Name _____ Date _____

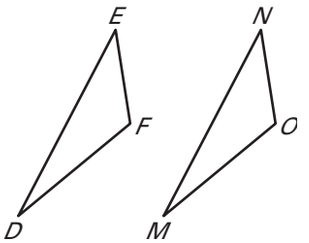
LESSON 4.5

Practice B

For use with pages 249–255

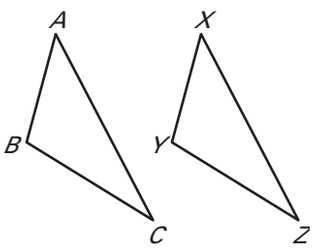
State the third congruence that is needed to prove that $\triangle DEF \cong \triangle MNO$ using the given postulate or theorem.

1. **GIVEN:** $\overline{DE} \cong \overline{MN}$, $\angle M \cong \angle D$, $\_?\_ \cong \_?\_$
   Use the SAS Congruence Postulate.
2. **GIVEN:** $\overline{FE} \cong \overline{ON}$, $\angle F \cong \angle O$, $\_?\_ \cong \_?\_$
   Use the AAS Congruence Theorem.
3. **GIVEN:** $\overline{DF} \cong \overline{MO}$, $\angle F \cong \angle O$, $\_?\_ \cong \_?\_$
   Use the ASA Congruence Postulate.



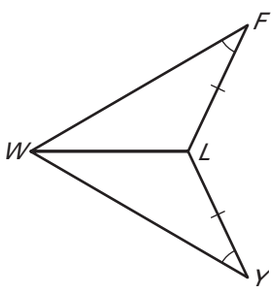
State the third congruence that is needed to prove that $\triangle ABC \cong \triangle XYZ$ using the given postulate or theorem.

4. **GIVEN:** $\angle A \cong \angle X$, $\angle B \cong \angle Y$, $\_?\_ \cong \_?\_$
   Use the AAS Congruence Theorem.
5. **GIVEN:** $\angle A \cong \angle X$, $\overline{AB} \cong \overline{XY}$, $\_?\_ \cong \_?\_$
   Use the ASA Congruence Postulate.
6. **GIVEN:** $\overline{BC} \cong \overline{YZ}$, $\angle C \cong \angle Z$, $\_?\_ \cong \_?\_$
   Use the AAS Congruence Theorem.



Is it possible to prove that the triangles are congruent? If so, state the postulate(s) or theorem(s) you would use.

7.



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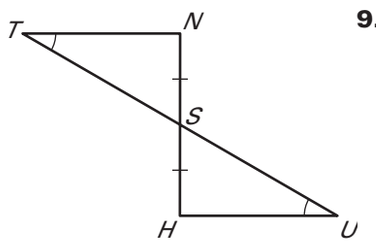

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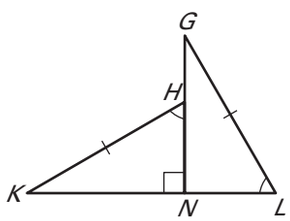


Tell whether you can use the given information to determine whether $\triangle JRM \cong \triangle XYZ$. *Explain* your reasoning.

10. $\overline{JM} \cong \overline{XZ}$, $\angle M \cong \angle Z$, $\angle R \cong \angle Y$
11. $\overline{JM} \cong \overline{XZ}$, $\overline{JR} \cong \overline{XY}$, $\angle J \cong \angle X$
12. $\angle J \cong \angle X$, $\angle M \cong \angle Z$, $\angle R \cong \angle Y$
13. $\angle M \cong \angle Z$, $\angle R \cong \angle Y$, $\overline{JM} \cong \overline{XY}$

Name _____ Date _____

LESSON 4.5

Practice B *continued*

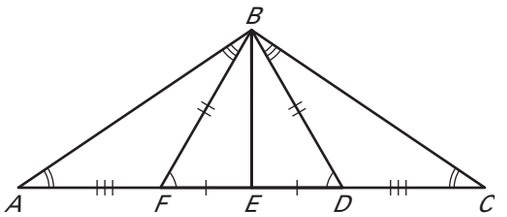
For use with pages 249–255

Explain how you can prove that the indicated triangles are congruent using the given postulate or theorem.

14. $\triangle BEF \cong \triangle BED$ by SAS

15. $\triangle ADB \cong \triangle CFB$ by ASA

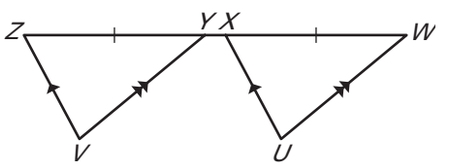
16. $\triangle AFB \cong \triangle CDB$ by AAS



17. **Proof** Complete the proof.

GIVEN: $\overline{WU} \parallel \overline{YV}$, $\overline{XU} \parallel \overline{ZV}$, $\overline{WX} \cong \overline{YZ}$

PROVE: $\triangle WXU \cong \triangle YZV$



Statements	Reasons
1. $\overline{WU} \parallel \overline{YV}$	**1.** ?
2. $\angle UWX \cong \angle VYZ$	**2.** ?
3. $\overline{XU} \parallel \overline{ZV}$	**3.** ?
4. $\angle UXW \cong \angle VZY$	**4.** ?
5. $\overline{WX} \cong \overline{YZ}$	**5.** ?
6. $\triangle WXU \cong \triangle YZV$	**6.** ?

18. **Proof** Write a proof.

GIVEN: $\angle B \cong \angle D$, $\angle DAE \cong \angle BEA$

PROVE: $\triangle ABC \cong \triangle EDC$