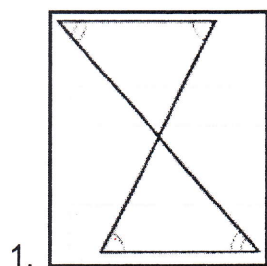
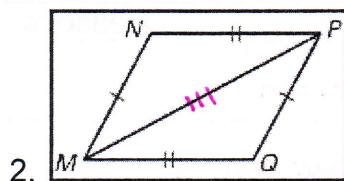


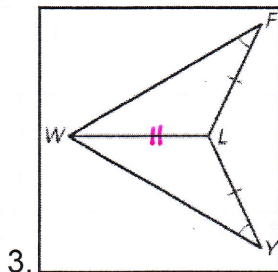
Can the triangles be proven congruent with the information given in the diagram? If so, state the postulate or theorem you would use. If not, why not?



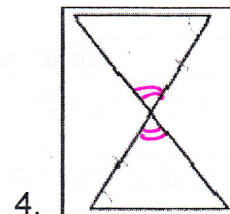
no, no AAA



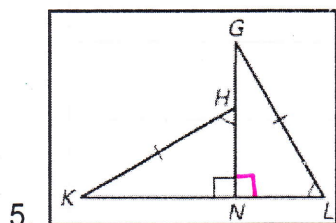
yes, SSS



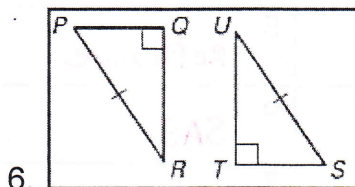
no, no SSA



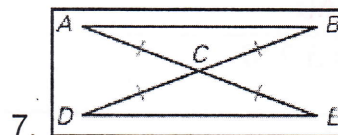
yes, ASA



yes, AAS



no



yes, SAS

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

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

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

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

$\angle D \cong \angle M$

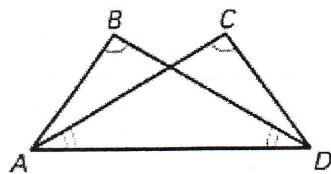
10. **GIVEN:**  $DF \cong MO$ ,  $\angle F \cong \angle O$ ,  $\underline{\quad} \cong \underline{\quad}$   
 Use the ASA Congruence Postulate.

$\angle D \cong \angle M$

11. Write a proof. Use additional paper.

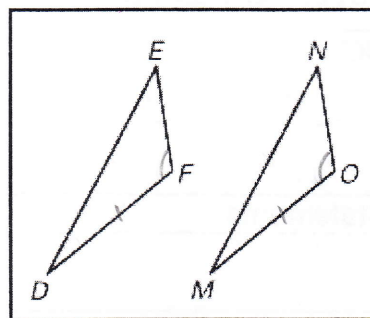
**GIVEN:**  $\angle CAD \cong \angle BDA$ ,  $\angle B \cong \angle C$

**PROVE:**  $\triangle CDA \cong \triangle BAD$



1.  $\angle CAD \cong \angle BDA$
2.  $\angle B \cong \angle C$
3.  $\overline{AD} \cong \overline{AD}$
4.  $\triangle CDA \cong \triangle BAD$

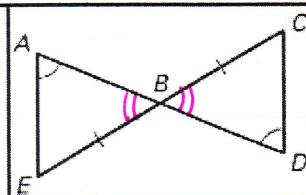
1. Given
2. Given
3. Reflexive
4. AAS



12. Write a proof. Use additional paper.

**GIVEN:**  $BE \cong BC$ ,  $\angle A \cong \angle D$

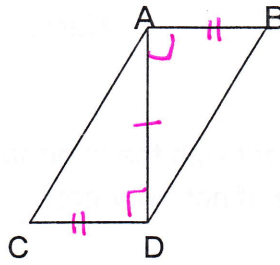
**PROVE:**  $\triangle ABE \cong \triangle DBC$



1.  $\overline{BE} \cong \overline{BC}$
2.  $\angle A \cong \angle D$
3.  $\angle ABE \cong \angle DBC$
4.  $\triangle ABE \cong \triangle DBC$

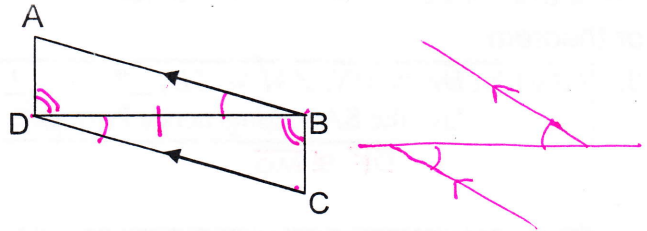
1. Given
2. Given
3. Vertical  $\angle$ s are  $\cong$
4. AAS

13. **Given:**  $\overline{AB} \perp \overline{AD}$ ,  $\overline{AD} \perp \overline{CD}$ ,  $\overline{AB} \cong \overline{CD}$   
**Prove:**  $\overline{CA} \cong \overline{BD}$



Statements	Reasons
1. $\overline{AB} \perp \overline{AD}$ , $\overline{AD} \perp \overline{CD}$	1. Given
2. $\angle ADC$ and $\angle DAB$ are right $\angle$ s	2. Def. of $\perp$
3. $\angle ADC \cong \angle DAB$	3. All rt. $\angle$ s are $\cong$
4. $\overline{AB} \cong \overline{CD}$	4. Given
5. $\overline{AD} \cong \overline{AD}$	5. Reflexive
6. $\triangle ADC \cong \triangle DAB$	6. SAS
7. $\overline{CA} \cong \overline{BD}$	7. CPCTC

14. **Given:**  $\overline{AB} \parallel \overline{DC}$ ,  $\angle ADB \cong \angle CBD$   
**Prove:**  $\overline{AB} \cong \overline{DC}$



Statements	Reasons
1. $\overline{AB} \parallel \overline{DC}$	1. Given
2. $\angle ABD \cong \angle BDC$	2. If $\parallel$ lines are cut by a transversal, then alt. int. $\angle$ s are $\cong$
3. $\angle ADB \cong \angle CBD$	3. Given
4. $\overline{DB} \cong \overline{DB}$	4. Reflexive
5. $\triangle ADB \cong \triangle CBD$	5. ASA
6. $\overline{AB} \cong \overline{DC}$	6. CPCTC