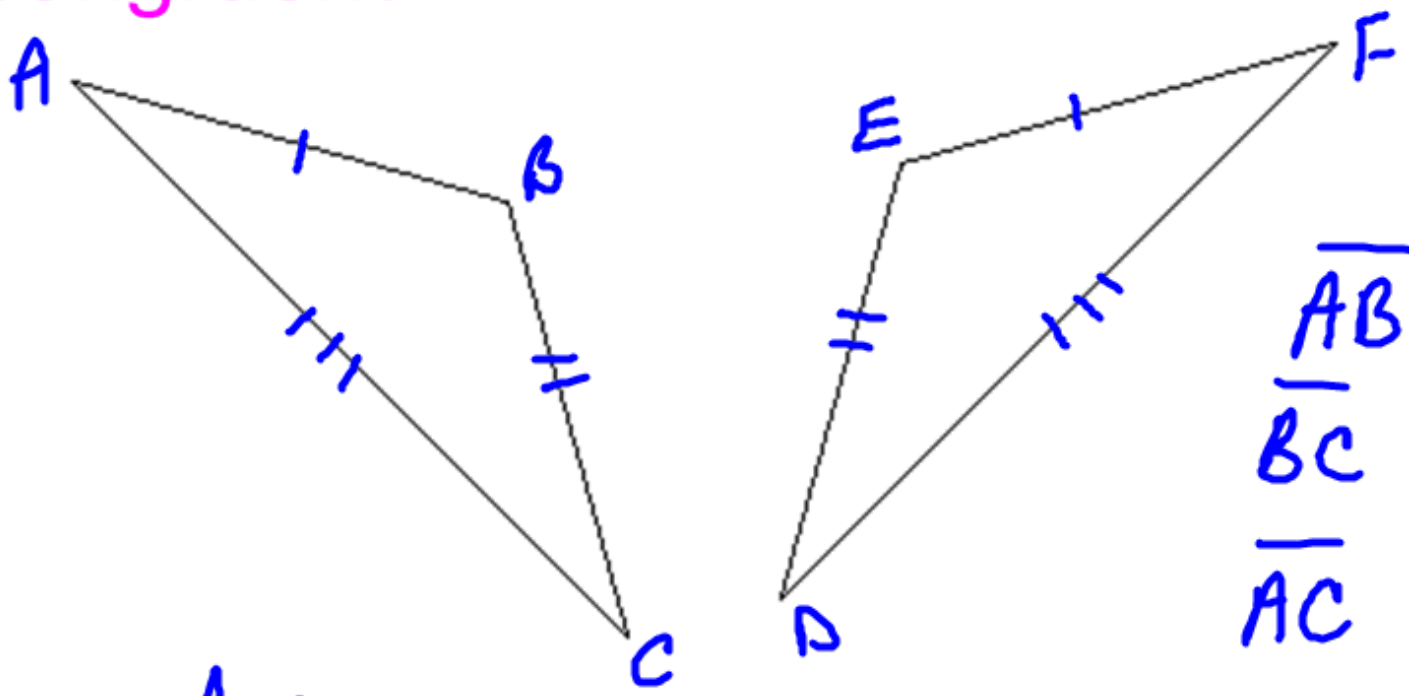
SSS Side-Side-Side Congruence

If three sides of one triangle are congruent to three sides of a 2nd triangle, then the triangles are congruent



