

Solution

5. $\angle B : \angle C = 3 : 2$

let $\angle B = 3x$, $\angle C = 2x$

$\angle B + \angle C = 180^\circ$ (adjacent \angle s of a \parallel gm)

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

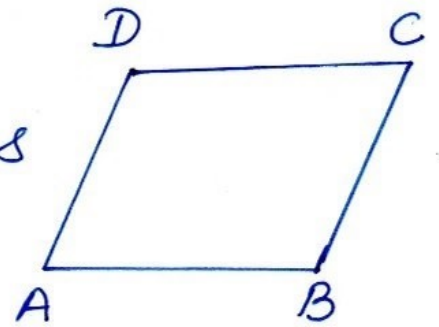
$\Rightarrow 5x = 180$

$\Rightarrow x = \frac{180}{5}$

$= 36$

$\angle B = 3 \times 36$
 $= 108^\circ$

$\angle C = 2 \times 36$
 $= 72^\circ$



$\angle D = \angle B = 108^\circ$ (*)

$\angle A = \angle C = 72^\circ$ (*)

* opposite angles of a \parallel gm

6. $\angle A = \angle B$ (given)

$\angle A + \angle B = 180^\circ$ (*)

$\angle A + \angle A = 180^\circ$ ($\because \angle A = \angle B$)

$\Rightarrow 2\angle A = 180^\circ$

$\Rightarrow \angle A = \frac{180}{2}$

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

$\therefore \angle A = \angle B = 90^\circ$

$\angle C = \angle A = 90^\circ$ [opposite angles of a \parallel gm]
 $\angle D = \angle B = 90^\circ$ [opposite angles of a \parallel gm]

* adjacent \angle s of a \parallel gm