

Remember: By definition, once we know two polygons are similar we also know...

1. All other corr \angle 's are \cong

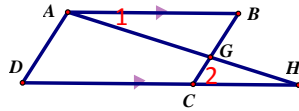
2. All other corr sides are proportional

5) **GIVEN:**

$$\overline{AB} \parallel \overline{DC}$$

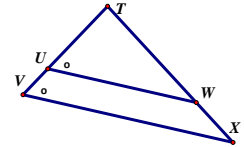
PROVE:

$$GA \cdot GC = GB \cdot GH$$



6) **GIVEN:** $\angle T U W \cong \angle T V X$

$$\text{PROVE: } \frac{TU}{TV} = \frac{TW}{TX}$$



STATEMENT	REASON	STATEMENT	REASON
1) $\overline{AB} \parallel \overline{DC}$	1) Given	1) $\angle T U W \cong \angle T V X$	1) Given
2) $\angle 1 \cong \angle H$ and $\angle 2 \cong \angle B$	2) \parallel lines \rightarrow alt int \angle 's \cong	2) $\angle T \cong \angle T$	2) Reflexive prop.
3) $\triangle B A G \sim \triangle C H G$	3) AA~	3) $\triangle T U W \sim \triangle T V X$	3) AA~
4) $\frac{GA}{GH} = \frac{GB}{GC}$	4) Def of ~ Δ 's	4) $\frac{TU}{TV} = \frac{TW}{TX}$	4) Def of ~ Δ 's
5) $GA \cdot GC = GB \cdot GH$	5) Cross multiplication		