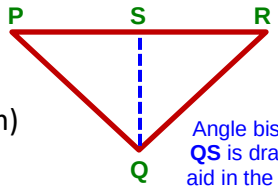
Geometry 1-2 Name _____

Assignment Period _____ Date _____

Geometric Proofs #5 – Congruent Triangles



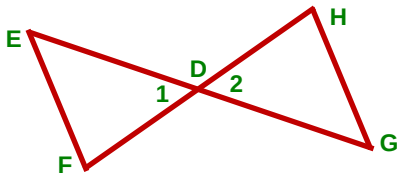
Angle bisector **QS** is drawn to aid in the proof.

Given: ΔPQR **and** $\overline{PQ} \cong \overline{RQ}$ **Prove**: $\angle P \cong \angle R$ (Isosceles Triangle Theorem)

Step	Statement	Step	Reason

Given: $\angle F \cong \angle H$ **and** $\overline{EF} \cong \overline{GH}$

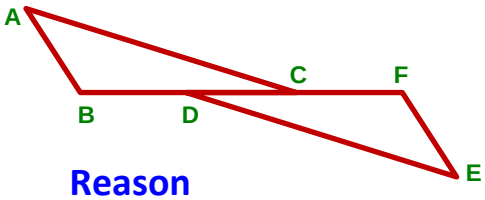
Prove: $\overline{FD} \cong \overline{HD}$



Step	Statement	Step	Reason

Given: $\overline{AB} \cong \overline{EF}$ **and** $\overline{AC} \cong \overline{ED}$ **and** $\overline{BD} \cong \overline{CF}$

Prove: $\angle A \cong \angle E$



Step	Statement	Step	Reason