Name: _____ Date: _____ Row: _____ Period: _____

Assignment #: _____

Some Ways to Prove Triangles Congruent

For use after Section 4–2

Suppose $\triangle RED \cong \triangle SUN$. Complete.

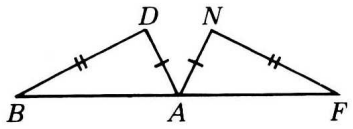
1. $\angle E \cong \angle$ _____
2. _____ $= m\angle N$
3. $\overline{RE} \cong$ _____
4. $\overline{ED} \cong$ _____
5. $\triangle DRE \cong$ _____
6. _____ $\cong \triangle UNS$

The two triangles shown are congruent. Complete.

7. $\triangle BAD \cong$ _____
8. $\angle N \cong$ _____, because _____

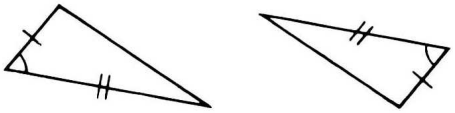
_____

9. _____ $\cong \overline{FA}$; A is the midpoint of _____.



Exs. 7–9

Can the two triangles be proved congruent? If so, what postulate can be used?

10. 

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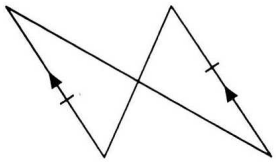
11. 

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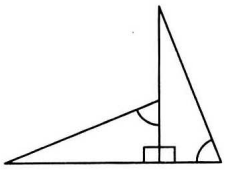
12. 

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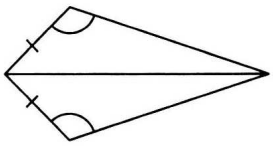
13. 

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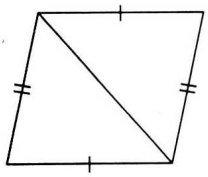
14. 

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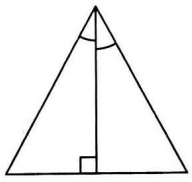
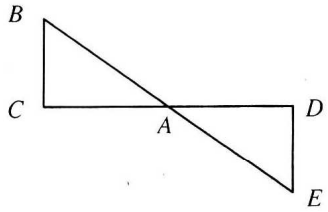
15. 

_____

Supply the missing reasons in the proof.

16. Given: $\overline{CA} \cong \overline{DA}$; $\overline{BA} \cong \overline{EA}$
Prove: $\triangle BCA \cong \triangle EDA$



Proof:

Statements	Reasons
1. $\overline{CA} \cong \overline{DA}$; $\overline{BA} \cong \overline{EA}$	1. _____
2. $\angle BAC \cong \angle EAD$	2. _____
3. $\triangle BCA \cong \triangle EDA$	3. _____

Using Congruent Triangles

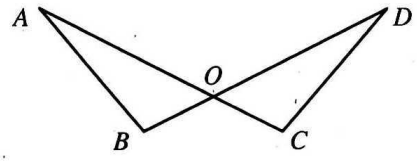
For use after Section 4–3

Supply the missing reasons in each proof.

1. Given: $\overline{BO} \cong \overline{CO}$; $\overline{AO} \cong \overline{DO}$

Prove: $\angle B \cong \angle C$

Proof:

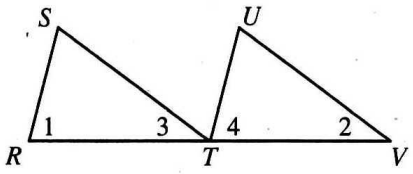


Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____

2. Given: $\overline{SR} \cong \overline{UT}$; $\overline{SR} \parallel \overline{UT}$; $\angle S \cong \angle U$

Prove: $\overline{ST} \parallel \overline{UV}$

Proof:

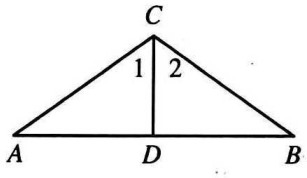


Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

3. Given: D is the midpoint of $\overline{AB}$; $\overline{CA} \cong \overline{CB}$

Prove: $\overrightarrow{CD}$ bisects $\angle ACB$.

Proof:



Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____