

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)

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

$\Rightarrow 5x = 180$

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

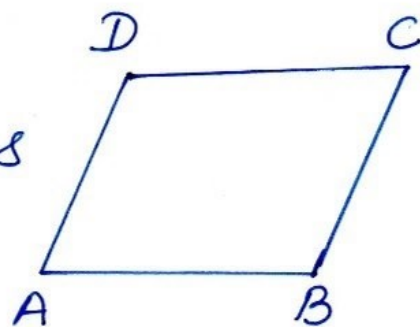
$= 36$

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

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

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

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

\* 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