

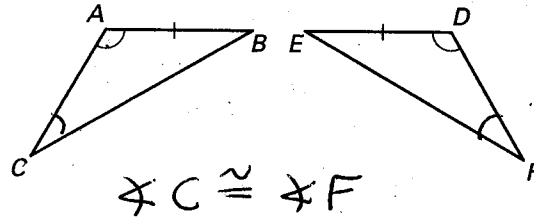
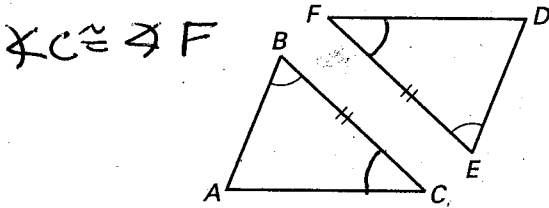
Practice A

For use with pages 220-227

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

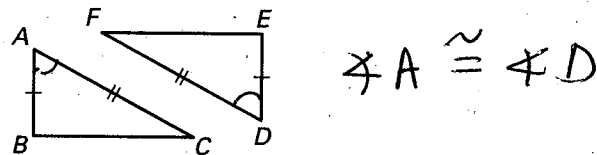
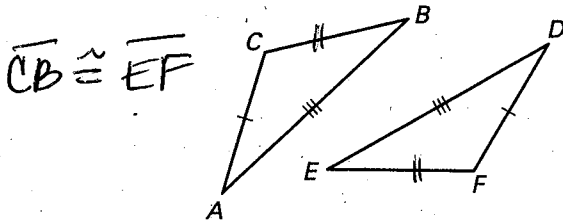
1. ASA Congruence Postulate

2. AAS Congruence Theorem



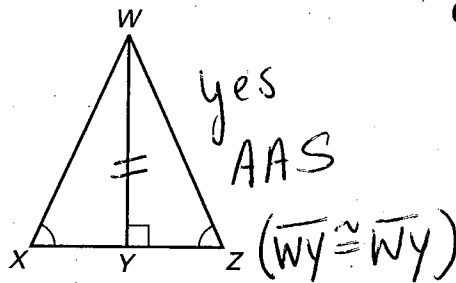
3. SSS Congruence Postulate

4. SAS Congruence Postulate

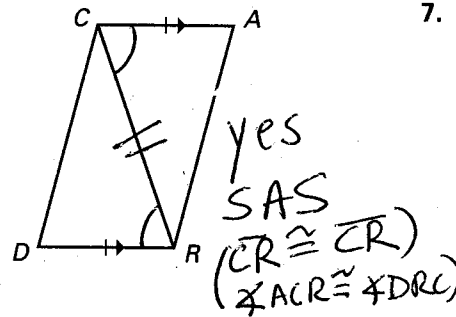


Is it possible to prove that the triangles are congruent? If so, state the postulate or theorem you would use. Explain your reasoning.

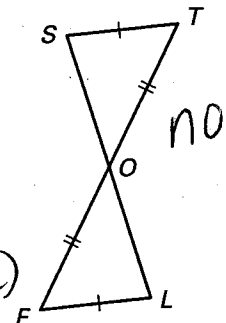
5.



6.



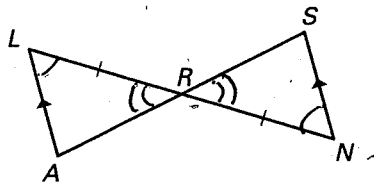
7.



Complete the proof by supplying the reasons.

8. Given: $\overline{LA} \parallel \overline{SN}$, $\overline{LR} \cong \overline{NR}$

Prove: $\triangle LAR \cong \triangle NSR$



Statements

Reasons

1. $\overline{LA} \parallel \overline{SN}$

1. ? Given

2. $\angle L \cong \angle N$

2. ? Alt Int \angle Theorem

3. $\overline{LR} \cong \overline{NR}$

3. ? Given

4. $\angle LRA \cong \angle NRS$

4. ? Vertical \angle are \cong

5. $\triangle LAR \cong \triangle NSR$

5. ? ASA

Write a two-column or a paragraph proof.

