



Example 59 : As shown in Figure 3, O is a point inside $\triangle ABC$, the straight line OP is the angle bisector of $\angle AOB$, and the straight line OQ is the angle bisector of $\angle AOC$. Prove: $2\angle QOP = \angle BOC$.

Proof:
$$\frac{\left(\frac{O-Q}{O-P}\right)^2 \frac{P-O}{O-A} \frac{O-A}{O-Q}}{\frac{O-C}{O-B} \frac{P-O}{O-C}} = 1.$$