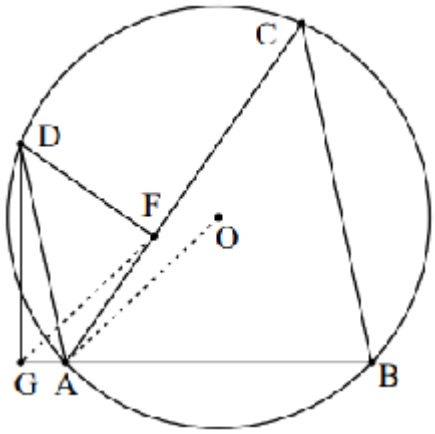
Example 88 : As shown in Figure 3, in △ ABC, O is the circumcenter, and the parallel line passing through A to BC *intersects the circumscribed circle* of △ ABC at point D, and the feet of D on AB and AC *are* G and F respectively . Prove: GF // AO.



$$\frac{G-F}{O-A}=\frac{B-C}{A-D}\frac{\dfrac{G-F}{A-B}}{\dfrac{D-F}{D-A}}\left(\frac{D-F}{A-C}\frac{A-B}{A-O}\frac{C-A}{C-B}\right)$$