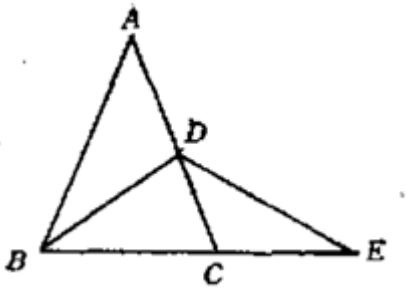
Example 112 : As shown in Figure 1, $\triangle in$ ABC, $AB$ = A $C$, BD $is$ the bisector of $\angle$ ABC , $E$ $is$ a point on the extension line of side $BC$, and $BD$ = $DE$. Prove : $CD$ = $CE$.




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