

Example 1 29: As shown in Figure 3, take any point D on the side AB of  $\triangle$  ABC, take any point F on the extension line of AC, and connect it to DF. If the bisector of  $\angle$ ADF and  $\angle$ ABC intersect at N. The bisector of  $\angle$ AFD and  $\angle$ ACB intersect at M, then  $\angle$ BND =  $\angle$ CMF.

$$\left(\frac{\frac{N-B}{N-D}}{\frac{M-C}{M-F}}\right)^{2} = \frac{\frac{D-A}{D-N}}{\frac{D-N}{D-F}} \frac{\frac{B-N}{B-C}}{\frac{B-C}{B-N}} \frac{\frac{C-B}{C-M}}{\frac{C-M}{F-M}} \frac{\frac{F-M}{F-A}}{\frac{F-D}{F-M}} \frac{A-B}{A-D} \frac{A-F}{A-C},$$