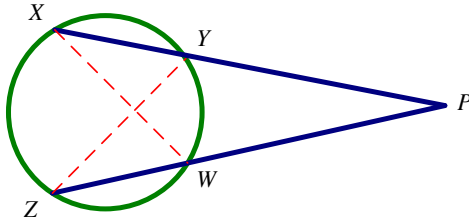


Theorem **If 2 secants are drawn to a circle from an exterior pt, the product of the lengths of one secant segment and its external segment is equal to the product of the other secant and its external segment.**

Given: secants \overline{PX} and \overline{PY}

Prove: $PX \cdot PY = PZ \cdot PW$



Statements	Reasons
1. Draw \overline{XW} and \overline{ZY}	Construction
2. $\angle X \cong \angle Z$	Inscribed \angle , same arcs
3. $\angle P \cong \angle P$	Reflexive
4. $\triangle XPW \sim \triangle ZPY$	AA Postulate
5. $\frac{PX}{PZ} = \frac{PW}{PY}$	$\sim \Delta$'s, sides in proportion
6. $PX \cdot PY = PZ \cdot PW$	Prop of Proportion