

Example 178: As shown in Figure 1, AB is the chord of circle O, OC is perpendicular to OA, intersects AB at D, and intersects the tangent of B at C, then BC = CD.

$$\frac{\frac{A-B}{O-C}}{\frac{B-C}{B-A}} = \frac{\frac{B-A}{B-O}}{\frac{A-O}{A-B}} \frac{\frac{A-O}{O-C}}{\frac{B-C}{B-O}},$$