

Example 1 91: As shown in Figure 1, the circle inscribes the polygon BCDEFG, where FG and ED are symmetrical about the straight line l_1 , BG and DC are symmetrical about the straight line l_2 , then $EF//BC \Leftrightarrow l_1//l_2$.

Proof: If known
$$l_1//l_2$$
, then by $\dfrac{\dfrac{B-C}{B-E}\dfrac{G-F}{B-G}\dfrac{L}{E-D}\dfrac{B-G}{L}\dfrac{E-F}{C-B}=1$, can be obtained $EF//BC$. If it is known $EF//BC$, then

$$\frac{B-C}{B-E} \frac{G-F}{B-G} \frac{l_1}{E-D} \frac{B-G}{l_2} \frac{E-F}{C-D} \text{ it is a positive real number because it } \left(\frac{l_1}{l_2}\right)^2 \text{ is }$$

a positive real number, and it can be obtained $\mathit{EF}//\mathit{BC}$.