Name two triangles that are congruent by ASA.

1.

2.

3. Developing Proof  Complete the proof by filling in the blanks.

Given: \( \angle HIJ \cong \angle KIJ \)
\( \angle IJH \cong \angle IJK \)

Prove: \( \triangle HIJ \cong \triangle KIJ \)

Proof: \( \angle HIJ \cong \angle KIJ \) and \( \angle IJH \cong \angle IJK \) are given.
\( \overline{IJ} \cong \overline{IJ} \) by ___.
So, \( \triangle HIJ \cong \triangle KIJ \) by ___.

4. Given: \( \angle LOM \cong \angle NPM \), \( \overline{LM} \cong \overline{NM} \)

Prove: \( \triangle LOM \cong \triangle NPM \)

5. Given: \( \angle B \) and \( \angle D \) are right angles.
\( AE \) bisects \( BD \)

Prove: \( \triangle ABC \cong \triangle EDC \)
4-3 Think About a Plan
Triangle Congruence by ASA and AAS

Given: \( \overline{AB} \parallel \overline{CD}, \overline{AD} \parallel \overline{CB} \)
Prove: \( \triangle ABC \cong \triangle CDA \)

1. What do you need to find to solve the problem?

2. What are the corresponding parts of the two triangles?

3. What word would you use to describe \( \overline{AC} \)?

4. What can you show about angles in the triangles that can indicate congruency?

5. What do you know about a side or sides of the triangles that can be used to show congruency?

6. Write a proof in paragraph form.