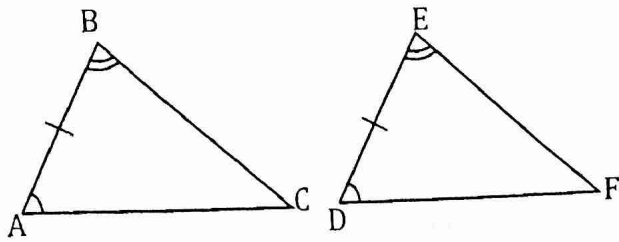


For these fill in any missing statements or reasons.

1.

Given: $\overline{AB} \cong \overline{DE}$, $\angle B \cong \angle E$, and $\angle A \cong \angle D$

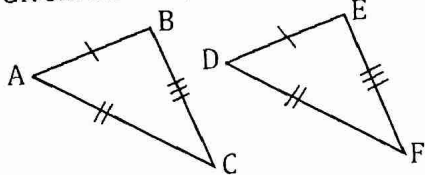


Prove: $\triangle ABC \cong \triangle DEF$

Statements	Reasons
1. $\overline{AB} \cong \overline{DE}$	1. Given
2. $\angle B \cong \angle E$	2. Given
3. $\angle A \cong \angle D$	3. Given
4. $\triangle ABC \cong \triangle DEF$	4. ASA

3.

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

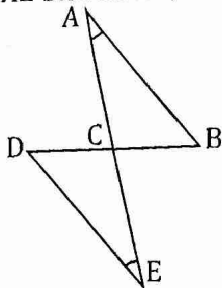


Prove: $\triangle ABC \cong \triangle DEF$

Statements	Reasons
1. $\overline{AB} \cong \overline{DE}$	1. Given
2. $\overline{AC} \cong \overline{DF}$	2. Given
3. $\overline{BC} \cong \overline{EF}$	3. Given
4. $\triangle ABC \cong \triangle DEF$	4. SSS

5.

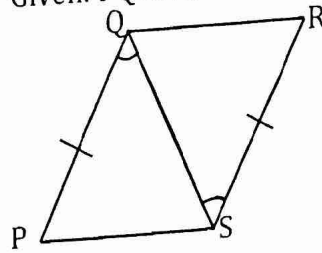
Given: \overline{AE} bisects \overline{BD} , $\angle A \cong \angle E$



Prove: $\triangle ABC \cong \triangle EDC$

Statement	Reason
\overline{AE} bisects \overline{BD}	Given
$\angle A \cong \angle E$	Given
$\angle ACB \cong \angle ECD$	Vertical \angle 's theorem
$m\overline{DC} = m\overline{BC}$	Definition of Bisector
$\overline{DC} \cong \overline{BC}$	Definition of Congruence
$\triangle ABC \cong \triangle EDC$	AAS

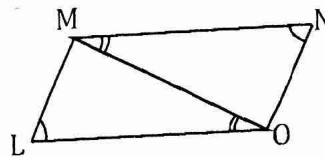
2. Given: $\overline{PQ} \cong \overline{RS}$, and $\angle PQS \cong \angle RSQ$



Prove: $\triangle PQS \cong \triangle RSQ$

Statements	Reasons
1. $\overline{PQ} \cong \overline{RS}$	1. Given
2. $\angle PQS \cong \angle RSQ$	2. Given
3. $\overline{QS} \cong \overline{SQ}$	3. Reflexive Property
4. $\triangle PQS \cong \triangle RSQ$	4. SAS

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

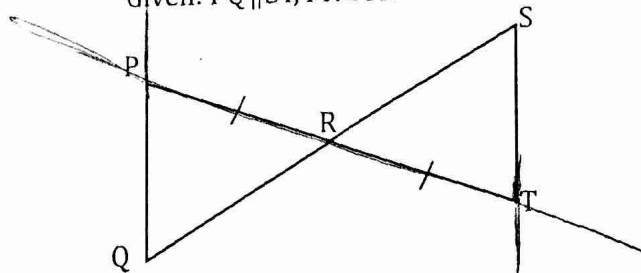


Prove: $\triangle LMO \cong \triangle NMO$

Statements	Reasons
1. $\angle L \cong \angle N$	1. Given
2. $\angle LOM \cong \angle NMO$	2. Given
3. $\overline{MO} \cong \overline{OM}$	3. Reflexive Property
4. $\triangle LMO \cong \triangle NMO$	4. AAS

6.

