



#### Exercise 4D

Question 4:

$$\angle A + \angle B = 108^\circ \text{ [Given]}$$

But as  $\angle A$ ,  $\angle B$  and  $\angle C$  are the angles of a triangle,

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\Rightarrow 108^\circ + \angle C = 180^\circ$$

$$\Rightarrow \angle C = 180^\circ - 108^\circ = 72^\circ$$

Also,  $\angle B + \angle C = 130^\circ$  [Given]

$$\Rightarrow \angle B + 72^\circ = 130^\circ$$

$$\Rightarrow \angle B = 130^\circ - 72^\circ = 58^\circ$$

Now as,  $\angle A + \angle B = 108^\circ$

$$\Rightarrow \angle A + 58^\circ = 108^\circ$$

$$\Rightarrow \angle A = 108^\circ - 58^\circ = 50^\circ$$

$\therefore \angle A = 50^\circ$ ,  $\angle B = 58^\circ$  and  $\angle C = 72^\circ$ .

Question 5:

Since,  $\angle A$ ,  $\angle B$  and  $\angle C$  are the angles of a triangle .

$$\text{So, } \angle A + \angle B + \angle C = 180^\circ$$

Now,  $\angle A + \angle B = 125^\circ$  [Given]

$$\therefore 125^\circ + \angle C = 180^\circ$$

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

Also,  $\angle A + \angle C = 113^\circ$  [Given]

$$\Rightarrow \angle A + 55^\circ = 113^\circ$$

$$\Rightarrow \angle A = 113^\circ - 55^\circ = 58^\circ$$

Now as  $\angle A + \angle B = 125^\circ$

$$\Rightarrow 58^\circ + \angle B = 125^\circ$$

$$\Rightarrow \angle B = 125^\circ - 58^\circ = 67^\circ$$

$\therefore \angle A = 58^\circ$ ,  $\angle B = 67^\circ$  and  $\angle C = 55^\circ$ .

\*\*\*\*\* END \*\*\*\*\*