

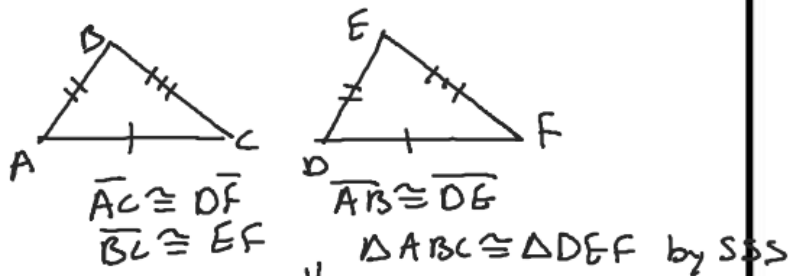
Congruent Triangles

1) Corresponding \angle 's
 \cong

2) Corresponding Sides
 are \cong .

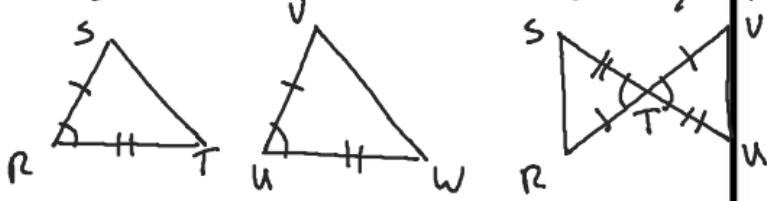
Side-Side-Side (SSS)

3 pairs of Corresponding
 Sides \cong .



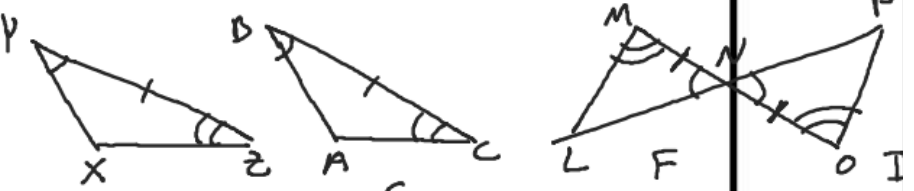
Side-Angle-Side (SAS)

2 pairs of corresponding
 Sides \cong and an Included
 $\angle \cong$.



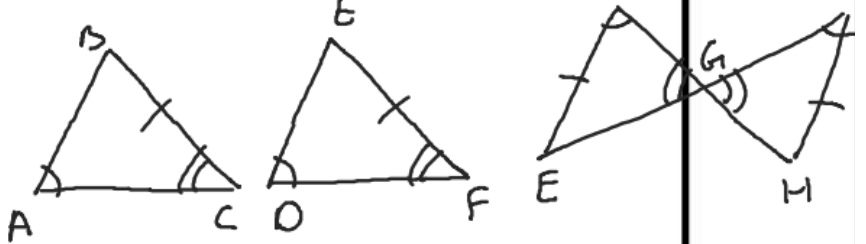
Angle-Side-Angle

2 pairs of corresponding
 \angle 's \cong and an included
 Side \cong .



Angle-Angle-Side

2 pairs of corresponding
 \angle 's \cong and a non-included
 Side \cong .



(HL)

Hypotenuse-Leg

Right Δ only

Hypotenuse are \cong

and corresponding

leg are \cong

Midpoint - cut segment in half



$$\overline{AM} \cong \overline{BM}$$

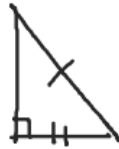
Bisector - cuts

object in half

Reflexive Property

Objects are

\cong to themselves.



Examine each of the following pairs of triangles and their markings showing congruence of corresponding angles and sides. In each case, decide whether the information given by the markings ensures that the triangles are congruent. If the triangles are congruent, write a congruence relation showing the correspondence between vertices. Cite an appropriate congruence theorem to support your conclusion.

a. **Not Congruent**

b. $\Delta JLB \cong \Delta EUS$
SAS

c. $\Delta OJB \cong \Delta ITP$
AAS

d. $\Delta MNO \cong \Delta XYZ$
HL

e. $\Delta ART \cong \Delta MDI$
SSS

f. $\Delta ADM \cong \Delta TOP$
ASA