9. Given: $\overline{AB} \parallel \overline{CD}$, $\overline{AC} \parallel \overline{BD}$

Prove: $\triangle ABC \cong \triangle DCB$

Statement	Reason
1. $\overline{AB} \parallel \overline{CD}$	1. Given
2. $\angle ACB \cong \angle DBC$	2. Alt. Int \angle Theorem
3. $\overline{CB} \cong \overline{CB}$	3. Reflexiv
4. $\triangle ABC \cong \triangle DCB$	4. ASA

Practice B

For use with pages 220-227

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

1. Given: $\overline{DE} \cong \overline{MN}$
 $\angle M \cong \angle D$

Method: SAS Congruence Postulate

$\overline{DF} \cong \overline{MO}$

2. Given: $\overline{FE} \cong \overline{ON}$
 $\angle F \cong \angle O$

Method: AAS Congruence Theorem

$\angle D \cong \angle M$

3. Given: $\overline{DF} \cong \overline{MO}$
 $\angle F \cong \angle O$

Method: ASA Congruence Postulate

$\angle D \cong \angle M$

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

4. Given: $\angle A \cong \angle X$
 $\angle B \cong \angle Y$

Method: AAS Congruence Theorem

$\overline{BC} \cong \overline{YZ}$

5. Given: $\angle A \cong \angle X$
 $\overline{AB} \cong \overline{XY}$

Method: ASA Congruence Postulate

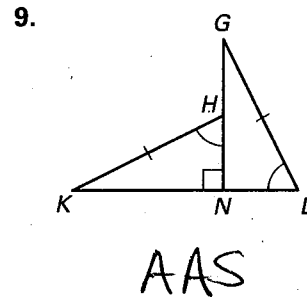
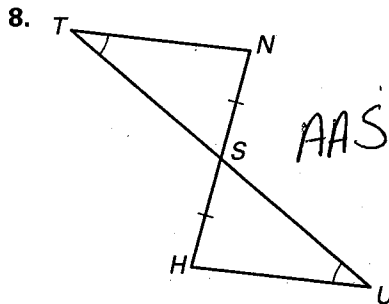
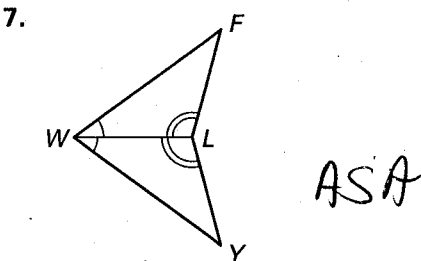
$\angle B \cong \angle Y$

6. Given: $\angle C \cong \angle Z$
 $\overline{BC} \cong \overline{YZ}$

Method: AAS Congruence Theorem

$\angle A \cong \angle X$

Is it possible to prove that the triangles are congruent? If so, state the postulate or theorem you would use. Explain your reasoning.



Write a two-column or a paragraph proof.

10. Given: B is the midpoint of \overline{AE}
 Prove: $\triangle ABD \cong \triangle EBC$

Statement	Reason
1. B is mdpt of \overline{AE}	1. Given
2. $\overline{AB} \cong \overline{EB}$ $\overline{DB} \cong \overline{CB}$	2. def. of mdpt
3. $\triangle ABD \cong \triangle EBC$	3. Vert. \angle are \cong

11. Given: $\overline{AB} \parallel \overline{CD}$, $\overline{AB} \cong \overline{CD}$
 Prove: $\triangle ABC \cong \triangle DCB$

Statement	Reason
1. $\overline{AB} \parallel \overline{CD}$	1. Given
2. $\overline{CB} \cong \overline{CB}$	2. Reflexive Prop of \cong
3. $\angle ABC \cong \angle DCB$	3. Alt. Int. \angle Theorem
4. $\triangle ABC \cong \triangle DCB$	4. ASA

12. Given: $\overline{WU} \parallel \overline{YV}$, $\overline{XU} \parallel \overline{ZV}$
 $\overline{WX} \cong \overline{YZ}$
 Prove: $\triangle WXU \cong \triangle YZV$

Statement	Reason
1. $\overline{WU} \parallel \overline{YV}$, $\overline{XU} \parallel \overline{ZV}$	1. Given
2. $\angle WZX \cong \angle YXZ$	2. Corr. \angle Post
3. $\angle WZX \cong \angle YXZ$	3. Corr. \angle Post
4. $\triangle WXU \cong \triangle YZV$	4. ASA