



Example 1 98 : As shown in Figure 1 , *there are* A , B , C , and D on circle O , and AB intersects CD with E . Prove: $2\angle CEB = \angle COB + \angle DOA$.

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

Explanation: The identities use directed angles. If a conventional angle is used, as shown in Figure 1, $2\angle CEB = \angle COB + \angle DOA$. As shown in Figure 2 , $2\angle CEB = \angle COB - \angle DOA$.