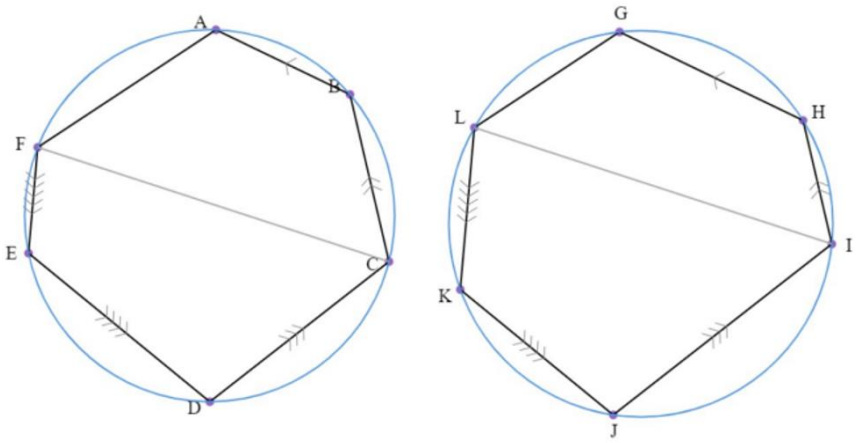

Example 2 31 : As shown in the figure, the hexagon $ABCDEF$, $A_1B_1C_1D_1E_1F_1$ is inscribed by two circles . It is known that $AB \parallel A_1B_1, BC \parallel B_1C_1, CD \parallel C_1D_1, DE \parallel D_1E_1, EF \parallel E_1F_1$, to prove: $AF \parallel A_1F_1$.

$$\frac{A-F}{A_1-F_1}=\frac{A-B}{A_1-B_1}\frac{B_1-C_1}{B-C}\frac{C_1-D_1}{C-D}\frac{D-E}{D_1-E_1}\frac{E-F}{E_1-F_1}\frac{\frac{A_1-B_1}{A_1-F_1}\frac{C-B}{F-C}\frac{D_1-E_1}{D_1-C_1}\frac{F-C}{F-E}}{\frac{C_1-B_1}{F_1-C_1}\frac{A-B}{A-F}\frac{F_1-C_1}{F_1-E_1}\frac{D-E}{D-C}},$$