

Example 2 26: As shown in the figure, the quadrilateral ABCD, the angle bisectors of the four corners intersect at point 0, the known straight lines EF and GH are symmetrical about AO, the straight lines GH and IJ are symmetrical about BO, and the straight lines IJ and LK are symmetrical about CO. Prove: Lines LK and EF are symmetrical about DO.

$$\frac{A-D}{A-O} \frac{B-O}{B-C} \frac{C-B}{C-O} \frac{D-O}{D-A} \frac{A-O}{B-O} \frac{G-H}{B-O} \frac{C-O}{K-L} \frac{K-L}{D-O} = 1$$

$$\frac{A-O}{A-B} \frac{B-O}{B-O} \frac{C-D}{C-D} \frac{D-C}{D-O} \frac{E-F}{A-O} \frac{B-O}{I-J} \frac{K-L}{C-O} \frac{D-O}{E-F} = 1$$