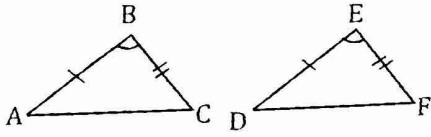
Given: $\overline{PQ} \parallel \overline{ST}$, $\overline{PR} \cong \overline{TR}$



Prove: $\triangle PQR \cong \triangle TSR$

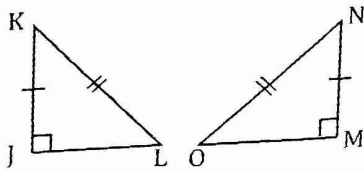
Statements	Reasons
1. $\overline{PR} \cong \overline{TR}$	1. Given
2. $\overline{PQ} \parallel \overline{ST}$	2. Given
3. $\angle P \cong \angle T$	3. Alternate Interior \angle 's theorem
4. $\angle PRQ \cong \angle TRS$	4. Vertical \angle 's theorem
5. $\triangle PQR \cong \triangle TSR$	5. ASA

19. Given: $\overline{AB} \cong \overline{DE}$, $\overline{BC} \cong \overline{EF}$, and $\angle B \cong \angle E$



Prove: $\triangle ABC \cong \triangle DEF$

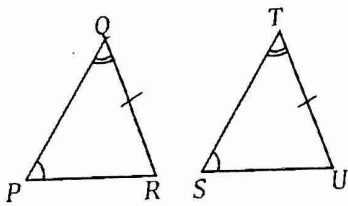
Statement	Reason
$\overline{AB} \cong \overline{DE}$	Given
$\overline{BC} \cong \overline{EF}$	Given
$\angle B \cong \angle E$	Given
$\triangle ABC \cong \triangle DEF$	SAS



Prove: $\triangle JKL \cong \triangle MNO$

Statement	Reason
$\overline{JK} \cong \overline{MN}$	Given
$\overline{KL} \cong \overline{NO}$	Given
$\angle KJL \cong \angle NMO$	Given
$\triangle JKL \cong \triangle MNO$	HL

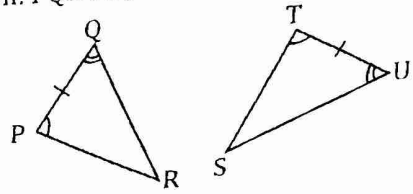
23. Given: $\angle P \cong \angle S$, $\angle Q \cong \angle T$, and $\overline{QR} \cong \overline{TU}$



Prove: $\triangle PQR \cong \triangle STU$

It is given that $\angle P \cong \angle S$, $\angle Q \cong \angle T$ and $\overline{QR} \cong \overline{TU}$. It follows $\triangle PQR \cong \triangle STU$ by AAS.

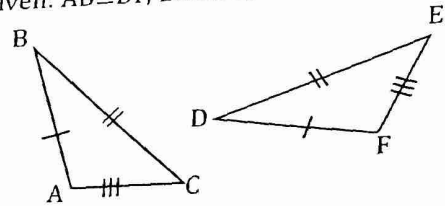
20. Given: $\overline{PQ} \cong \overline{TU}$, $\angle P \cong \angle T$, and $\angle Q \cong \angle U$



Prove: $\triangle PQR \cong \triangle TUS$

Statement	Reason
$\overline{PQ} \cong \overline{TU}$	Given
$\angle P \cong \angle T$	Given
$\angle Q \cong \angle U$	Given
$\triangle PQR \cong \triangle TUS$	ASA

22. Given: $\overline{AB} \cong \overline{DF}$, $\overline{BC} \cong \overline{DE}$, and $\overline{AC} \cong \overline{EF}$

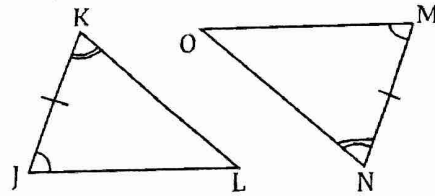


Prove: $\triangle ABD \cong \triangle FDE$

Statement	Reason
$\overline{AB} \cong \overline{DF}$	Given
$\overline{BC} \cong \overline{DE}$	Given
$\overline{AC} \cong \overline{EF}$	Given
$\triangle ABD \cong \triangle FDE$	SSS

24.