$\overline{AB} \cong \overline{FE}$

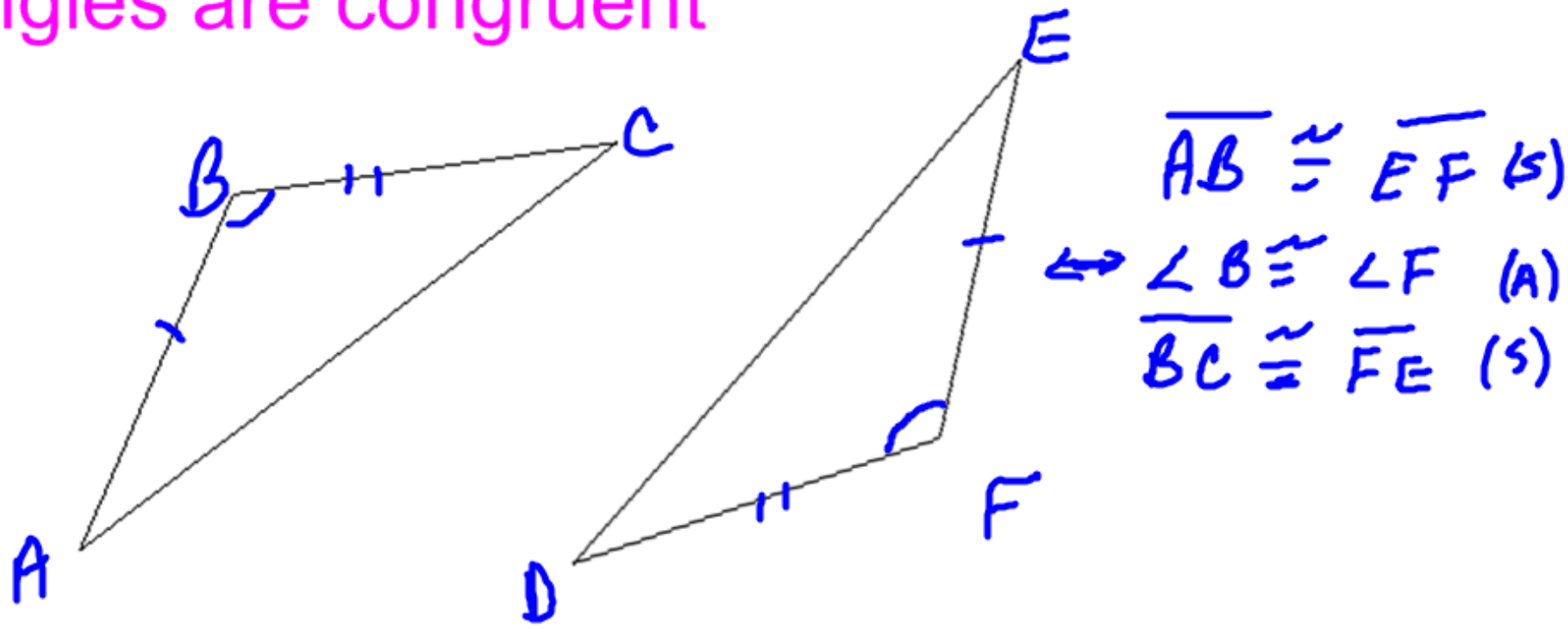
$\overline{BC} \cong \overline{ED}$

$\overline{AC} \cong \overline{FD}$

$\triangle ABC \cong \triangle FED$

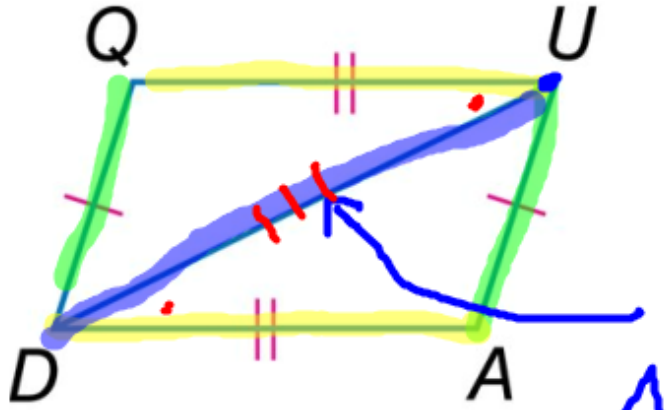
SAS Side Angle Side Congruence

If 2 sides and the included angle of one triangle are congruent to two sides and the included angle of a second triangle, then the triangles are congruent



Are there two congruent triangles in this drawing? If so, name them.

