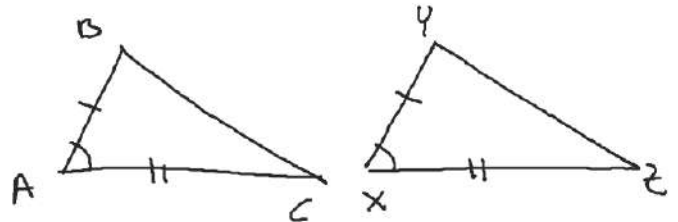


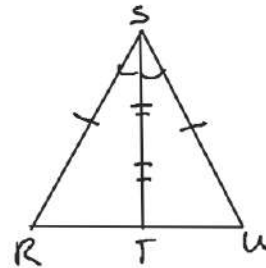
Ways to Prove Triangles Congruent

Side Angle Side (SAS)

2 pairs of corresponding sides congruent and a pair of included angles \cong .



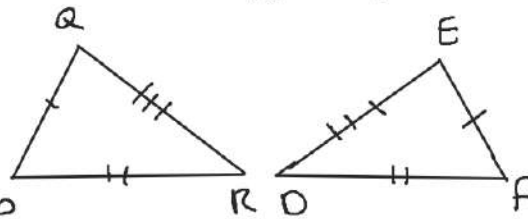
$$\triangle ABC \cong \triangle XYZ$$



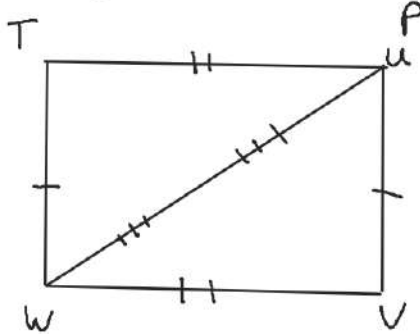
$$\triangle RST \cong \triangle TSU$$

Side - Side - Side (SSS)

3 pairs of congruent corresponding sides.



$$\triangle PQR \cong \triangle DEF$$

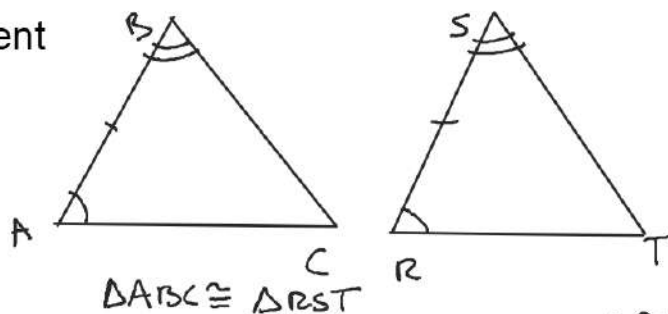


$$\triangle TWU \cong \triangle VUW$$

Ways to Prove Triangles Congruent

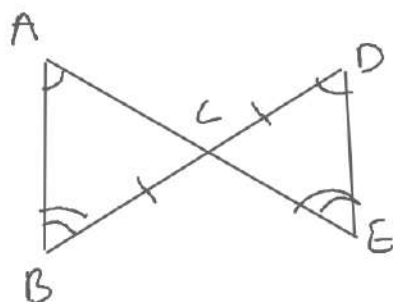
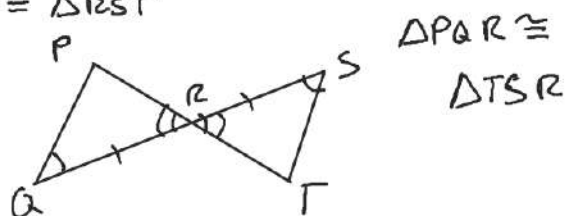
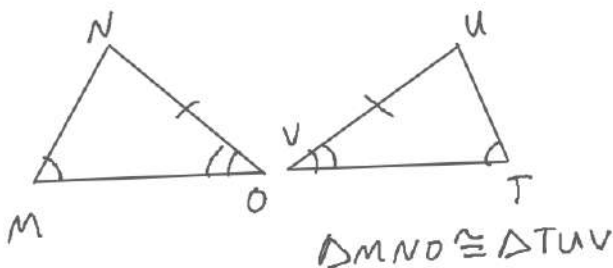
Angle - Side - Angle (ASA)

