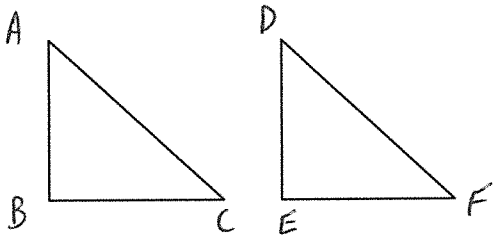


**Proving Triangle Congruence by ASA & AAS**  
Unit 4: Similarities

Prove each of the following using an emphasis on Angle-Side-Angle and Angle-Angle-Side:

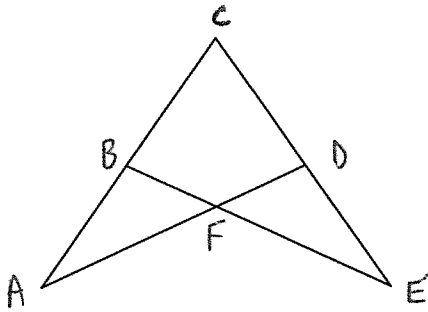
1. Given:  $\overline{AB} \perp \overline{BC}$   
 $\overline{DE} \perp \overline{EF}$   
 $\overline{AC} \cong \overline{DF}$   
 $\angle C \cong \angle F$

Prove:  $\triangle ABC \cong \triangle DEF$



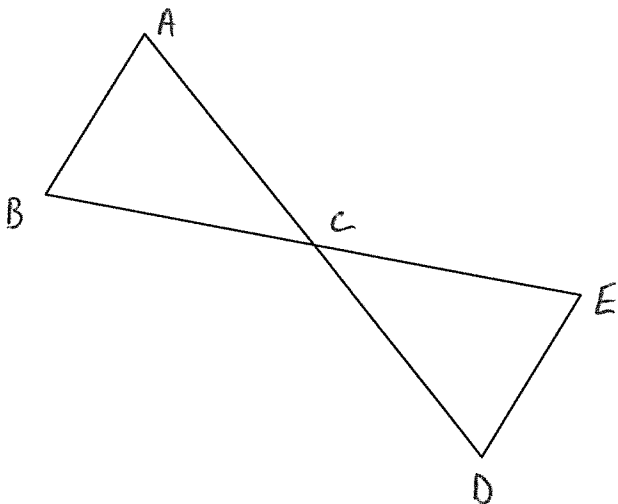
2. Given:  $\angle CBF \cong \angle CDF$   
 $\overline{BF} \cong \overline{FD}$

Prove:  $\triangle ABF \cong \triangle EDF$



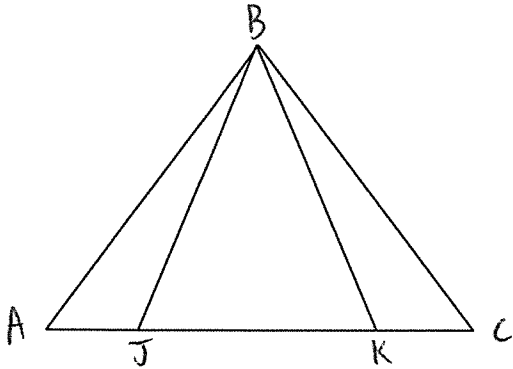
3. Given:  $\overline{AB} \parallel \overline{ED}$   
 $\overline{AB} \cong \overline{ED}$

Prove:  $\triangle ABC \cong \triangle DEC$



4. **Given:**  $\angle BJK \cong \angle BKJ$   
 $\overline{AK} \cong \overline{CJ}$   
 $\angle A \cong \angle C$

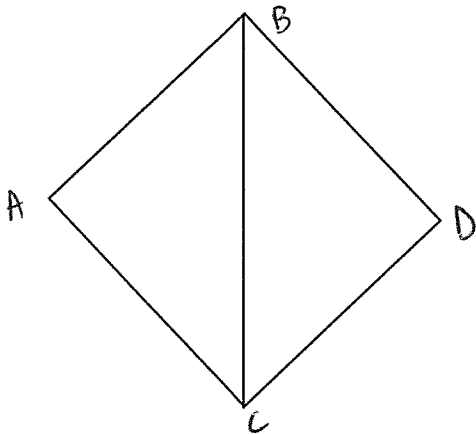
**Prove:**  $\triangle ABK \cong \triangle CBJ$



**Prove each of the following:**

5. **Given:** ABDC is a Square  
 $\overline{BC}$  bisects  $\angle B$  and  $\angle C$

**Prove:**  $\triangle ABC \cong \triangle DCB$



6. **Given:**  $\overline{LO} \parallel \overline{MN}$   
 $\angle L \cong \angle N$

**Prove:**  $\triangle LOM \cong \triangle NMO$

