

LESSON  
4.4

**Practice C**

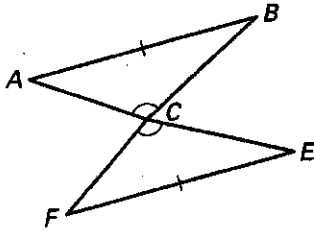
For use with pages 240-247

Congruent w.s. # 4/Key

LESSON 4.4

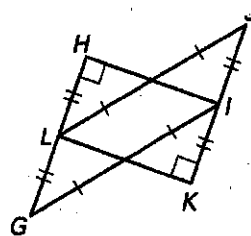
Decide whether enough information is given to prove that the triangles are congruent. If there is enough information, state the congruence postulate or theorem you would use.

1.  $\triangle ABC, \triangle FEC$



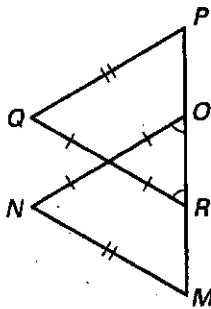
Not enough info

2.  $\triangle GHI, \triangle JKL$



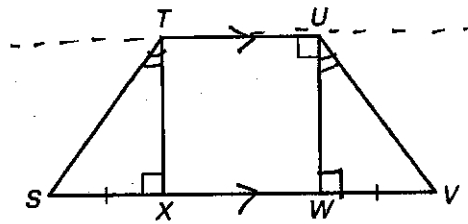
HL

3.  $\triangle MNO, \triangle PQR$



NO

4.  $\triangle STX, \triangle VUW$



AAS

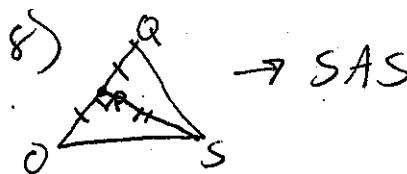
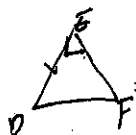
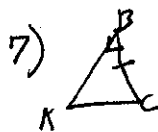
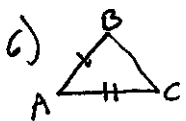
State the third congruence that must be given to prove that  $\triangle ABC \cong \triangle FED$  using the indicated postulate or theorem.

5. GIVEN:  $\overline{BC} \cong \overline{ED}, \overline{AC} \cong \overline{FD}, \angle A \cong \angle D$   
Use the SAS Congruence Postulate.

6. GIVEN:  $\overline{AB} \cong \overline{FE}, \overline{AC} \cong \overline{FD}, \overline{BC} \cong \overline{ED}$   
Use the SSS Congruence Postulate.

7. GIVEN:  $\overline{BC} \cong \overline{ED}, \angle B$  is a right angle and  $\angle B \cong \angle E, \overline{AC} \cong \overline{FD}$   
Use the HL Congruence Theorem.

8. Suppose P is the midpoint of  $\overline{OQ}$  in  $\triangle OQS$ . If  $\overline{SP} \perp \overline{OQ}$ , explain why  $\triangle SPO \cong \triangle SPQ$ .



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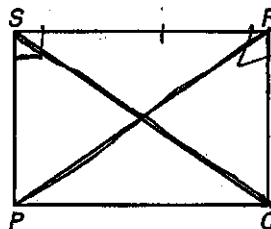
**Practice C** *continued*  
For use with pages 240-247

Key

9. **Proof** Complete the proof.

**GIVEN:**  $\overline{QS} \cong \overline{PR}$ ,  $\overline{PS} \perp \overline{RS}$ ,  $\overline{QR} \perp \overline{RS}$

**PROVE:**  $\triangle PRS \cong \triangle QSR$



**Statements**

**Reasons**

1.  $\overline{QS} \cong \overline{PR}$

1. Given

2.  $\overline{PS} \perp \overline{RS}$ ,  $\overline{QR} \perp \overline{RS}$

2. Given

3.  $\angle S$  and  $\angle R$  are right angles.

3. ? def. of right angles

4.  $\angle S \cong \angle R = 90^\circ$

4. Definition of a right triangle

5.  $\overline{RS} \cong \overline{SR}$

5. ? symmetric property

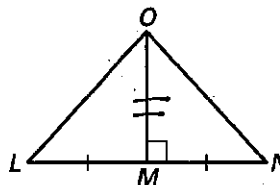
6.  $\triangle PRS \cong \triangle QSR$

6. ? HL

10. **Proof** Complete the proof.

**GIVEN:**  $\overline{OM} \perp \overline{LN}$ ,  $\overline{ML} \cong \overline{MN}$

**PROVE:**  $\triangle OML \cong \triangle OMN$



**Statements**

**Reasons**

1.  $\overline{OM} \perp \overline{LN}$

1. Given

2. ? D-

2. If 2 angles are  $\perp$ , then they form 4 right  $\angle$ s.

3.  $\angle OML \cong \angle OMN$

3. Right Angle Congruence Theorem

4.  $\overline{ML} \cong \overline{MN}$

4. ? Given

5.  $\overline{OM} \cong \overline{OM}$

5. ? Reflexive property

6.  $\triangle OML \cong \triangle OMN$

6. ? SAS