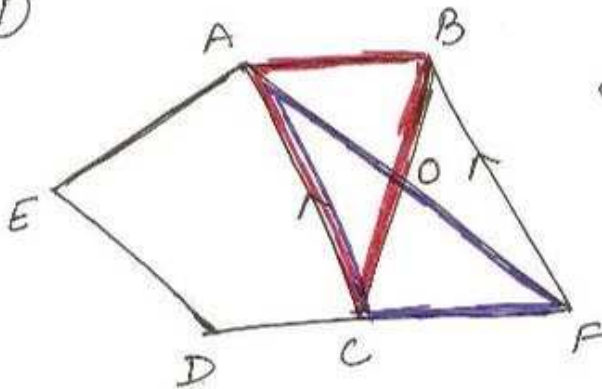


ex 9.3 NCERT Exemplar Solutions by Dev Anoop (Bathinda)

(11)



To prove  $ar(\triangle ACB) = ar(\triangle ACF)$   
 $ar(\square AEDF) = ar(\square ABCDE)$

Proof

$AC \parallel BF$

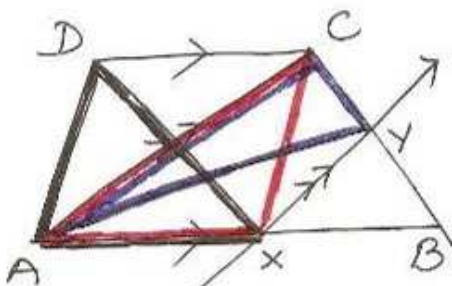
$ar(\triangle ACB) = ar(\triangle ACF)$

[ $\Delta$ s on same base and between same parallel lines]

$\Rightarrow ar(\triangle ACB) + ar(\square AEDC) = ar(\triangle ACF) + ar(\square AEDC)$

$\Rightarrow ar(\square ABCDE) = ar(\square AEDF)$

(12)



To prove  $ar(\triangle ADX) = ar(\triangle ACY)$   
 Const - join CX

Proof  $ar(\triangle ADX) = ar(\triangle CAX) \dots \textcircled{1}$

[ $\Delta$ s on same base and between same parallel lines]

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$ar(\triangle CAX) = ar(\triangle ACY) \dots \textcircled{ii}$  (do)

From  $\textcircled{1}, \textcircled{ii}$

$ar(\triangle ADX) = ar(\triangle ACY)$