



**Example 1 56 :** As shown in Figure 3, the quadrilateral  $ABCD$  is inscribed in a circle , the angle bisector of  $\angle ABC$  intersects the circle at  $E$  , and  $F$  is on the extension line of  $CD$  . Prove that  $DE$  is the bisector of  $\angle ADF$  .

$$\frac{\frac{C-D}{D-E}}{\frac{D-E}{D-A}} = \frac{\frac{D-A}{B-A} \frac{A-B}{B-E}}{\frac{B-E}{B-C}} / \left( \frac{E-D}{E-B} \frac{C-B}{C-D} \right),$$