Geometry

Name _____

Per. _____ Date _____

4.6 (CPCTC) Worksheet

1. What does CPCTC stand for? _____

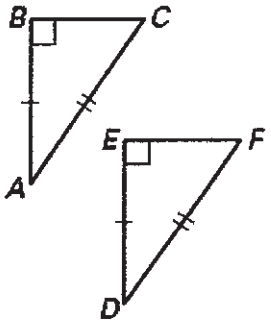
_____

2. What must you show in your prove BEFORE using CPCTC? _____

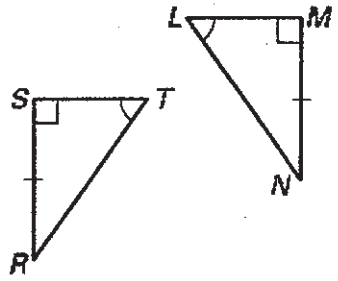
3. What do you use CPCTC for in a proof? _____

Tell how the triangles are congruent (SSS, SAS, ASA, AAS, or HL) if you want to state the given segments or angles congruent. BE CAREFUL....YOU DON'T USE THOSE GIVEN SEGMENTS OR ANGLES TO HELP GET YOUR ANSWER!!!

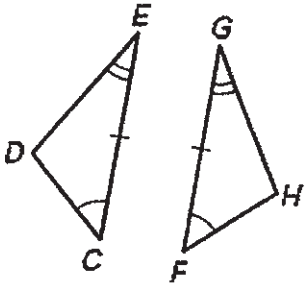
5. $\angle C \cong \angle F$



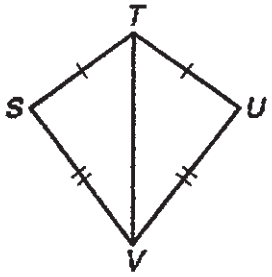
6. $\overline{RT} \cong \overline{LN}$



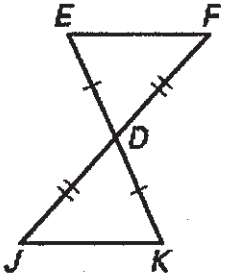
7. $\angle D \cong \angle H$



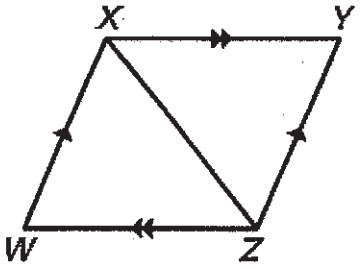
8. $\angle STV \cong \angle UTV$



9. $\overline{EF} \cong \overline{KJ}$



10. $\overline{XY} \cong \overline{ZW}$



Match each statement to its correct congruency method at the right.

_____**11.** Right triangles that have a pair of hypotenuses and a pair of legs congruent.

_____**12.** Triangles that have 2 pairs of sides congruent and 1 pair of included angles congruent.

_____ **13.** Triangles that have 2 pairs of angles congruent and 1 pair of non-included sides congruent.

_____ **14.** Triangles that have 3 pairs of sides congruent.

_____ **15.** Triangles that have 2 pairs of angles congruent and 1 pair of included sides congruent.

A. SSS

B. SAS

C. ASA

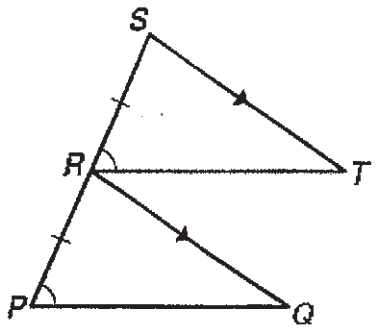
D. AAS

E. HL

Complete each proof.

16. Given: $\overline{ST} \parallel \overline{RQ}$, $\overline{SR} \cong \overline{RP}$, $\angle SRT \cong \angle RPQ$

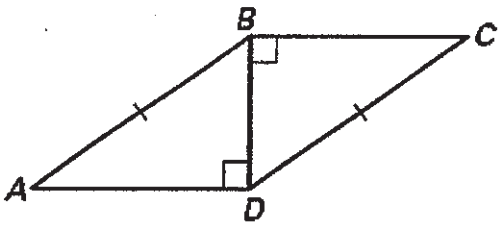
Prove: $\overline{RT} \cong \overline{PQ}$



Statements	Reasons
1.	**1.**
2. $\angle RST \cong \angle PRQ$	**2.**
3. $\Delta RST \cong \Delta PRQ$	**3.**
4.	**4.**

17. Given: $\overline{AB} \cong \overline{CD}$, $\angle ADB$ *and* $\angle DBC$ are right angles

Prove: $\angle ABD \cong \angle CDB$



Statements	Reasons
1.	**1.**
2.	**2.** Reflexive
3.	**3.** HL
4.	**4.**