

Hide Segments

Theorem 51. ( Power of the Point, point outside). Let P be a point outside of a circle. Let QQ' and RR' are two chords intersecting at the point P. Then:

$$|PQ| \cdot |PQ'| = |PR| \cdot |PR'|$$

Proof: Consider  $\triangle PQ'R$  and  $\triangle PR'Q$ .

What can you say about  $\angle PQ'R$  and  $\angle QR'P$ ?

