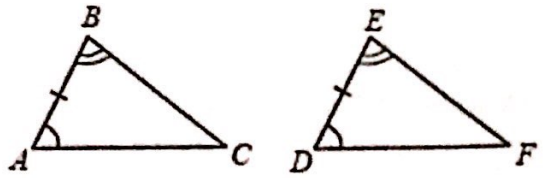
Main Ideas/Questions	Notes	4.2

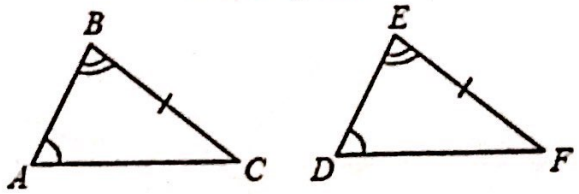
ANGLE-SIDE-ANGLE (ASA)

If two angles and the included side of one triangle are congruent to two angles and an included side of another triangle, then the triangles are congruent.



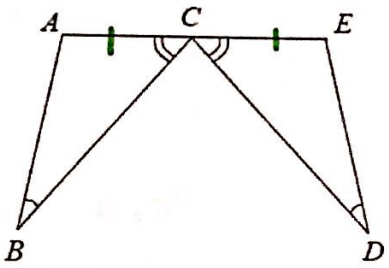
ANGLE-ANGLE-SIDE (AAS)

If two angles and the non-included side of one triangle are congruent to two angles and a non-included side of another triangle, then the triangles are congruent



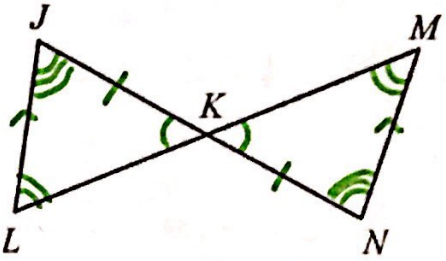
Directions: Label the given information on each diagram. State whether the triangles could be congruent by ASA or AAS. If so, write a congruency statement.

C *is the midpoint of* $\overline{AE}$



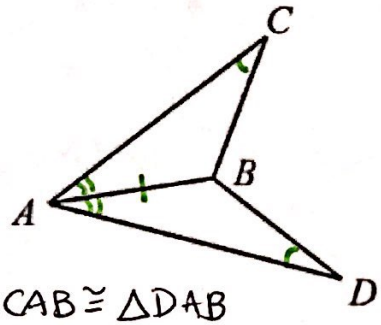
yes, $\Delta BAC \cong \Delta DEC$ by AAS

$\overline{JL} \parallel \overline{MN}$; $\overline{JK} \cong \overline{KN}$



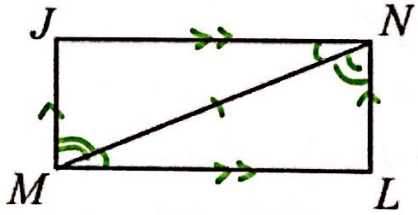
yes, $\Delta JLK \cong \Delta MNK$ by AAS or ASA

$\angle ACB \cong \angle ADB$; $\overline{AB}$ *bisects* $\angle CAD$



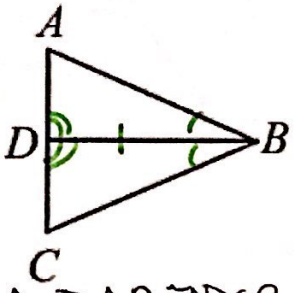
yes, $\Delta CAB \cong \Delta DAB$ by AAS

$\overline{JM} \parallel \overline{NL}$; $\overline{JM} \parallel \overline{NL}$



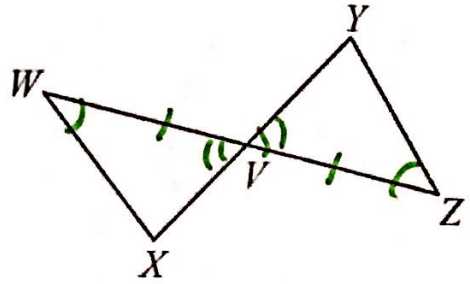
yes, $\Delta JMN \cong \Delta LNM$ by ASA

