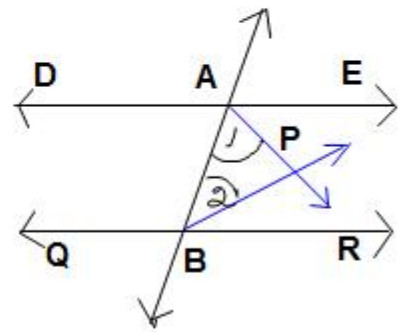


NCERT Exempar Solutions by Dev Anoop (Bathinda)

⑦ given - In fig.  $DE \parallel QR$ ,  
 $AP$  bis  $\angle EAB$ ,  $BP$  bis  $\angle ABR$

to find  $\angle APB$



Sol  $DE \parallel QR$   
 $\angle EAB + \angle RBA = 180^\circ$   
 (Co. int.  $\angle$ s)

$$2\angle 1 + 2\angle 2 = 180^\circ$$

$$(\div 2) \quad \angle 1 + \angle 2 = 90^\circ$$

$$\angle 1 + \angle 2 + \angle P = 90^\circ + \angle P$$

$$\Rightarrow 180^\circ - 90^\circ = \angle P$$

$$\Rightarrow \angle APB = 90^\circ$$

⑧ let the angles be  $2x$ ,  $3x$ ,  $4x$   
 acc. to prob

$$2x + 3x + 4x = 180^\circ$$

$$\Rightarrow 9x = 180$$

$$\Rightarrow x = 20$$

$\therefore$  angles are  $2 \times 20 = 40^\circ$   
 $3 \times 20 = 60^\circ$   
 $4 \times 20 = 80^\circ$

⑨ to prove  $\angle BAL = \angle ACB$

proof In  $\Delta$ ,  $BLA$  and  $\Delta BAC$

$$\cancel{\angle B} + \angle 2 + \angle 1 = \cancel{\angle B} + \angle 3 + \angle C = 180^\circ$$

(angle sum prop of  $\Delta$ )

$$90^\circ + \angle 1 = 90^\circ + \angle C$$

$$\Rightarrow \angle BAL = \angle ACB$$

