

Name _____

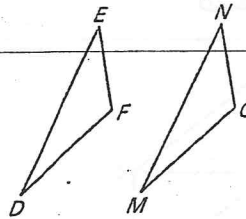
Date _____

LESSON
4.5**Practice**

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: $\overline{DE} \cong \overline{MN}$, $\angle M \cong \angle D$, $\underline{\quad} \cong \underline{\quad}$
Use the SAS Congruence Postulate.

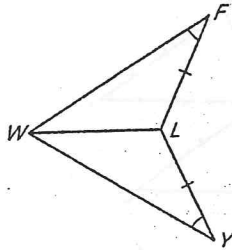


2. GIVEN: $\overline{FE} \cong \overline{ON}$, $\angle F \cong \angle O$, $\underline{\quad} \cong \underline{\quad}$
Use the AAS Congruence Theorem.

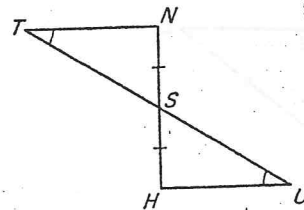
3. GIVEN: $\overline{DF} \cong \overline{MO}$, $\angle F \cong \angle O$, $\underline{\quad} \cong \underline{\quad}$
Use the ASA Congruence Postulate.

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

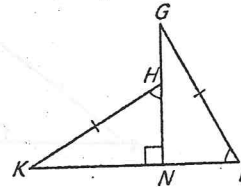
7.



8.



9.



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

10. $\overline{JM} \cong \overline{XZ}$, $\angle M \cong \angle Z$, $\angle R \cong \angle Y$

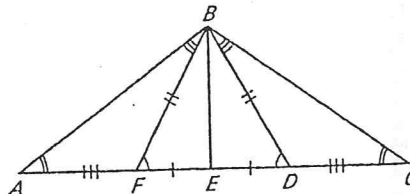
11. $\overline{JM} \cong \overline{XZ}$, $\overline{JR} \cong \overline{XY}$, $\angle J \cong \angle X$

12. $\angle J \cong \angle X$, $\angle M \cong \angle Z$, $\angle R \cong \angle Y$

13. $\angle M \cong \angle Z$, $\angle R \cong \angle Y$, $\overline{JM} \cong \overline{XY}$

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

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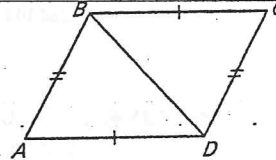
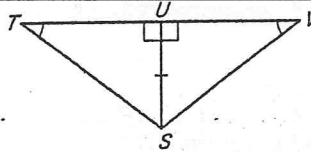
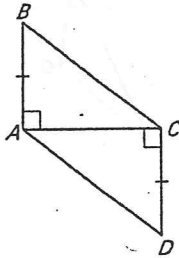
LESSON 4.6 Practice
For use with pages 256-263

Tell which triangles you can show are congruent in order to prove the statement. What postulate or theorem would you use?

1. $\overline{BC} \cong \overline{AD}$

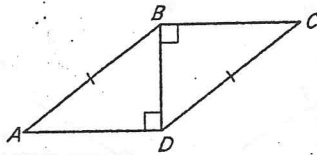
2. $\angle TSU \cong \angle VSU$

3. $\angle ADB \cong \angle CBD$

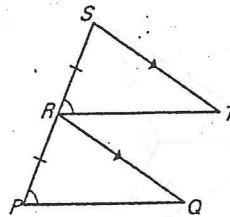


Use the diagram to write a plan for a proof.

7. PROVE: $\angle DAB \cong \angle BCD$



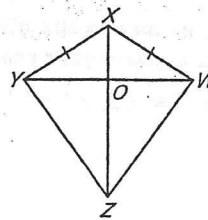
8. PROVE: $\overline{ST} \cong \overline{RQ}$



11. Proof Complete the proof.

GIVEN: $\overline{YX} \cong \overline{WX}$
 \overline{ZX} bisects $\angle YXW$.