$\overline{BD}$ *bisects* $\angle ABC$ *and* $\angle ADC$



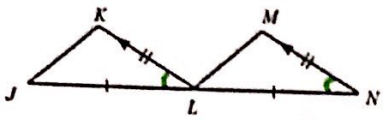
yes, $\Delta DAB \cong \Delta DCB$ by ASA

V *is the midpoint of* $\overline{WZ}$; $\angle W \cong \angle Z$



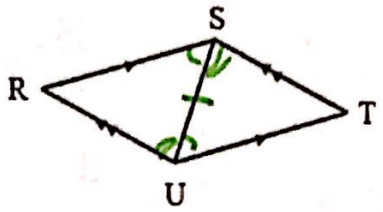
yes, $\Delta WXV \cong \Delta ZYV$ by ASA

Directions: State whether the triangles could be congruent by ASA, AAS or neither. If so, write a congruency statement.



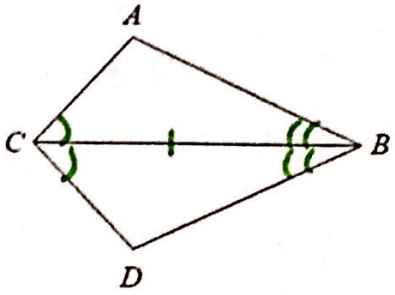
neither

*SAS



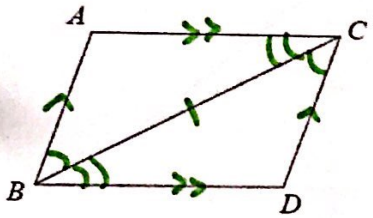
$\Delta RSU \cong \Delta TUS$
by ASA

$\overline{CB}$ bisects $\angle ACD$ and $\angle ABD$

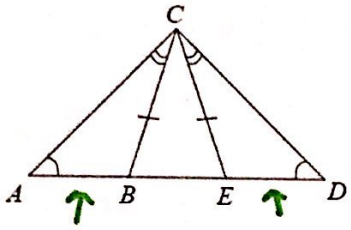


$\Delta CDB \cong \Delta CAB$
by ASA

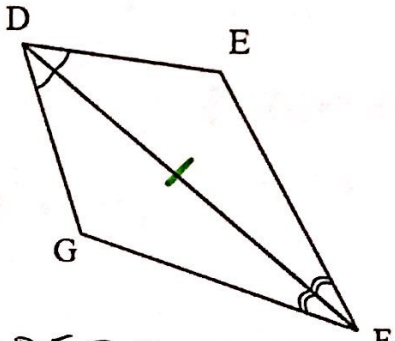
$\overline{AB} \parallel \overline{CD}$; $\overline{AC} \parallel \overline{BD}$



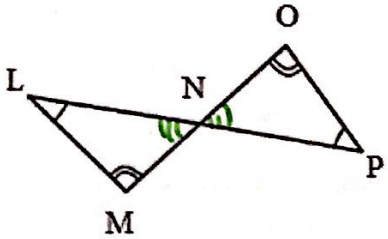
$\Delta ACB \cong \Delta DBC$
by ASA



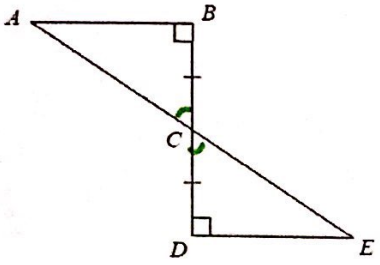
$\Delta ACB \cong \Delta DCE$
by AAS



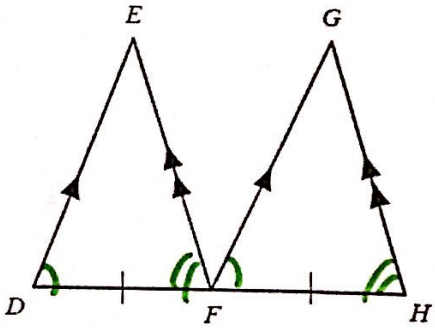
$\Delta DEF \cong \Delta DGF$
by ASA



neither



$\Delta ABC \cong \Delta EDC$
by ASA



$\Delta DEF \cong \Delta FGH$
by ASA