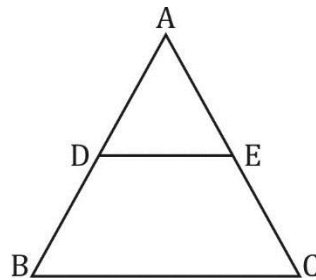


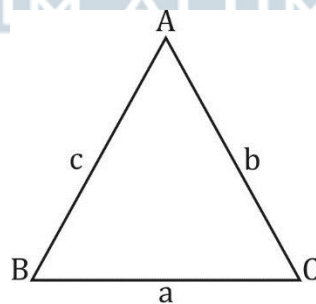
## Properties of Triangle



If  $DE \parallel BC$ . Then,

$$\frac{AD}{DB} = \frac{AE}{EC} = \frac{DE}{BC}$$

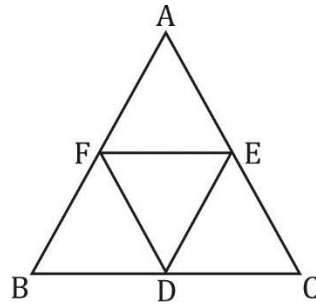
$$\frac{AD}{AB} = \frac{AE}{AC}$$



$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C} = 2R \quad (R = \text{Circumcenter})$$

$$a : b : c \approx \sin A : \sin B : \sin C$$

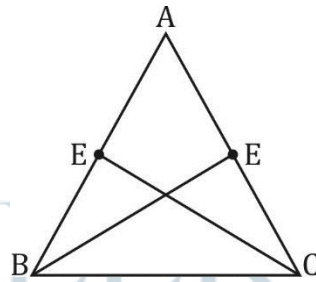
- If F, D & E are midpoints of AB, BC & AC (यदि F, D एवं E, AB, BC एवं AC के मध्य बिंदु हैं)



Then,

- $FE \parallel BC$  &  $FE = \frac{1}{2} BC$
- $FD \parallel AC$  &  $FD = \frac{1}{2} AC$
- $ED \parallel AB$  &  $ED = \frac{1}{2} AB$
- Area of  $\triangle DFE = \frac{1}{4}$  area  $\triangle ABC$

- In, Isosceles triangle (समद्विबाहु त्रिभुज में),  $AB = AC$

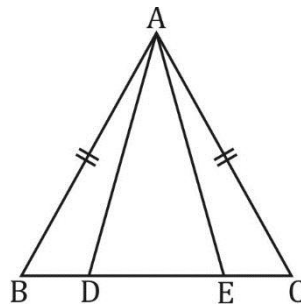


If E & F are mid points (यदि E एवं F मध्य बिंदु हैं)

Then,

$$EC = BF$$

- In, Isosceles triangle,  $AB = AC$  &  $BE = CD$  (यदि समद्विबाहु त्रिभुज  $AB = AC$  &  $BE = CD$ )



Then,

$$AD = AE$$