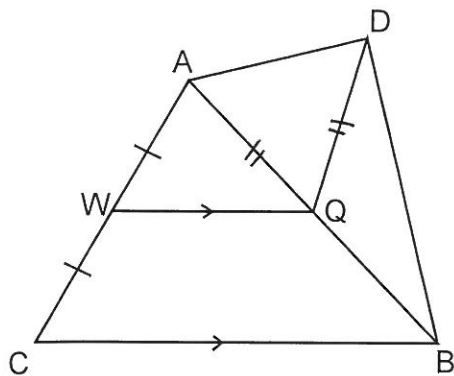


(1)



In the sketch  $AW = WC$  and  $WQ \parallel BC$ .  
 $\triangle ADQ$  is an isosceles  $\triangle$  with  $AQ = QD$ .

Prove that  $\triangle QBD$  is an isosceles  $\triangle$  as well.

In  $\triangle ABC$ :

$AW = WC$  and  $WQ \parallel BC$  [given]

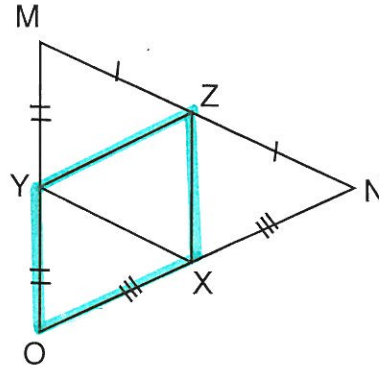
$\therefore AQ = QB$  [line from midpoint, side of  $\triangle$  and  $\parallel$  2<sup>nd</sup> side]

but  $AQ = DQ$  [given]

$\therefore QB = DQ$

$\therefore \triangle QBD$  is an isosceles  $\triangle$

- (2) Prove that  $YZXO$  is a parallelogram.



If  $MY = YO$  [given]  
and  $MZ = ZO$  [given]  
then  $YZ \parallel ON$  [Line join 2 midpoints  
 $\Rightarrow YZ \parallel OX$  of  $\triangle sides$ ]

Also: If  $NZ = ZO$  [given]  
and  $NX = XO$  [given]  
then  $ZX \parallel MO$  [Line join 2 midpt.  
 $\Rightarrow ZX \parallel YO$  of  $\triangle sides$ ]

$\therefore YZXO$  is a parm., because both  
pairs of opp. sides are parallel.