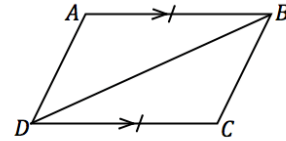


Geometry Problem Set 4-3R/4-4L

Justify whether the triangles meet the SAS congruence criteria; explicitly state which pairs of sides or angles are congruent and why. If the triangles do meet the SAS congruence criteria, describe the specific rigid motion(s) that would map one triangle onto the other.

1. Given: $\overline{AB} \parallel \overline{CD}$, $\overline{AB} \cong \overline{CD}$

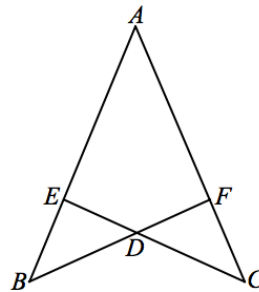
Do $\triangle ABD$ and $\triangle CDB$ meet the SAS criteria?



Rigid motions (2) to map $\triangle ABD$ onto $\triangle CDB$:

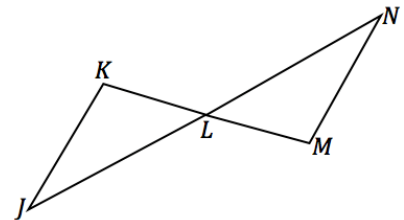
2. Given: $\overline{BF} \perp \overline{AC}$, $\overline{CE} \perp \overline{AB}$

Explain why $\triangle BED$ and $\triangle CFD$ do not meet the SAS criteria:



3. Given: \overline{KM} and \overline{JN} bisect each other.

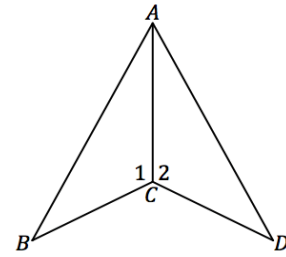
Do $\triangle JKL$ and $\triangle NML$ meet the SAS criteria?



Rigid motion to map $\triangle JKL$ onto $\triangle NML$:

4. **Given:** $\angle 1 \cong \angle 2$, $\overline{BC} \cong \overline{DC}$

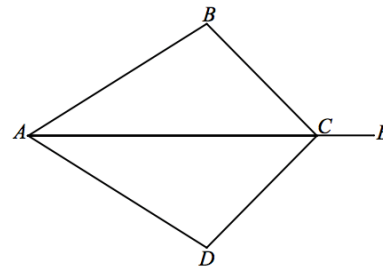
Do $\triangle ABC$ and $\triangle ADC$ meet the SAS criteria?



Rigid motion to map $\triangle ABC$ onto $\triangle ADC$:

5. **Given:** \overline{AE} bisects angle $\angle BCD$, $\overline{BC} \cong \overline{DC}$

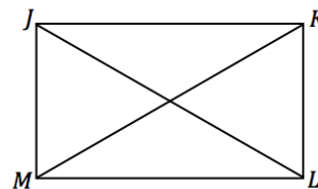
Do $\triangle CAB$ and $\triangle CAD$ meet the SAS criteria?



Rigid motion to map $\triangle CAB$ onto $\triangle CAD$:

6. **Given:** $\overline{JM} \cong \overline{KL}$, $\overline{JM} \perp \overline{ML}$, $\overline{KL} \perp \overline{ML}$

Do $\triangle JML$ and $\triangle KLM$ meet the SAS criteria?



Rigid motions (2) to map $\triangle JML$ onto $\triangle KLM$: