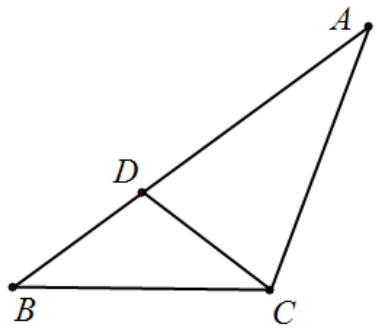
Example 200 : As shown in Figure 1 , △in ABC , ∠C =3 ∠B , intercept $AD=AC$ on AB , and prove : $CD=DB$.



$$\left(\frac{\frac{C-B}{C-D}}{\frac{B-A}{B-C}}\right)^2 \frac{\left(\frac{B-A}{B-C}\right)^3}{\frac{C-B}{C-A}} \frac{\frac{C-D}{C-A}}{\frac{B-A}{D-C}}=1,$$