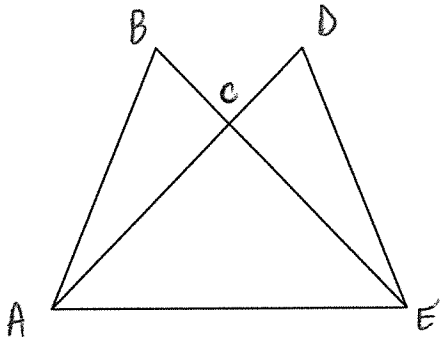
Proving Triangle Congruence by ASA & AAS – Day 2

Unit 4: Similarities

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

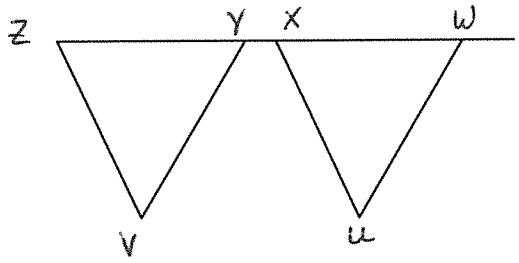
1. **Given:** ∠ B ≅ ∠ D
   $\overline{AC} \cong \overline{EC}$

   Prove: Δ ABC ≅ Δ EDC



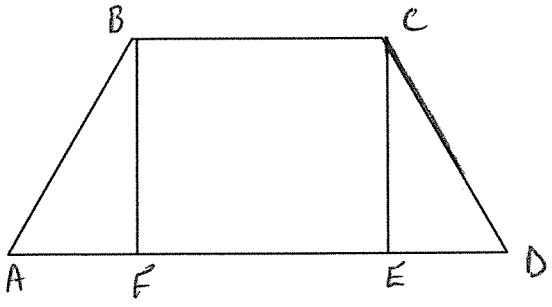
2. **Given:** $\overline{WU} \parallel \overline{YV}$
   $\overline{XU} \parallel \overline{ZV}$
   $\overline{WX} \cong \overline{YZ}$

   Prove: Δ WXU ≅ Δ YZV



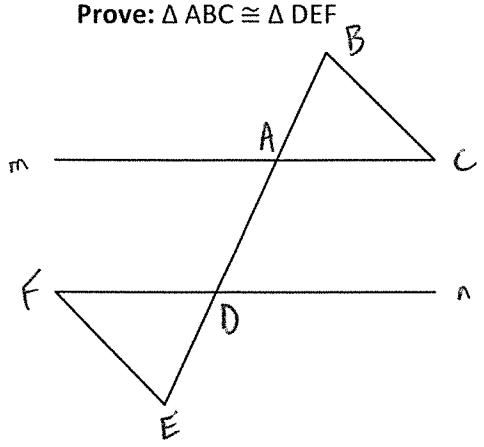
3. **Given:** BCEF is a Rectangle
   ∠ A ≅ ∠ D

   Prove: Δ ABF ≅ Δ DCE



4. **Given:** m || n
$\overline{BC} \,||\, \overline{EF}$
$\overline{AB} \cong \overline{ED}$

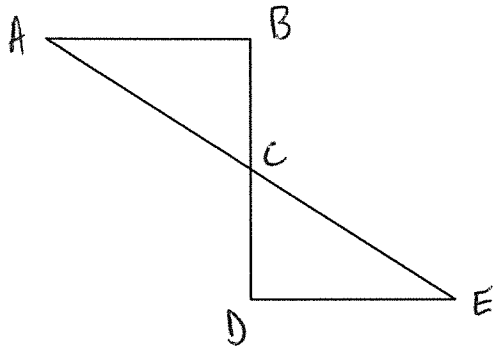
Prove: Δ ABC ≅ Δ DEF



Prove each of the following:

5. **Given:** C is the midpoint of $\overline{BD}$
$\overline{AB} \,||\, \overline{DE}$

Prove: Δ ABC ≅ Δ EDC



6. **Given:** $\overline{AB} \,||\, \overline{DC}$
$\overline{AB} \cong \overline{DC}$

Prove: Δ ABE ≅ Δ CDE