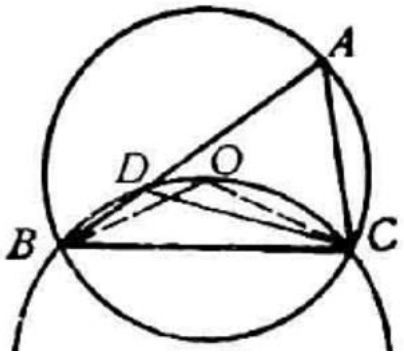

Example 207 : As shown in Figure 1 , O *is* the circumcenter of $\triangle ABC$, *and* D is a point on AB. If B, C, O, and D share a circle, prove: $DA = DC$.

prove: $\dfrac{\dfrac{A-C}{A-B}}{\dfrac{C-D}{C-A}} = \dfrac{\dfrac{O-C}{O-B}}{\dfrac{D-C}{A-B}} \dfrac{\dfrac{A-C}{A-O}}{\dfrac{C-O}{C-A}} \dfrac{\dfrac{A-O}{A-B}}{\dfrac{B-A}{B-O}}$