4.8 Exercises - Triangle Congruence

Name: _____

I.   If the triangles can be proven congruent, give the reason (SSS, SAS, ASA, AAS, or HL). If there is not enough information to prove the triangles congruent, write "none."

1.

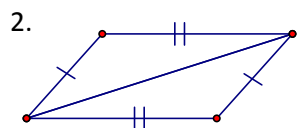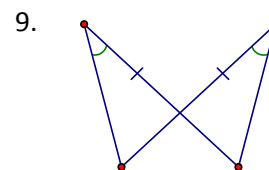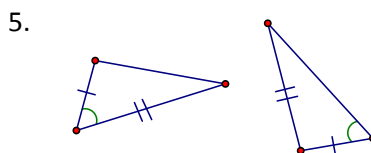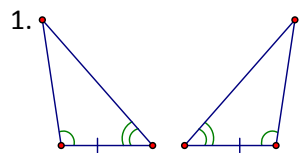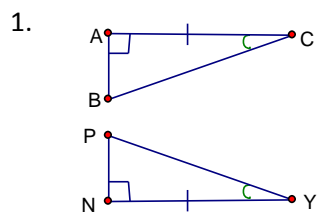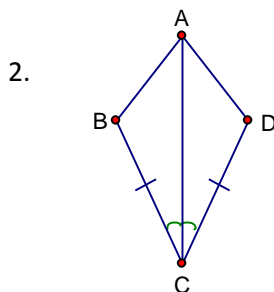
5.

9.

2.

6.

10.

3.

7.

11.

4.

8.

12.
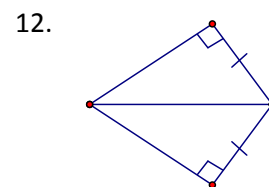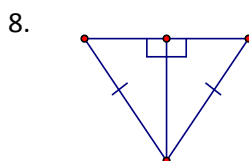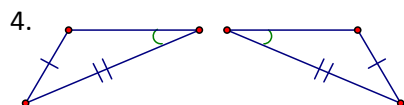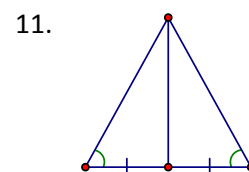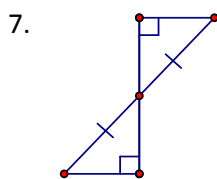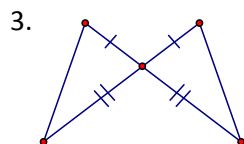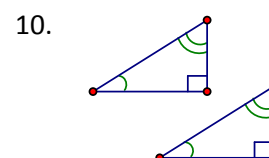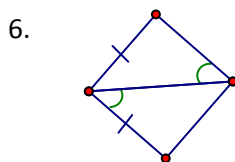
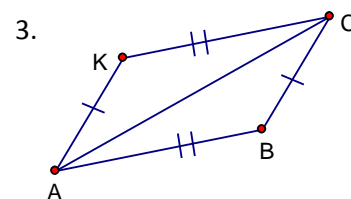II.   Determine whether you can conclude that another triangle is congruent to ΔABC.
- If so, complete the congruence statement and give the reason (SSS, SAS, ASA, HL, or AAS).
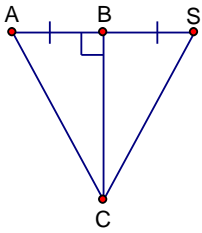- If not, write "none."

1.

$\Delta ABC \cong \Delta$_____
by _____

2.

$\Delta ABC \cong \Delta$_____
by _____

3.

$\Delta ABC \cong \Delta$_____
by _____

4.

$\Delta ABC \cong \Delta$ _____

by _____

6.
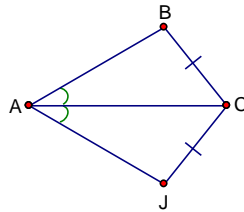
$\Delta ABC \cong \Delta$ _____

by _____

8.
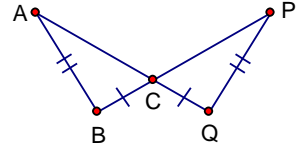
$\Delta ABC \cong \Delta$ _____

by _____

5.
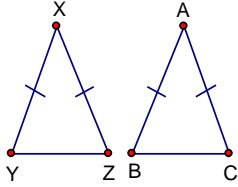
$\Delta ABC \cong \Delta$ _____

by _____

7.
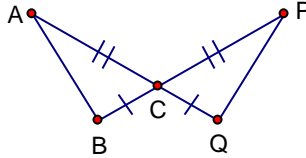
$\Delta ABC \cong \Delta$ _____

by _____

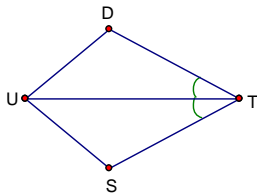**9.**
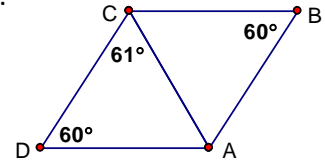
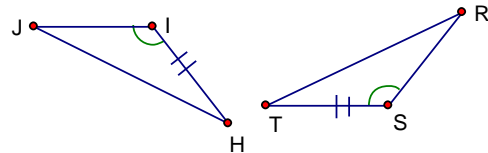$\Delta ABC \cong \Delta$ _____

by _____

Mark any information that can be concluded from the diagram. Then write the additional information that is required in order to know that the triangles are congruent by the given reason.
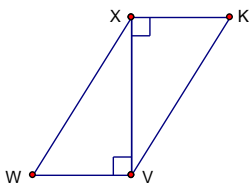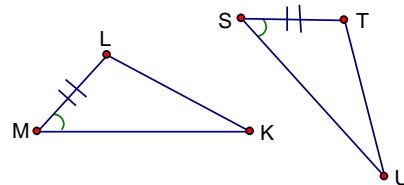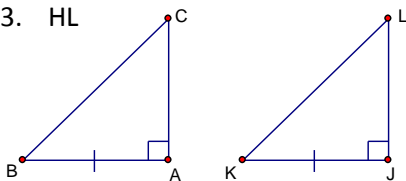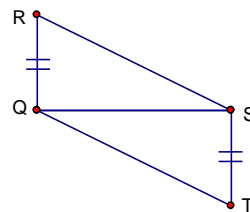
1. ASA

2. HL

3. HL

4. ASA

5. SAS

6. ASA

7. SSS

8. SAS