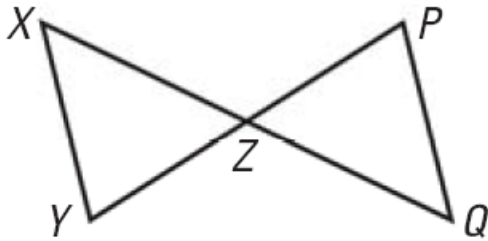
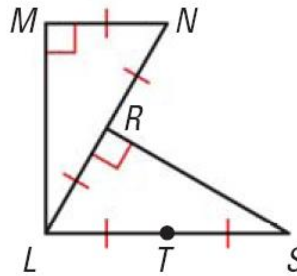


Determine the postulates or theorems for the following figures below. If there is not enough information to identify the congruence, explain why.

1) Z is the midpoint of \overline{PY} and \overline{XQ}

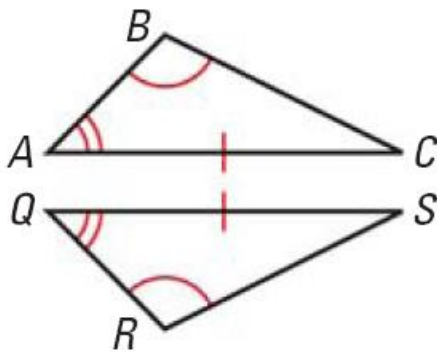


2)



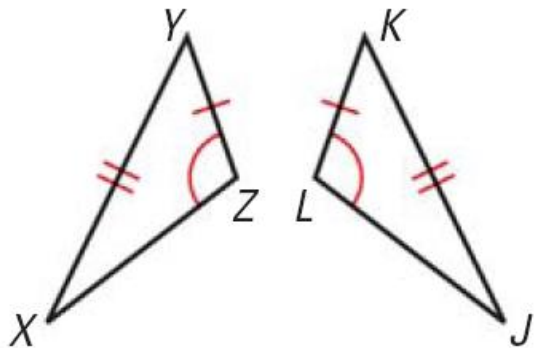
3)

$\triangle ABC, \triangle QRS$



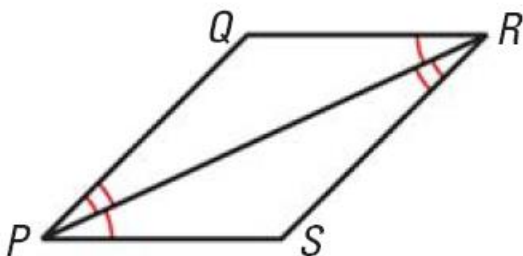
4)

$\triangle XYZ, \triangle JKL$

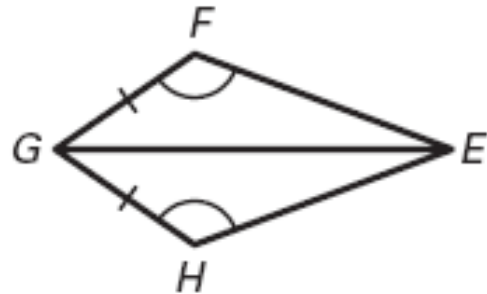


5)

$\triangle PQR, \triangle RSP$

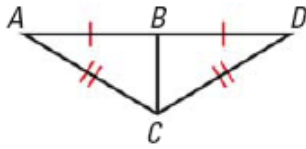


6)



Tell which triangles you can show are congruent you can show are congruent in order to prove the statement. What postulate or theorem would you use?

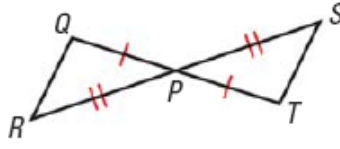
7) $\angle A \cong \angle D$



_____ \cong _____

Theorem: _____

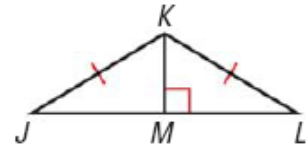
8) $\angle Q \cong \angle T$



_____ \cong _____

Theorem: _____

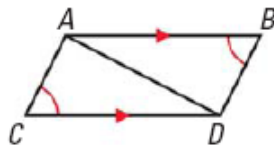
9) $\overline{JM} \cong \overline{LM}$



_____ \cong _____

Theorem: _____

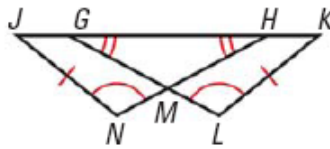
10) $\overline{AC} \cong \overline{BD}$



_____ \cong _____

Theorem: _____

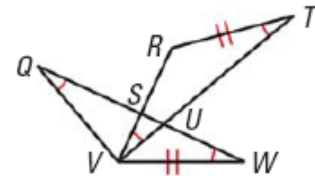
11) $\overline{GK} \cong \overline{HJ}$



_____ \cong _____

Theorem: _____

12) $\overline{QW} \cong \overline{TV}$



_____ \cong _____

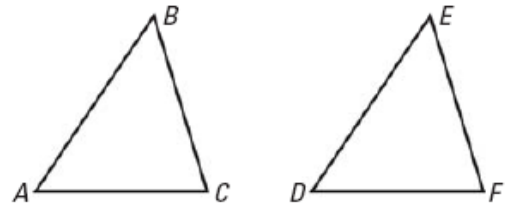
Theorem: _____

State the third congruence that must be given to prove that $\triangle ABC \cong \triangle DEF$ using the indicated postulate.

- 13) **GIVEN** $\triangleright \overline{AB} \cong \overline{DE}, \overline{CB} \cong \overline{FE}, \underline{\quad} \cong \underline{\quad}$
Use the SSS Congruence Postulate.

- 14) **GIVEN** $\triangleright \angle A \cong \angle D, \overline{CA} \cong \overline{FD}, \underline{\quad} \cong \underline{\quad}$
Use the SAS Congruence Postulate.

- 15) **GIVEN** $\triangleright \angle B \cong \angle E, \overline{AB} \cong \overline{DE}, \underline{\quad} \cong \underline{\quad}$
Use the SAS Congruence Postulate.



16)

xy ALGEBRA Given that $\triangle ABC \cong \triangle DEF$, $m\angle A = 70^\circ$, $m\angle B = 60^\circ$, $m\angle C = 50^\circ$, $m\angle D = (3x + 10)^\circ$, $m\angle E = \left(\frac{y}{3} + 20\right)^\circ$, and $m\angle F = (z^2 + 14)^\circ$, find the values of x , y , and z .