State how you know



$\overline{QD} \cong \overline{AU}$ (S)

$\overline{QU} \cong \overline{AD}$ (S)

$\overline{DU} \cong \overline{UD}$ (S)

Shared side is always $\cong$ itself

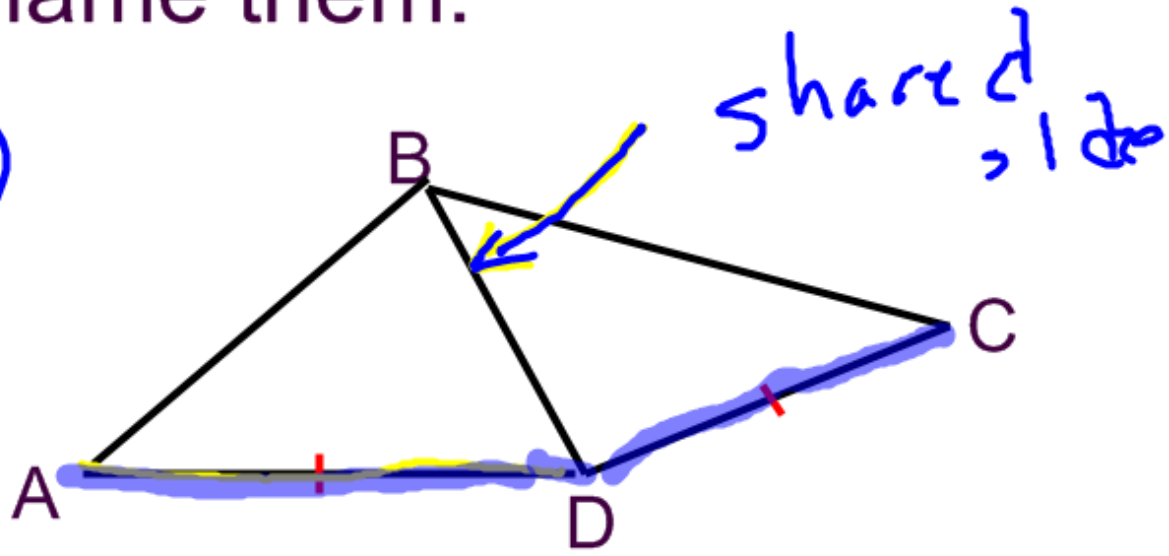
yes, SSS, $\triangle QUD \cong \triangle ADU$

Are there two congruent triangles in this drawing? If so, name them.

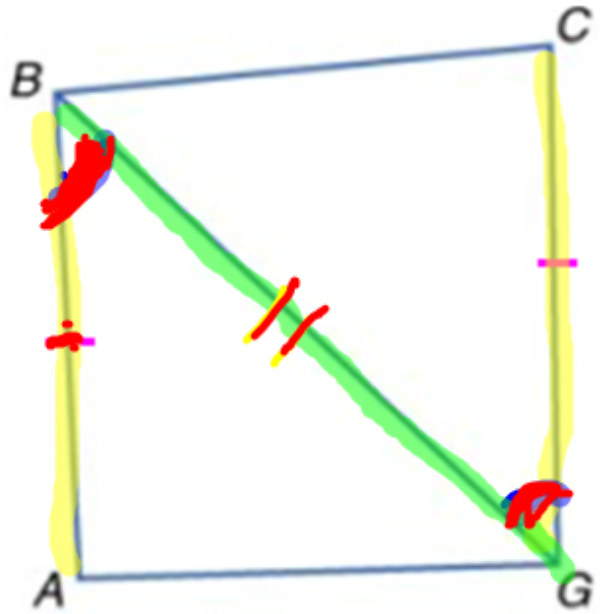
$\overline{AD} \cong \overline{CD}$ (S)

$\overline{BD} \cong \overline{BD}$ (S)

Not $\cong$



Are there two congruent triangles in this drawing? If so, name them.



