

Name, Date, Hour:

Key

Learning Target:

4.3: PROVING Δ 's \cong by SSS

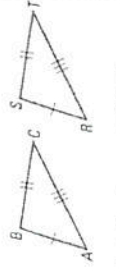
Homework:

DAY 3

BOX 1 - Proving Triangles Congruent

Side-Side-Side
Congruence
Postulate

if 3 sides of
one Δ are \cong
to 3 sides of
another Δ then
the Δ 's are \cong .

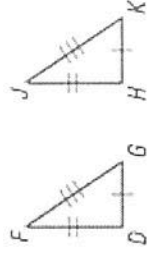


$\Delta ABC \cong \Delta RST$

BOX 2 - Example 1

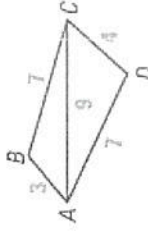
Decide whether the congruence statement is true.

a. $\Delta DFG \cong \Delta IHK$



yes.

b. $\Delta ACB \cong \Delta CAD$



No, $\overline{AB} \not\cong \overline{CD}$

BOX 3 - Example 2

Are \overline{CA} and \overline{KJ} corresponding sides, corresponding angles or neither?

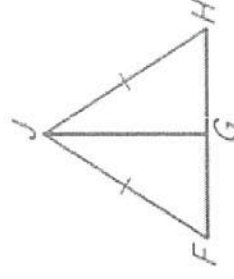


neither

BOX 4 - Example 3 - PROOFS!

Given: G is the midpoint of \overline{FH} .
Prove: $\Delta FGJ \cong \Delta HGJ$

S	R
① G is mdpt of \overline{FH}	① Given
② $\overline{JF} \cong \overline{JH}$	② Given
③ $\overline{FG} \cong \overline{HG}$	③ Def of mdpt
④ $\overline{JG} \cong \overline{JG}$	④ Reflexive Prop of \cong
⑤ $\Delta FGJ \cong \Delta HGJ$	⑤ SSS



BOX 5 - Example 4 - ANOTHER PROOF! :)

Given: $\overline{WX} \cong \overline{VZ}$, $\overline{WY} \cong \overline{VY}$, $\overline{YZ} \cong \overline{YX}$
 Prove: $\triangle VWX \cong \triangle WVZ$

S	R
① $\overline{WX} \cong \overline{VZ}$ $\overline{WY} \cong \overline{VY}$ $\overline{YZ} \cong \overline{YX}$	① Given
② $\overline{WY} + \overline{YZ} = \overline{WZ}$ $\overline{VY} + \overline{YX} = \overline{VX}$	② seg. Add. Post
③ $\overline{VY} + \overline{YX} = \overline{WZ}$	③ Substitution
④ $\overline{VX} = \overline{WZ}$	④ substitution
⑤ $\overline{VX} \cong \overline{WZ}$	⑤ Def of \cong seg.
⑥ $\overline{WV} \cong \overline{VW}$	⑥ Reflexive Prop of \cong
⑦ $\triangle VWX \cong \triangle WVZ$	⑦ SSS