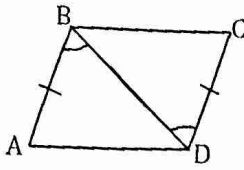
Given: $\angle J \cong \angle M$, $\overline{JK} \cong \overline{MN}$ and $\angle K \cong \angle N$



Prove: $\triangle JKL \cong \triangle MNO$

Statement	Reason
$\angle J \cong \angle M$	Given
$\overline{JK} \cong \overline{MN}$	Given
$\angle K \cong \angle N$	Given
$\triangle JKL \cong \triangle MNO$	ASA

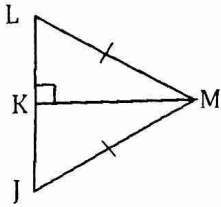
25. Given: $\overline{AB} \cong \overline{CD}$, $\angle ABD \cong \angle CDB$



Prove: $\triangle ABD \cong \triangle CDB$

Statement	Reason
$\overline{AB} \cong \overline{CD}$	Given
$\angle ABD \cong \angle CDB$	Given
$\overline{BD} \cong \overline{DB}$	Reflexive property
$\triangle ABD \cong \triangle CDB$	SSS

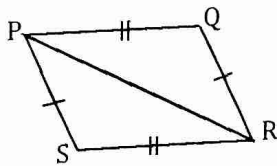
Given: $\overline{LM} \cong \overline{JM}$



Prove: $\triangle LKM \cong \triangle JKM$

Statement	Reason
$\overline{LM} \cong \overline{JM}$	Given
$\overline{KM} \cong \overline{KM}$	Reflexive prop.
$\triangle LKM \cong \triangle JKM$	HL

Given: $\overline{PS} \cong \overline{QR}$, $\overline{PQ} \cong \overline{SR}$

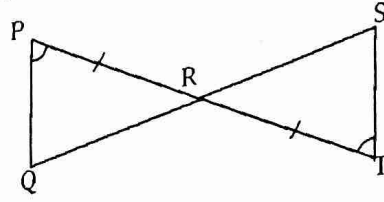


Prove: $\triangle PRS \cong \triangle RPQ$

Statement	Reason
$\overline{PS} \cong \overline{RQ}$	Given
$\overline{PQ} \cong \overline{SR}$	Given
$\overline{PR} \cong \overline{RP}$	Reflexive property
$\triangle PRS \cong \triangle RPQ$	SSS

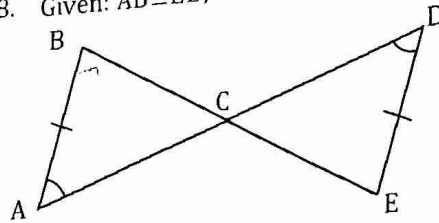
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26. Given: $\overline{PR} \cong \overline{TR}$, $\angle P \cong \angle T$



Prove: $\triangle ABC \cong \triangle DBC$
 It is given that $\overline{PR} \cong \overline{TR}$ and $\angle P \cong \angle T$.
 By vertical \angle 's theorem, $\angle PRQ \cong \angle TRS$.
 Thus, $\triangle ABC \cong \triangle DBC$ by ASA.

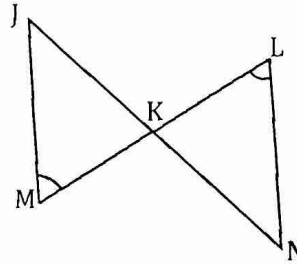
28. Given: $\overline{AB} \cong \overline{ED}$, $\angle A \cong \angle D$



Prove: $\triangle ABC \cong \triangle DCE$

Statement	Reason
$\overline{AB} \cong \overline{ED}$	Given
$\angle A \cong \angle D$	Given
$\angle BCA \cong \angle ECD$	vertical \angle 's theorem
$\triangle ABC \cong \triangle DCE$	AAS

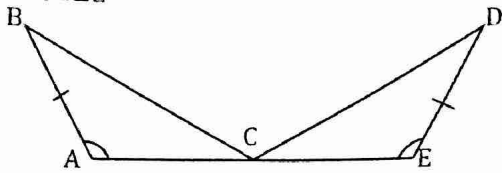
30. Given: \overline{JN} Bisects \overline{ML} , $\angle M \cong \angle L$



