

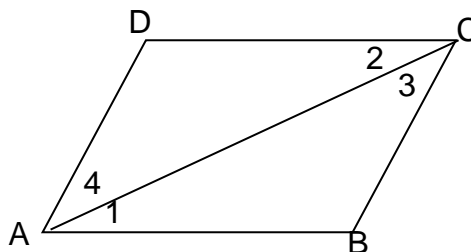
NAME \_\_\_\_\_ DATE \_\_\_\_\_ PERIOD \_\_\_\_\_

**PROVING TRIANGLES CONGRUENT USING SSS, SAS, ASA, AAS, HL**

Prove each from the given information.

1) GIVEN:  $\overline{AD} \cong \overline{BC}$ ;  $\angle 3 \cong \angle 4$

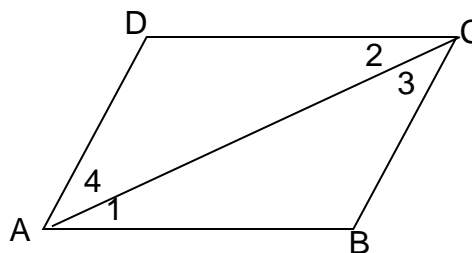
PROVE:  $\triangle ABC \cong \triangle CDA$



STATEMENTS	REASONS
1. $AD \cong BC$	1.
2.	2. Given
3. $\overline{AC} \cong \overline{AC}$	3.
4. $\triangle ABC \cong \triangle CDA$	4.

2) GIVEN:  $\overline{AB} \parallel \overline{DC}$ ;  $\overline{AB} \cong \overline{CD}$

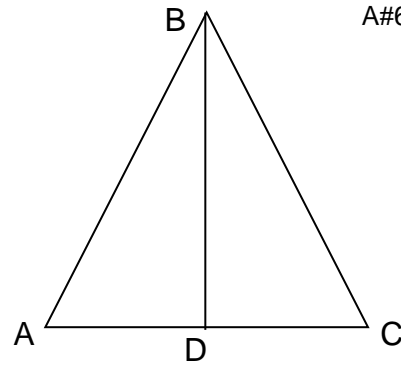
PROVE:  $\triangle ABC \cong \triangle CDA$



STATEMENTS	REASONS
1.	1. Given
2. $AB \cong CD$	2.
3. $\angle 2 \cong \angle 1$	3.
4. $AC \cong CA$	4.
5.	5.

- 3) GIVEN: D is the midpoint of  $\overline{AC}$ ;  
 $\angle ADB$  and  $\angle CDB$  are right angles  
 $\overline{AB} \cong \overline{CB}$

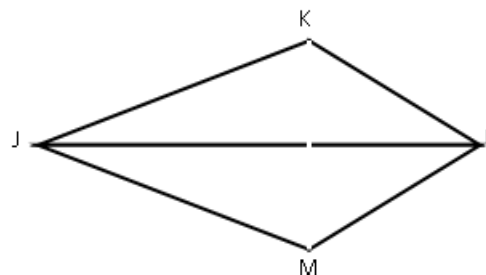
PROVE:  $\triangle ABD \cong \triangle CBD$



STATEMENTS	REASONS
1. D is the midpoint of AC	1.
2. $\angle ADB$ and $\angle CDB$ are right angles	2.
3.	3. Given
4.	4. Definition of Midpoint
5. $\triangle ABD$ and $\triangle CBD$ are right triangles	5.
6. $\triangle ABD \cong \triangle CBD$	6.

- 4) GIVEN:  $\overline{JL}$  bisects  $\angle KLM$ .  $\angle K \cong \angle M$

PROVE:  $\triangle JKL \cong \triangle JML$



STATEMENTS	REASONS
1.	1. Given
2. $\angle K \cong \angle M$	2.
3.	3. Definition of Angle Bisector
4. $\overline{JL} \cong \overline{JL}$	4.
5.	5.