



Example 1 76 : As shown in Figure 3, A, C, K, N share a circle, O is its center, AK intersects CN at B , and the circumscribed circles of $\triangle ACB$ and $\triangle KNB$ intersect at M . Prove: M, K, O, C are four points in a circle, $MB \perp MO$. (1985 International Olympic Examination Questions)

$$\frac{M-K}{M-C} \frac{O-C}{O-K} = \left(\frac{M-B}{M-C} / \frac{A-B}{A-C} \right) \left(\frac{M-K}{M-B} \frac{N-B}{N-K} \right) \frac{N-C}{N-B} \frac{A-B}{K-A} \left(\frac{K-C}{K-O} \frac{A-K}{A-C} \right)$$

$$\left(\frac{N-A}{N-C} \frac{C-O}{C-A} \right) \left(\frac{N-K}{N-A} / \frac{C-K}{C-A} \right),$$

$$\frac{M-O}{M-B} = \frac{\frac{A-B}{A-C} \frac{K-C}{K-O}}{\frac{M-B}{M-C} \frac{M-O}{M-C}} \frac{A-K}{A-B} \left(\frac{K-O}{K-C} \frac{A-C}{A-K} \right)^\circ.$$