



Example 1 47 : As shown in Figure 3, suppose Δ a circle is drawn through the center I of ABC and side AB cuts *at point A*, and the intersection point with BC is D and E , then IC bisects $\angle DIE$.

$$\frac{I-E}{I-C} = \frac{C-B}{C-I} \frac{A-I}{A-C} \frac{E-I}{A-I} \frac{A-E}{C-B},$$

$$\frac{I-D}{I-C} = \frac{C-A}{C-I} \frac{A-I}{A-B} \frac{A-E}{D-I}$$