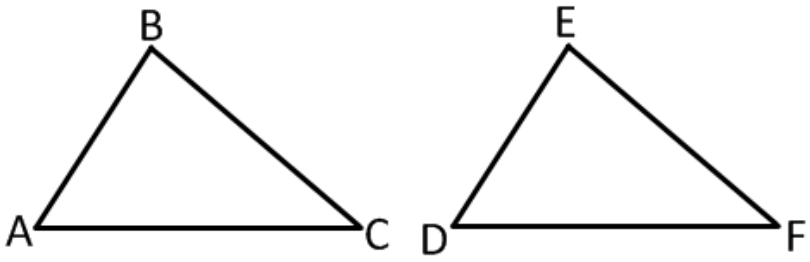
Name: _____Period: _____

Complete each proof as directed. Remember – we are using the congruency postulate/theorems (SSS, SAS, ASA, and AAS) and we are sure to write each set of congruent parts **in order** for the postulate/theorem we are using to prove the triangles congruent.

Points will be lost for diagrams not filled in with congruence markings!

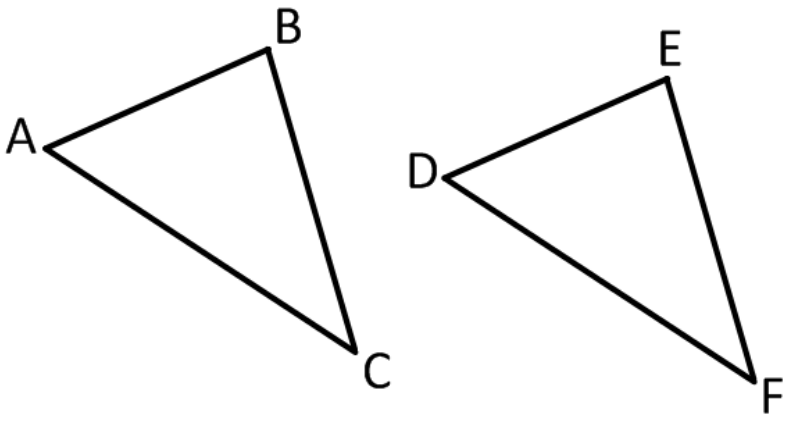
1) Given: $\overline{AB} \cong \overline{DE}, \angle B \cong \angle E$ and $\angle A \cong \angle D$
Prove: $\Delta ABC \cong \Delta DEF$



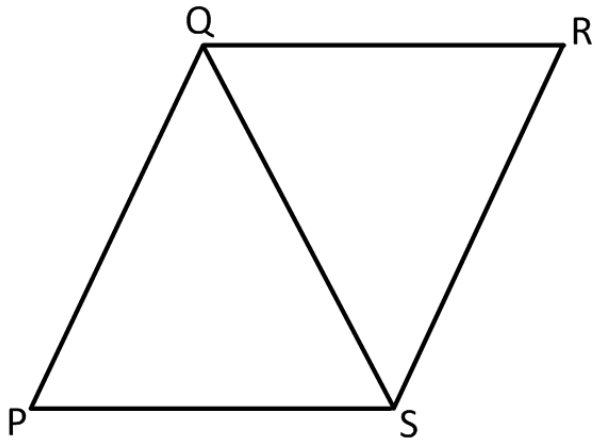
Proofs in this section are adapted from free worksheet published at
http://www.letspracticegeometry.com on 11/30/2013

2) Given: $\overline{AB} \cong \overline{DE}, \overline{AC} \cong \overline{DF}, \overline{BC} \cong \overline{EF}$

