

Main Ideas/Questions

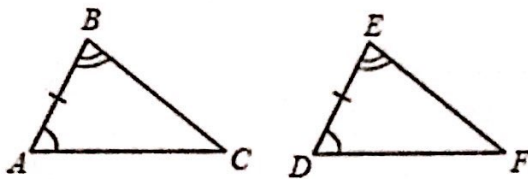
Notes

TRIANGLE CONGRUENCE: ASA & AAS

If all **corresponding angles and sides** of two triangles are **congruent**, then the triangles are **congruent**. However, you can prove triangles are congruent using fewer parts

ANGLE-SIDE-ANGLE (ASA)

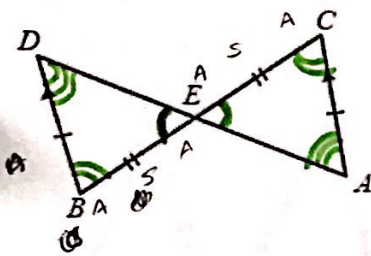
If two angles and the included side of one triangle are congruent to two angles and an included side of another triangle, then the triangles are congruent.



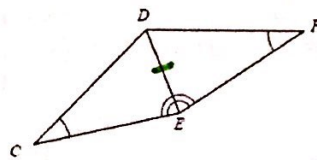
If $\angle A \cong \angle D$ (Angle)
 $\overline{AC} \cong \overline{DF}$ (Side)
 $\angle C \cong \angle F$ (Angle)

Then, $\triangle ABC \cong \triangle DEF$

Directions: State whether the triangles could be congruent by ASA. If so, write a congruency statement.

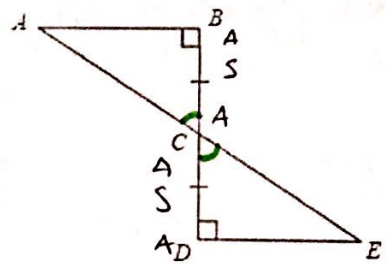


Yes, $\triangle EBD \cong \triangle ECA$ by ASA

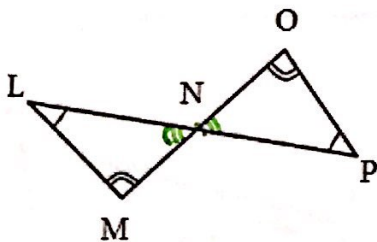


not ASA

* side is not included

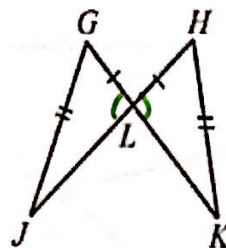


Yes, $\triangle BCA \cong \triangle DCE$ by ASA



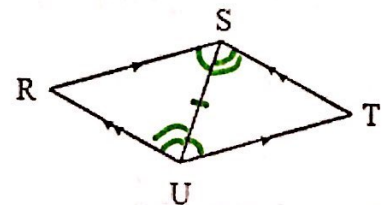
not ASA

* no sides



not ASA

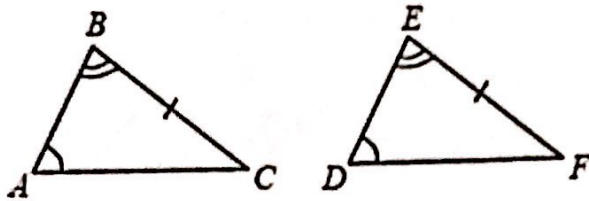
only one angle



Yes, $\triangle SUR \cong \triangle UST$ by ASA

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.



If $\angle A \cong \angle D$ (Angle)
 $\angle B \cong \angle E$ (Angle)
 $\overline{BC} \cong \overline{EF}$ (Side)

Then, $\triangle ABC \cong \triangle DEF$

Directions: State whether the triangles could be congruent by AAS. If so, write a congruency statement.

yes $\triangle TRS \cong \triangle ORS$
by AAS

not AAS, side is included

yes $\triangle XZY \cong \triangle WZY$
by AAS

not AAS, side is inc.

yes, $\triangle EDB \cong \triangle EAC$
by AAS

yes $\triangle CED \cong \triangle FED$
by AAS

Directions: State whether the triangles could be congruent by ASA or AAS. If so, write a congruency statement.

yes, $\triangle XYW \cong \triangle ZWY$
by AAS

not AAS/ASA
*not enough angles

yes, $\triangle BDA \cong \triangle BDC$
by ASA