2 pairs of congruent corresponding angles and included sides congruent



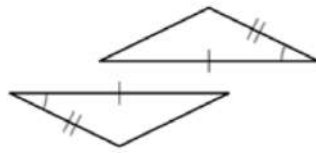
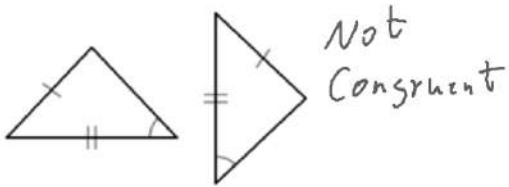
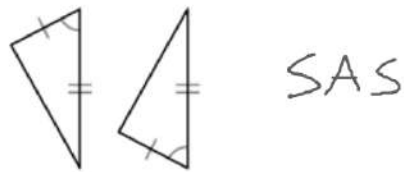
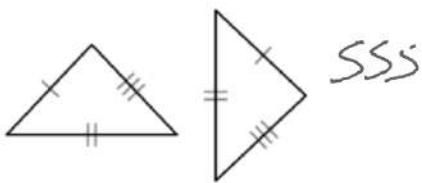
Angle - Angle - Side (AAS)

2 pairs of congruent corresponding angles and any pair of nonincluded sides congruent

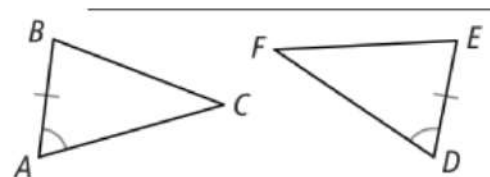


$$\Delta ABC \cong \Delta DEC$$

A. Which of the following pairs are congruent by SAS or SSS? _____

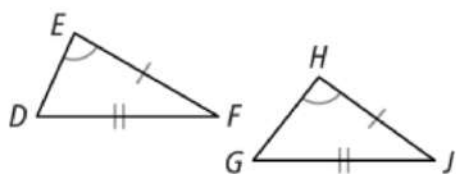


B. What additional information is needed to show $\triangle ABC \cong \triangle DEF$ by SAS? By SSS?



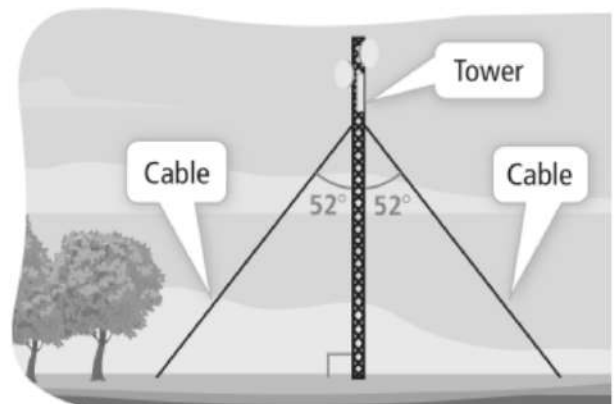
Try It!

4. b. Is any additional information needed to show $\triangle DEF \cong \triangle GHJ$ by SAS? Explain.

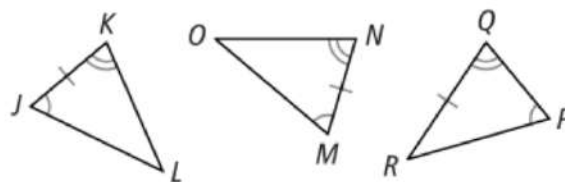


A technician installs cables from a cell phone tower to the ground. To pass inspection, both cables must be the same length. Does this installation meet the cable-length requirement? Explain.

SOLUTION



3. a. Are $\triangle JKL$ and $\triangle MNO$ congruent?
Explain.



b. Are $\triangle JKL$ and $\triangle PQR$ congruent? Explain.

A. State whether each pair of triangles is congruent by SAS, SSS, ASA, or AAS, or if the congruence cannot be determined.

