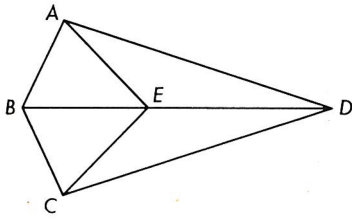


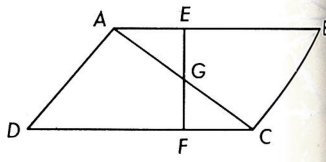
Triangle Proofs

Geometry Research Honors

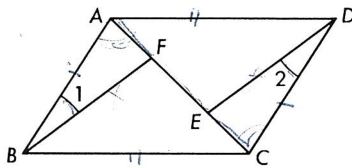
1. Given: $\overline{AB} \cong \overline{CB}$
 $\overline{AD} \cong \overline{CD}$
 Concl.: $\angle AED \cong \angle CED$



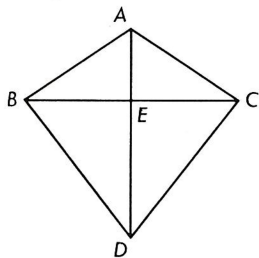
2. Given: $\overline{AB} \cong \overline{DC}$
 $\overline{AD} \cong \overline{BC}$
 G is the midpoint of $\overline{AC}$.
 Concl.: G is the midpoint of $\overline{EF}$.



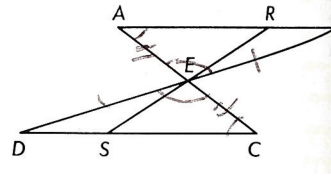
3. Given: $\overline{AB} \cong \overline{CD}$
 $\overline{AD} \cong \overline{BC}$
 $\angle 1 \cong \angle 2$
 Concl.: $\overline{AF} \cong \overline{CE}$



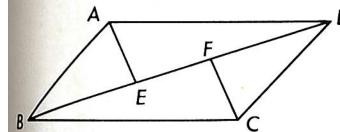
4. Given: $\overline{AB} \cong \overline{AC}$
 $\overline{DB} \cong \overline{DC}$
 Concl.: $\overleftrightarrow{AD}$ bisects $\overline{BC}$.



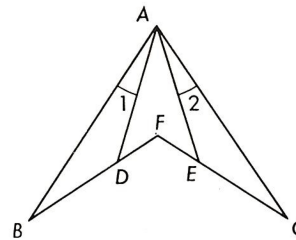
5. Given: $\overline{AC}$ and $\overline{BD}$ bisect each other at E .
 Concl.: E is the midpoint of $\overline{RS}$.



6. Given: $\overline{AB} \cong \overline{DC}$
 $\overline{AD} \cong \overline{BC}$
 $\overrightarrow{AE}$ bisects $\angle BAD$.
 $\overrightarrow{CF}$ bisects $\angle BCD$.
 Concl.: $\overline{BE} \cong \overline{FD}$



7. Given: $\overline{AB} \cong \overline{AC}$
 $\overline{BD} \cong \overline{CE}$
 $\overline{DF} \cong \overline{EF}$
 Concl.: $\angle 1 \cong \angle 2$



8. Given: $\overline{AB} \cong \overline{AC}$
 $\overline{EB} \cong \overline{EC}$
 Concl.: $\overleftrightarrow{AD}$ bisects $\overline{BC}$.