Prove: $\Delta ABC \cong \Delta DEF$

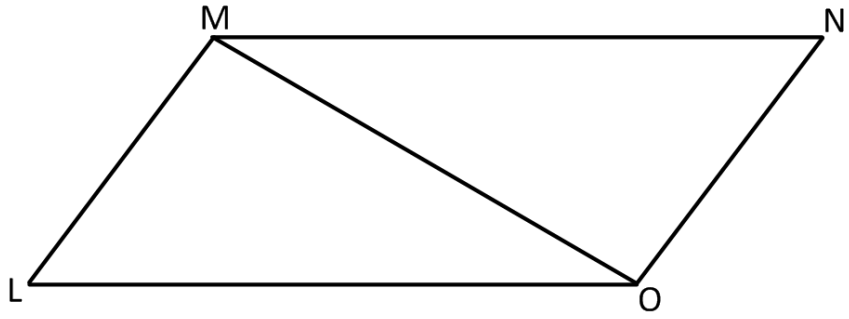


3) Given: $\overline{PQ} \cong \overline{RS}$, and $\angle PQS \cong \angle RSQ$
Prove: $\Delta PQS \cong \Delta RSQ$

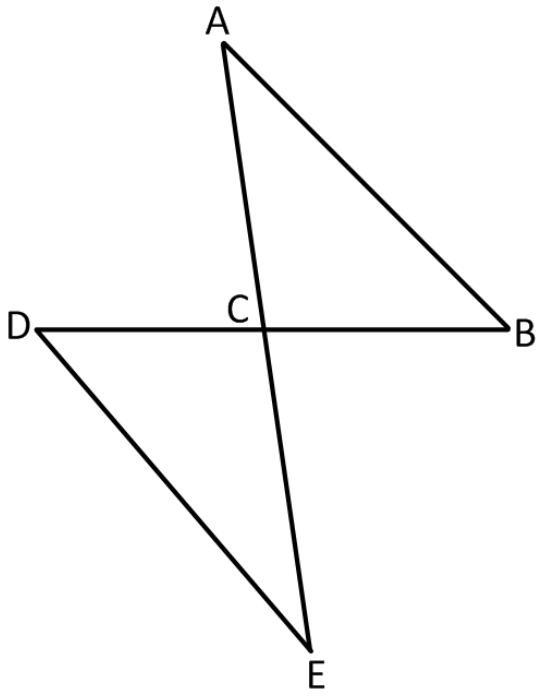


4) Given: $\angle L \cong \angle N$, $\angle LOM \cong \angle NMO$

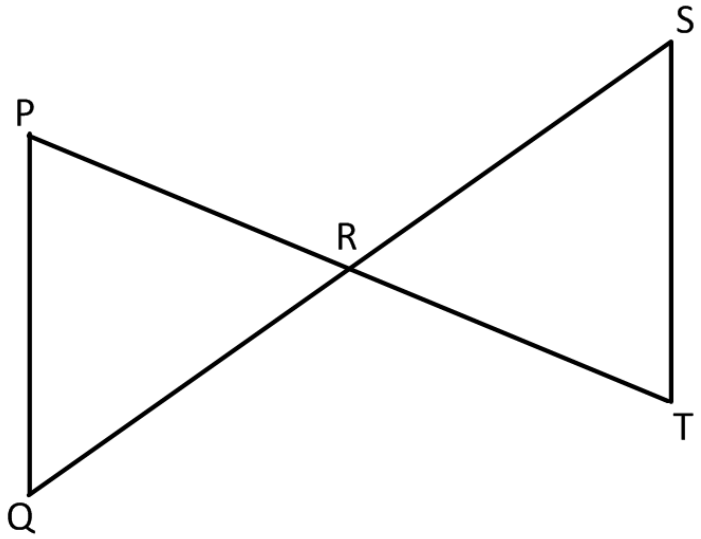
Prove: $\Delta LMO \cong \Delta NOM$



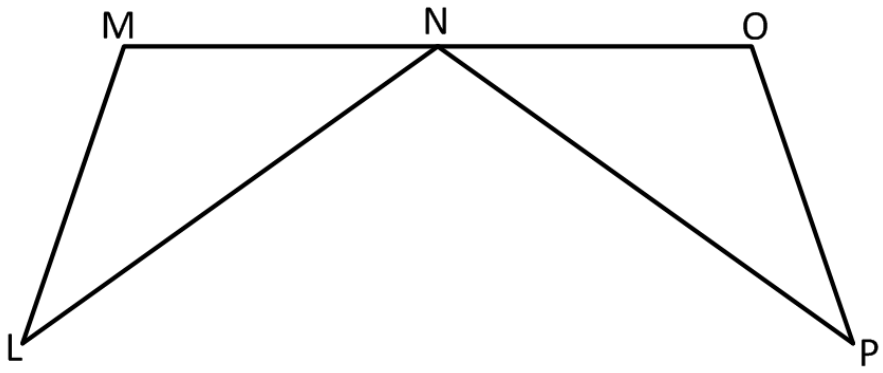
5) Given: $\overline{AE}$ bisects $\overline{BD}$, $\angle A \cong \angle E$
Prove: $\Delta ABC \cong \Delta EDC$