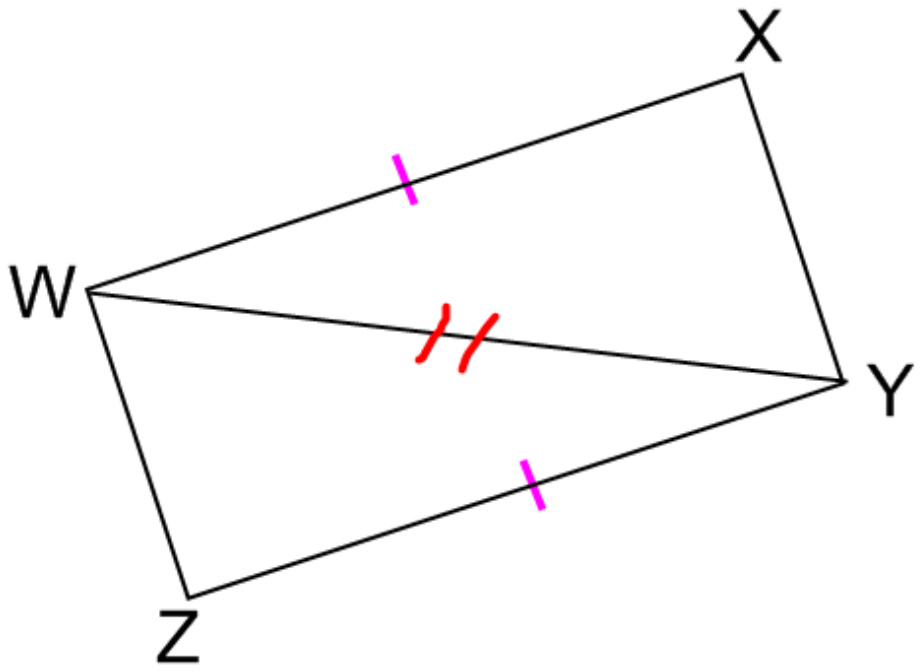
$\overline{BA} \cong \overline{GC}$ (S)

$\angle B \cong \angle G$ (A)

$\overline{BG} \cong \overline{GB}$ (S)

Yes, SAS, $\triangle ABG \cong \triangle CGB$

Are there two congruent triangles in this drawing? If so, name them.



$\overline{WX} \cong \overline{YZ}$ (S)

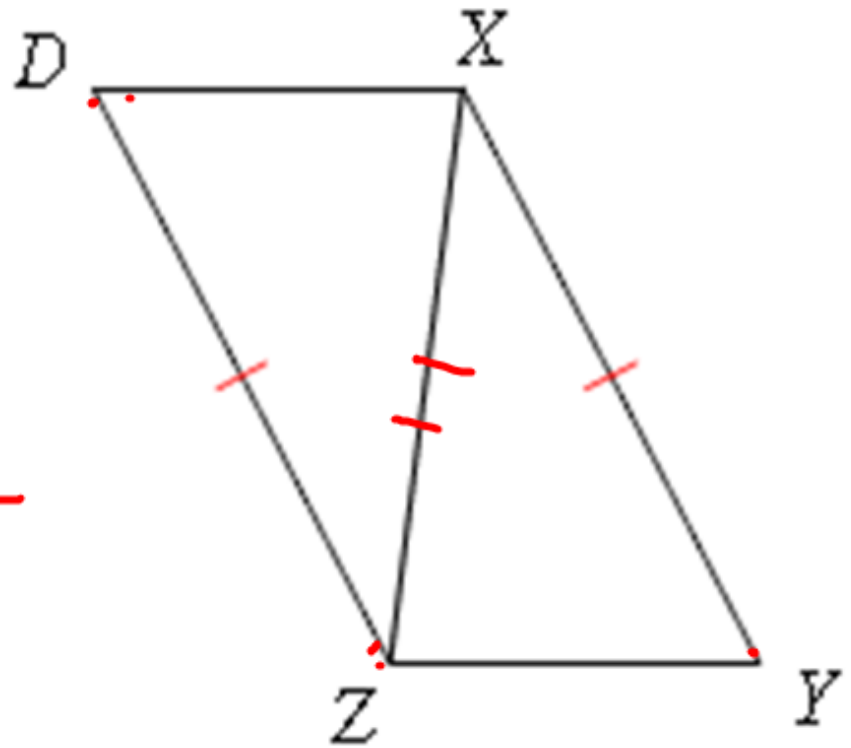
$\overline{WY} \cong \overline{WY}$ (S)

