

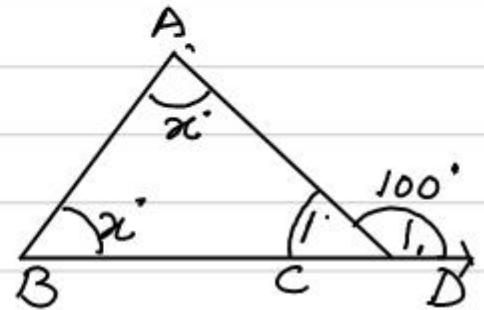
Solutions by Dev Anoop

5. to find $\angle A$, $\angle B$, $\angle ACB$
 Sol $\angle ACD$ is exterior angle
 of $\triangle ABC$

$$\therefore \angle ACD = \angle A + \angle B$$

$$\text{let } \angle A = \angle B = x^\circ$$

$$100^\circ = x^\circ + x^\circ$$



$$\Rightarrow 2x = 100$$

$$\Rightarrow x = \frac{100}{2} = 50$$

$$\Rightarrow x = 50$$

$$\angle A + \angle ACD = 180^\circ \quad (\text{linear pair})$$

$$\angle A + 100^\circ = 180^\circ$$

$$\Rightarrow \angle A = 180 - 100$$

$$\Rightarrow \angle ACB = 80^\circ$$

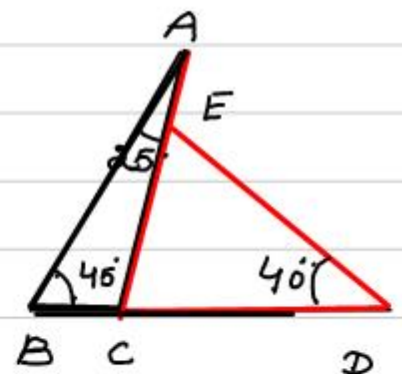
$$\therefore \angle A = \angle B = x^\circ = 50^\circ, \quad \angle ACB = 80^\circ$$

6. to find $\angle ACD$, $\angle AED$
 Sol $\angle ACD$ is exterior angle
 of $\triangle ABC$

$$\therefore \angle ACD = \angle A + \angle B$$

$$= 25^\circ + 45^\circ$$

$$= 70^\circ$$



$\angle AED$ is exterior angle of $\triangle ECD$

$$\therefore \angle AED = \angle ACD + \angle D$$

$$= 70^\circ + 40^\circ$$

$$= 110^\circ$$

$$\therefore \angle ACD = 70^\circ, \quad \angle AED = 110^\circ$$