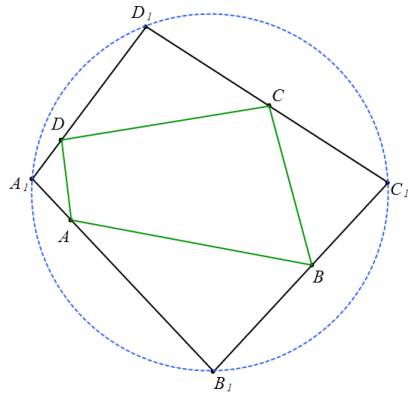**Example 82 :** As shown in Figure 3, make a quadrilateral circumscribed by quadrilateral $A_1B_1C_1D_1ABCD$, if $\angle A_1AD = \angle B_1AB$, $\angle B_1BA = \angle C_1BC$,

$\angle C_1CB = \angle D_1CD$, $\angle D_1DC = \angle A_1DA$, then the quadrilateral $A_1B_1C_1D_1$ is a quadrilateral inscribed in a circle.

$$\frac{\dfrac{B_1-A_1}{A-D}}{\dfrac{A-B}{A_1-B_1}} \frac{\dfrac{B-C}{B_1-C_1}}{\dfrac{C_1-B_1}{B-A}} \frac{\dfrac{D_1-C_1}{C-B}}{\dfrac{C-D}{C_1-D_1}} \frac{\dfrac{D-A}{D_1-A_1}}{\dfrac{A_1-D_1}{D-C}} = \left(\frac{\dfrac{B_1-A_1}{B_1-C_1}}{\dfrac{A_1-D_1}{D_1-C_1}}\right)^2 .$$

Up and down is an equation. different interpretation



change picture