PROVE: $\overline{YZ} \cong \overline{WZ}$



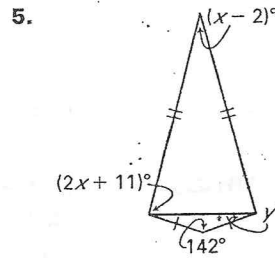
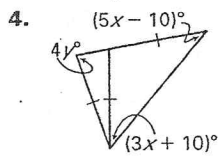
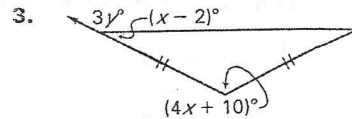
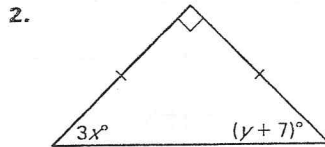
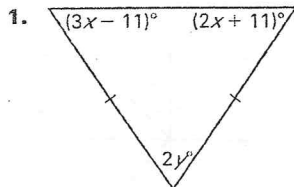
Statements	Reasons
1. $\overline{YX} \cong \overline{WX}$	1. ?
2. \overline{ZX} bisects $\angle YXW$.	2. ?
3. $\angle YXZ \cong \angle WXZ$	3. ?
4. $\overline{XZ} \cong \overline{XZ}$	4. ?
5. $\triangle YXZ \cong \triangle WXZ$	5. ?
6. $\overline{YZ} \cong \overline{WZ}$	6. ?

Name _____

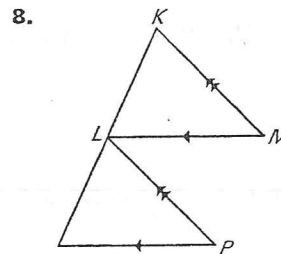
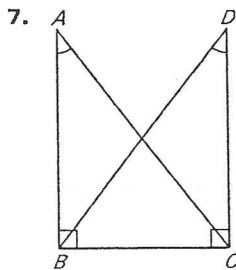
Date _____

LESSON 4.7 Practice
For use with pages 264–270

Find the values of x and y .



Decide whether enough information is given to prove that the triangles are congruent. *Explain* your answer.

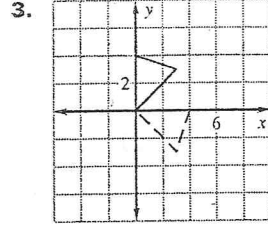
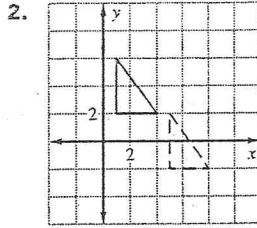
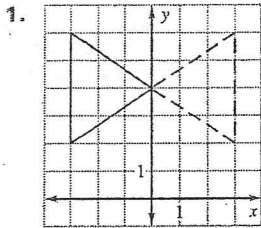


Name _____

Date _____

LESSON 4.8 Practice
For use with pages 271-279

Name the type of transformation shown.



4. Figure $ABCD$ has vertices $A(1, 2)$, $B(4, -3)$, $C(5, 5)$, and $D(4, 7)$.

the translation $(x, y) \rightarrow (x + 5, y + 3)$.

LIST THE ORDERED PAIRS

- A'
 B'
 C'
 D'

5. Figure $ABCD$ has vertices $A(-2, 3)$, $B(1, 7)$, $C(6, 2)$, and $D(-1, -2)$.

the translation $(x, y) \rightarrow (x - 2, y - 4)$.

LIST THE ORDERED PAIRS

- A'
 B'
 C'
 D'

A point on an image and the translation are given. Find the corresponding point on the original figure.

19. Point on image: $(2, -4)$; translation: $(x, y) \rightarrow (x - 4, y + 3)$

20. Point on image: $(-5, -7)$; translation: $(x, y) \rightarrow (x, -y)$

21. Verifying Congruence Verify that $\triangle DEF$ is a congruence transformation of $\triangle ABC$. Explain your reasoning.

