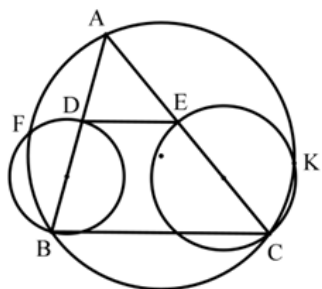


**Example 196 :** As shown in Figure 1 , in  $\triangle ABC$  , if  $DE \parallel BC$  intersects  $AB$  and  $AC$  at points  $D$  and  $E$  respectively, the second intersection point between the circle whose diameter is  $BD$  and  $CE$  and the circumscribed circle of  $\triangle ABC$  is respectively  $F$  and  $K$  :  $D, E, K, F$  are all circles. (Wanxiren's proposition)



$$\frac{F-D}{F-K} \frac{F-K}{F-B} \frac{K-C}{K-E} \frac{D-E}{D-B} \frac{B-C}{B-A} = 1,$$

Note: This question has nothing to do with  $A, D, E, K, F$  four points share a circle  $\Leftrightarrow DE \parallel BC$ .  $\angle DFB = \angle CKE = 90^\circ$  restrictions that can be removed .

$90^\circ$