

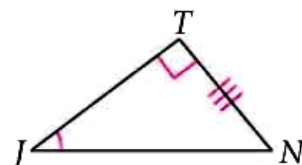
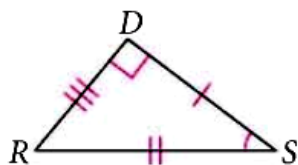
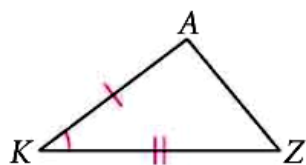
4-7 Using Corresponding Parts of Congruent Triangles

1. Can you conclude that the triangles are congruent? Explain.

a. $\triangle AZK$ and $\triangle DRS$

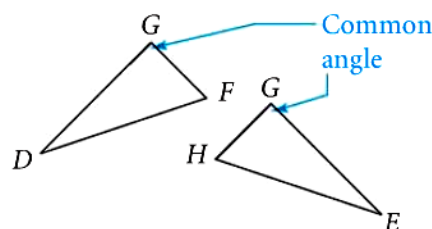
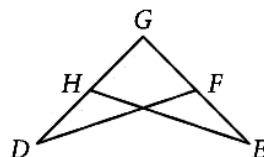
b. $\triangle SDR$ and $\triangle JTN$

c. $\triangle ZKA$ and $\triangle NJT$



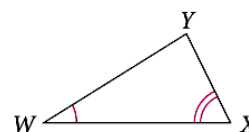
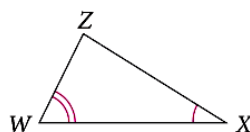
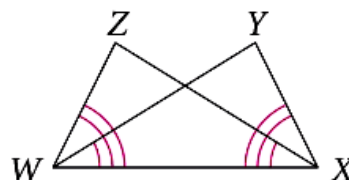
Identifying Common Parts

Separate and redraw $\triangle DFG$ and $\triangle EHG$. Identify the common angle.



Given: $\angle ZXW \cong \angle YWX$, $\angle ZWX \cong \angle YXW$

Prove: $\overline{ZW} \cong \overline{YX}$



Proof:



Given



Reflexive Prop. of \cong



Given



ASA Postulate

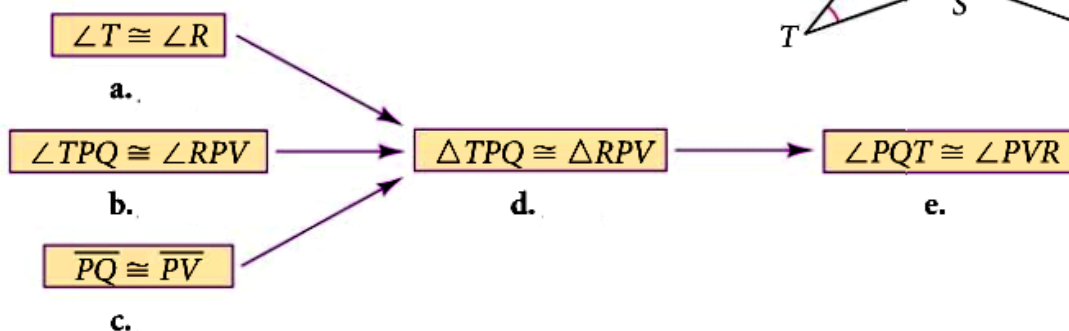
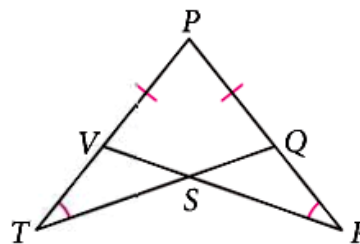


CPCTC

Developing Proof Complete the flow proof.

Given: $\angle T \cong \angle R$, $\overline{PQ} \cong \overline{PV}$

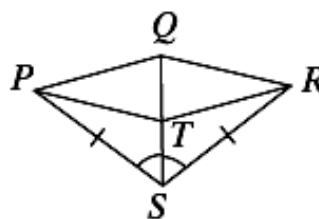
Prove: $\angle PQT \cong \angle PVR$



Write a two-column proof.

Given: $\overline{PS} \cong \overline{RS}$, $\angle PSQ \cong \angle RSQ$

Prove: $\triangle QPT \cong \triangle QRT$

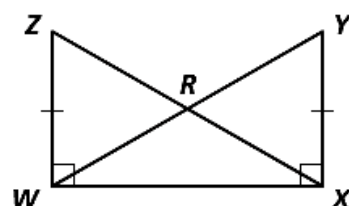


Statements	Reasons
1. 	1. Given
2. $\overline{QS} \cong$ 	2. Reflexive Property of Congruence
3. $\triangle PSQ \cong$ 	3. SAS
4. $\overline{PQ} \cong$ 	4. CPCTC
5. $\angle PQT \cong$ 	5. CPCTC
6. $\overline{QT} \cong$ 	6. Reflexive Property of Congruence
7. $\triangle QPT \cong$ 	7. SAS

Name a pair of overlapping congruent triangles in each diagram. State whether the triangles are congruent by SSS, SAS, ASA, AAS, or HL.

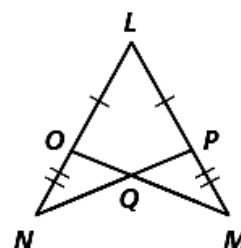
1. _____

Given: $\overline{ZW} \cong \overline{XY}$, $\angle YXW$
and $\angle ZWX$ are right \angle s



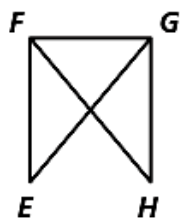
2. _____

Given: $\overline{LP} \cong \overline{LO}$,
 $\overline{PM} \cong \overline{ON}$

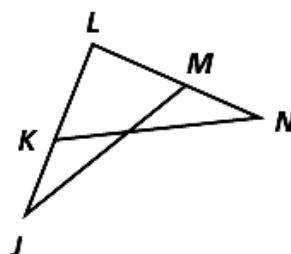


Separate and redraw the indicated triangles. Identify any common angles or sides.

4. $\triangle EFG$ and $\triangle HGF$



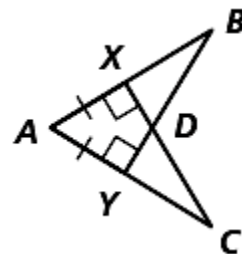
5. $\triangle JML$ and $\triangle NKL$



5. Write a two-column proof.

Given: $\overline{AX} \cong \overline{AY}$, $\overline{CX} \perp \overline{AB}$, $\overline{BY} \perp \overline{AC}$

Prove: $\triangle BYA \cong \triangle CXA$

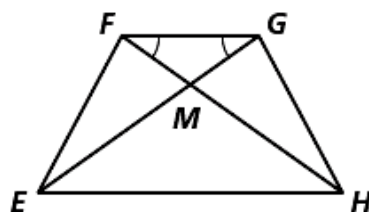


Statements

Reasons

6. Given: $\overline{FH} \cong \overline{GE}$, $\angle HFG \cong \angle EGF$

Prove: $\triangle GEH \cong \triangle FHE$



Statements

Reasons