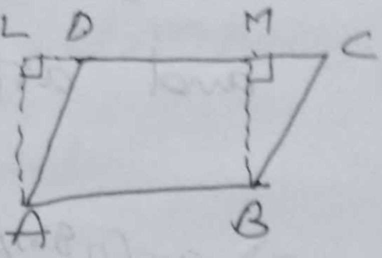
Corollary 1:- The area of a parallelogram is equal to the product of its base and corresponding altitude height.

Given:- Let ABCD be a parallelogram in which AB is the base and AL is the height.



R.T.P:- $ar(\parallel^{gm} ABCD) = AB \times AL$

Construction:- Draw $BM \perp DC$ and $AL \perp CD$ Extended so that rectangle ABML is formed

Prf:- clearly $\parallel^{gm}$ABCD and rectangle ABML are on the same base AB and between the same parallel lines AB and LC.

$\therefore ar(\parallel^{gm} ABCD) = ar(\text{rectangle } ABML)$
$= AB \times AL$

$\therefore$ Area of parallelogram = Base × height.

Corollary 2:- Parallelograms on equal base (or same base) and between the same parallels are equal in area.

Given:- Let ABCD and PQRS be two parallelograms with equal bases AB and PQ and between the same parallels AQ and DR.

R.T.P:- $ar(\parallel^{gm} ABCD) = ar(\parallel^{gm} PQRS)$.

Construction:- Draw $DL \perp AB$ (Produced and $RM \perp PQ$.