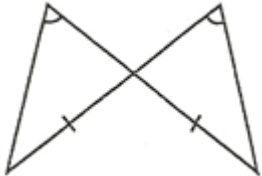

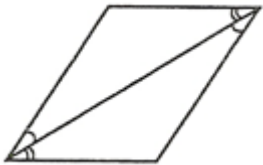
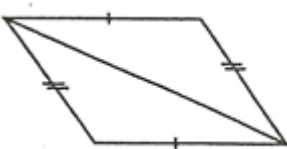
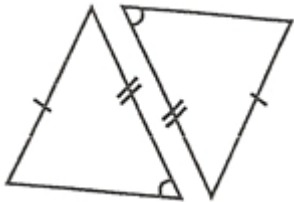
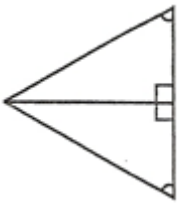
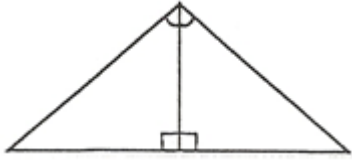
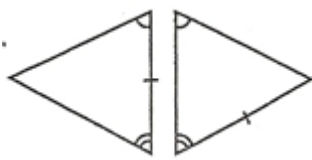


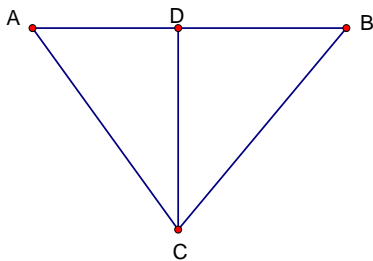
State whether each pair of triangles is congruent by SSS, SAS, AAS, or ASA. If no method works, write NONE.

1.  2.  3.  4.  5.  6.  7.  8. 

SSS, SAS, ASA, AAS Proofs: Complete a proof for each (2-column, paragraph, or flow chart)  
 (The statements are provided in no particular order and at least one statement does not belong.)

1. Given:  $\overline{CD}$  bisects  $\overline{AB}$  at D  
 $\overline{AC} \cong \overline{BC}$

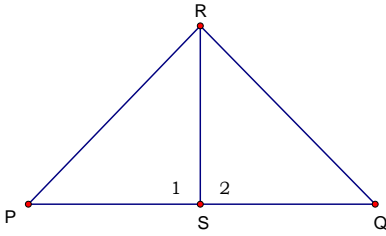
Prove:  $\triangle ADC \cong \triangle BDC$



- Statements:**  
 $D$  midpt. of  $\overline{AB}$   
 $\overline{AD} \cong \overline{BD}$   
 $\angle ACD \cong \angle BCD$   
 $\overline{CD}$  bisects  $\overline{AB}$  at D  
 $\overline{AC} \cong \overline{BC}$   
 $\triangle ADC \cong \triangle BDC$   
 $\overline{CD} \cong \overline{CD}$

2. Given:  $\overline{RS} \perp \overline{PQ}$   
 $\overline{RS}$  bisects  $\angle PRQ$

Prove:  $\triangle PRS \cong \triangle QRS$

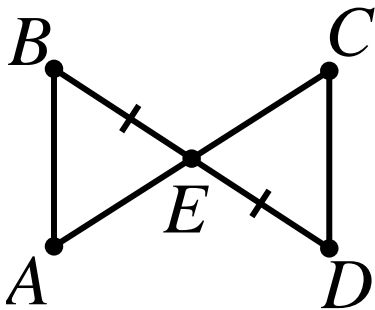


**Statements**

- |  |                                      |
|--|--------------------------------------|
| $\angle 1 \cong \angle 2$              | $\overline{RS}$ bisects $\angle PRQ$ |
| $\overline{RS} \perp \overline{PQ}$    | $\overline{RS} \cong \overline{RS}$  |
| $\triangle PRS \cong \triangle QRS$    | $\angle PRS \cong \angle QRS$        |
| $\angle 1$ is a right angle            | $\angle 2$ is a right angle          |
| $S$ is the midpoint of $\overline{PQ}$ | $\angle 1 \text{ supp. } \angle 2$   |

3. Given:  $\overline{BD}$  bisects  $\overline{AC}$  (Hint: Use the "Rainbow Connection")  
 $\overline{BE} \cong \overline{DE}$

Prove:  $\triangle ABE \cong \triangle CDE$



**Statements: Not Provided. Good Luck!**