Prove: $\triangle JMK \cong \triangle LNK$

Statement	Reason
\overline{JN} bisects \overline{ML}	Given
$\angle M \cong \angle L$	Given
$\angle JKM \cong \angle LKN$	vertical \angle 's theorem
$m\overline{MK} = m\overline{LK}$	Def. of bisects
$\overline{MK} \cong \overline{LK}$	Def. of Congruence
$\triangle JMK \cong \triangle LNK$	ASA

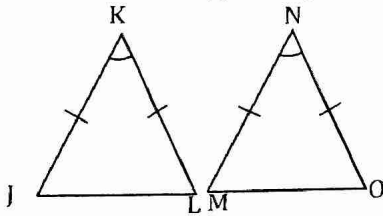
31. Given: C is the midpoint of \overline{AE} , $\overline{BA} \cong \overline{DE}$, and $\angle A \cong \angle E$



Prove: $\triangle ABC \cong \triangle DEC$

Statement	Reason
C is the midpoint of \overline{AE}	Given
$\overline{BA} \cong \overline{DE}$	Given
$\angle A \cong \angle E$	Given
$\overline{AC} \cong \overline{EC}$	Def. of midpoint
$\triangle ABC \cong \triangle DEC$	SAS

33. Given: $\angle K \cong \angle N$, $\overline{JK} \cong \overline{MN}$, $\overline{KL} \cong \overline{NO}$

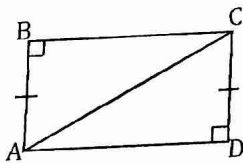


Prove: $\triangle JKL \cong \triangle MNO$

Statement	Reason
$\angle K \cong \angle N$	Given
$\overline{JK} \cong \overline{MN}$	Given
$\overline{KL} \cong \overline{NO}$	Given
$\triangle JKL \cong \triangle MNO$	SAS

35.

Given: $\overline{AB} \cong \overline{DC}$

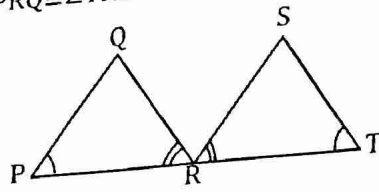


Prove: $\triangle ABC \cong \triangle CDA$

It is given that $\overline{AB} \cong \overline{DC}$. By the reflexive property, it is known that $\overline{AC} \cong \overline{CA}$. Thus, $\triangle ABC \cong \triangle CDA$ by HL.

32.

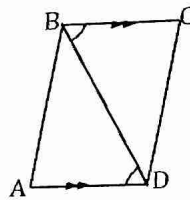
Given: R is the midpoint of \overline{PT} , $\angle P \cong \angle T$, and $\angle PRQ \cong \angle TRS$



Prove: $\triangle PQR \cong \triangle TRS$

It is given that R is the midpoint of \overline{PT} , $\angle P \cong \angle T$ and $\angle PRQ \cong \angle TRS$. By definition of midpoint, $\overline{PR} \cong \overline{TR}$. Thus, $\triangle PQR \cong \triangle TRS$ ASA

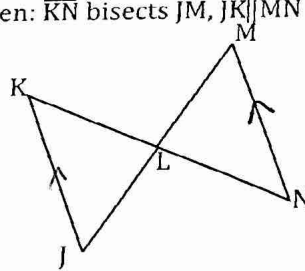
34. Given: $\overline{BA} \parallel \overline{CD}$, $\angle ADB \cong \angle CBD$



Prove: $\triangle ABD \cong \triangle CDB$

Statement	Reason
$\overline{BC} \parallel \overline{CD}$	Given
$\angle ADB \cong \angle CBD$	Given
$\overline{BD} \cong \overline{DB}$	reflexive prop
$\triangle ABD \cong \triangle CDB$	Alt. int. \angle 's theorem
$\triangle ABO \cong \triangle COB$	ASA

36. Given: \overline{KN} bisects \overline{JM} , $\overline{JK} \parallel \overline{MN}$



Prove: $\triangle JKL \cong \triangle MNL$

Statement	Reason
\overline{KN} bisects \overline{JM}	Given
$\overline{JK} \parallel \overline{MN}$	Given
$\angle JKL \cong \angle MNL$	Alt. int. \angle 's theorem
$\angle JLK \cong \angle MNL$	Alt. int. \angle 's theorem
$m \angle JKL = m \angle MNL$	Def. of Bisects
$\overline{JK} \cong \overline{MN}$	Def of \parallel
$\triangle JKL \cong \triangle MNL$	AAS