Name _____ Date _____

LESSON 2.6

Practice A

For use with pages 112–119

If you turn this in on time: do the odds.
If you turn this in late or
you are doing it over: do the evens.

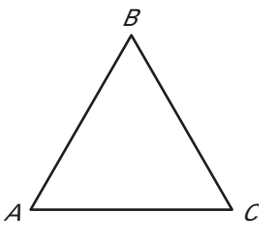
Student score:
How well do you feel you understand this learning target:
A
B
C
D
F

Teacher Score:

In Exercises 1–3, complete the proof.

1. **GIVEN:** $m\angle A = m\angle B, m\angle B = m\angle C$

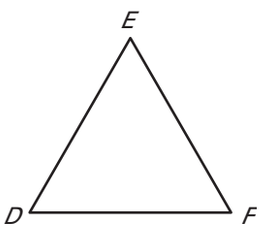
PROVE: $\angle A \cong \angle C$



Statements	Reasons
1. $m\angle A = m\angle B, m\angle B = m\angle C$	**1.** Given
2. $m\angle A = m\angle C$	**2.** ?
3. ?	**3.** Definition of congruent angles

2. **GIVEN:** $DE = EF, EF = DF$

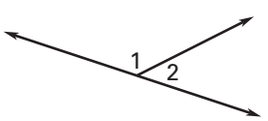
PROVE: $\overline{DF} \cong \overline{DE}$



Statements	Reasons
1. $DE = EF, EF = DF$	**1.** ?
2. ?	**2.** Transitive Property of Equality
3. $DF = DE$	**3.** ?
4. ?	**4.** Definition of congruent segments

3. **GIVEN:** $\angle 1$ and $\angle 2$ are a linear pair.

PROVE: $m\angle 1 = 180° - m\angle 2$



Statements	Reasons
1. ?	**1.** Given
2. ?	**2.** The angles in a linear pair are supplementary angles.
3. $m\angle 1 + m\angle 2 = 180°$	**3.** ?
4. ?	**4.** Subtraction Property of Equality

Name _____ Date _____

LESSON 2.6

Practice A *continued*

For use with pages 112–119

Use the property to complete the statement.

4. Reflexive Property of Congruence: __?__ $\cong \angle 4$

5. Symmetric Property of Congruence: If __?__ $\cong$ __?__, then $\overline{CD} \cong \overline{DX}$.

In Exercises 6–9, name the property illustrated by the statement.

6. If $\angle 1 \cong \angle 2$ and $\angle 2 \cong \angle 4$, then $\angle 1 \cong \angle 4$.

7. $\overline{XY} \cong \overline{XY}$

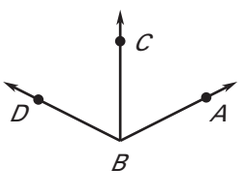
8. If $\angle CDE \cong \angle RST$, then $\angle RST \cong \angle CDE$.

9. If $\overline{AB} \cong \overline{BC}$, then $\overline{BC} \cong \overline{AB}$.

10. Sketch a diagram that represents the following information.

$\angle ABC$ and $\angle CBD$ are adjacent angles.
$\angle ABD$ and $\angle DBE$ are a linear pair.

11. Use the given information and the diagram to prove the statement.



GIVEN: $2m\angle ABC = m\angle ABD$

PROVE: $\angle ABC \cong \angle CBD$

Statements	Reasons

12. Bicycle Tour You take part in a three day bicycle tour. On the first day, you ride 95 miles. On the third (final) day, you also ride 95 miles. Use the following steps to prove that the distance you ride in the first two days is equal to the distance that you ride in the last two days.

a. Draw a diagram for the situation by using a line segment to represent the total distance of the three days and dividing the line segment into three parts that represent the daily distances.

b. State what is given and what is to be proved.

c. Write a two-column proof.