6) Given: $\overline{PQ} \parallel \overline{ST}, \overline{PR} \cong \overline{TR}$
Prove: $\Delta PQR \cong \Delta TSR$



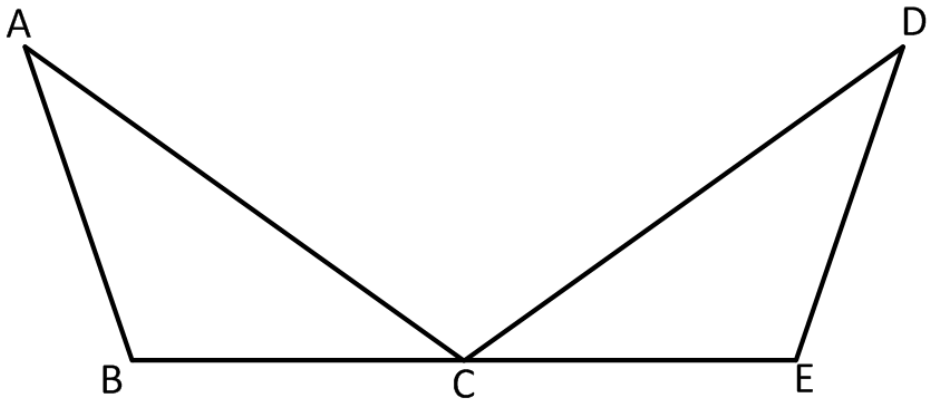
7) Given: N is the midpoint of $\overline{MO}$, $\overline{LM} \cong \overline{PO}$ and $\overline{LN} \cong \overline{PN}$
Prove: $\Delta LMN \cong \Delta PON$



8) Given: C is the midpoint of $\overline{BE}$, $\angle B \cong \angle E$, and $\overline{AB} \cong \overline{DE}$

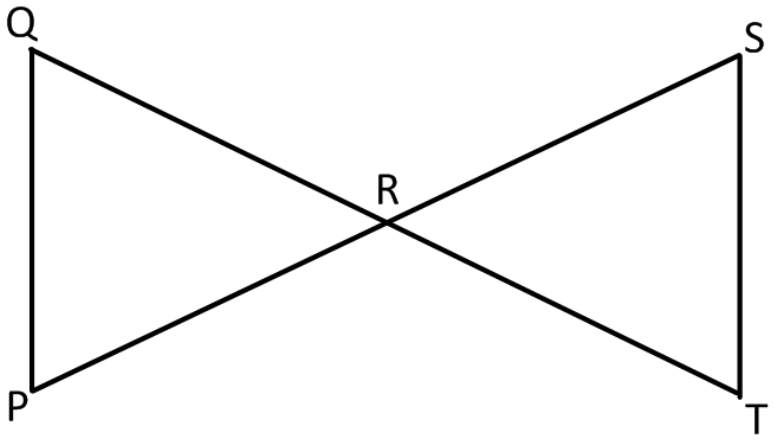
Prove: $\Delta ABC \cong \Delta DEC$

$\Delta PQS \cong \Delta RQS$



9) Given: $\overline{QT}$ bisects $\overline{SP}$, $\overline{SP}$ bisects $\overline{QT}$

Prove: $\Delta QRP \cong \Delta TRS$



10) Given: $\overline{LM} \cong \overline{NO}$, and $\angle M \cong \angle O$

Prove: $\Delta MPL \cong \Delta OPN$