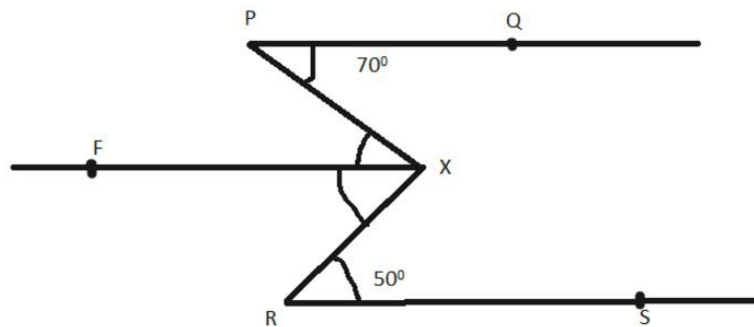
$$55^\circ + \angle y = 180^\circ$$

$$\Rightarrow \angle y = 180^\circ - 55^\circ = 125^\circ$$

Lines and angles Ex 14.2 Q20

Answer :

Draw a line parallel to PQ passing through X.



Here,

$$\angle PQX = \angle PXF = 70^\circ \text{ and } \angle SRX = \angle RXF = 50^\circ \quad (\text{Alternate interior angles})$$

$$\therefore PQ \parallel RS \parallel XF$$

$$\therefore \angle PXR = \angle PXF + \angle FXR = 70^\circ + 50^\circ = 120^\circ$$

***** END *****