Not $\cong$

State what additional information is required in order to know that the triangles are congruent for the reason given. Then give the congruency statement.

#13

SSS



Given: (S) $\overline{XY} \cong \overline{ZD}$

(S) $\overline{XZ} \cong \overline{XZ}$

Ans: $\overline{DX} \cong \overline{YZ}$

$\triangle DXZ \cong \triangle YZX$

State what additional information is required in order to know that the triangles are congruent for the reason given. Then give the congruency statement.

#18

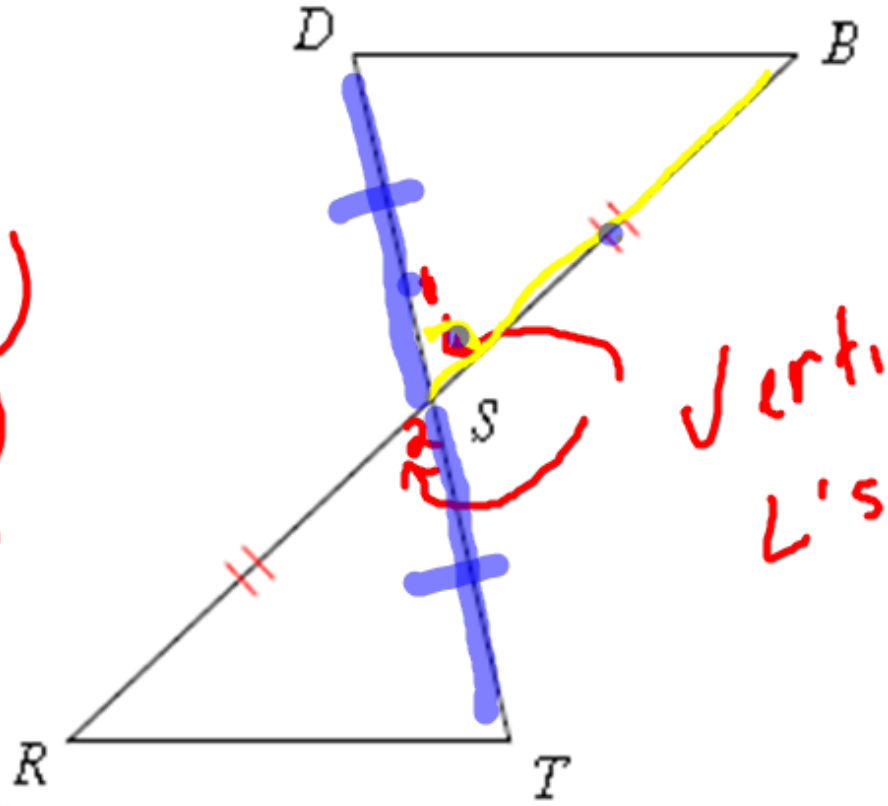
SAS

Given: $\overline{SB} \cong \overline{SR}$ (S)

$\angle 1 \cong \angle 2$ (A)

Ans: $\overline{ST} \cong \overline{SD}$

$\triangle DBS \cong \triangle TRS$



Vertical ∠'s are ≅

$\triangle DSB \cong \triangle TSR$