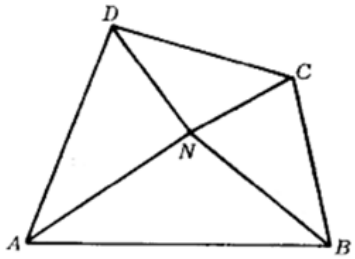
Example 126 : As shown in Figure 3, *NA and NB* are *the* bisectors of ∠DAB and ∠CBA . Prove that ∠*ADC* + ∠BCD = 2 ∠ANB .



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