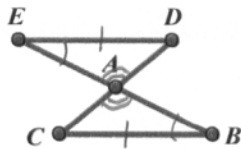


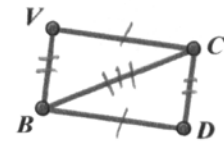
Congruent Triangles Worksheet

1) GIVEN:
 $\angle B \cong \angle E$ & $\overline{CB} \cong \overline{DE}$
 PROVE:
 $\triangle EAD \cong \triangle BAC$



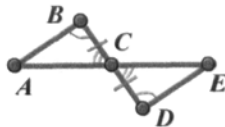
STATEMENT	REASON
1) $\angle B \cong \angle E, \overline{CB} \cong \overline{DE}$	1) Given
2) $\angle EAD \cong \angle BAC$	2) Vert. \angle 's \cong
3) $\triangle EAD \cong \triangle BAC$	3) AAS

2) GIVEN:
 $\overline{VC} \cong \overline{DB}$ & $\overline{VB} \cong \overline{DC}$
 PROVE:
 $\triangle BVC \cong \triangle CDB$



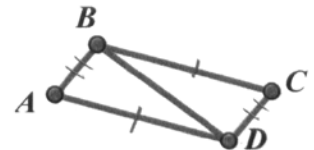
STATEMENT	REASON
1) $\overline{VC} \cong \overline{DB}, \overline{VB} \cong \overline{DC}$	1) Given
2) $\overline{BC} \cong \overline{BC}$	2) Reflexive
3) $\triangle BVC \cong \triangle CDB$	3) SSS

C3) GIVEN:
 $\angle B \cong \angle D$ & $\overline{BC} \cong \overline{DC}$
 PROVE:
 $\triangle ACB \cong \triangle ECD$



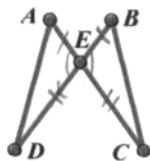
STATEMENT	REASON
1) $\angle B \cong \angle D, \overline{BC} \cong \overline{DC}$	1) Given
2) $\angle ACB \cong \angle ECD$	2) Vert \angle 's \cong
3) $\triangle ACB \cong \triangle ECD$	3) ASA

4) GIVEN:
 $\overline{AD} \cong \overline{CB}$ & $\overline{AB} \cong \overline{CD}$
 PROVE:
 $\triangle ABD \cong \triangle CDB$



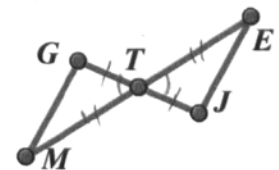
STATEMENT	REASON
1) $\overline{AD} \cong \overline{CB}, \overline{AB} \cong \overline{CD}$	1) Given
2) $\overline{BD} \cong \overline{BD}$	2) Reflexive
3) $\triangle ABD \cong \triangle CDB$	3) SSS

5) GIVEN:
 $\overline{AE} \cong \overline{BE}$ & $\overline{DE} \cong \overline{CE}$
 PROVE:
 $\triangle AED \cong \triangle BEC$



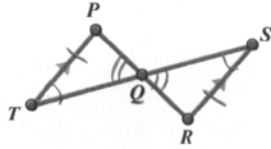
STATEMENT	REASON
1) $\overline{AE} \cong \overline{BE}, \overline{DE} \cong \overline{CE}$	1) Given
2) $\angle AED \cong \angle BEC$	2) Vert. \angle 's \cong
3) $\triangle AED \cong \triangle BEC$	3) SAS

6) GIVEN:
 T is the midpoint of \overline{ME}
 & T is the midpoint of \overline{GJ}
 PROVE:
 $\triangle MGT \cong \triangle EJT$



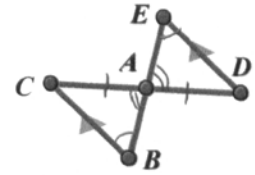
STATEMENT	REASON
1) T is midpt of \overline{ME} T is midpt. of \overline{GJ}	1) Given
2) $\overline{MT} \cong \overline{TE}$ $\overline{GT} \cong \overline{TJ}$	2) Def. midpt.
3) $\angle MTG \cong \angle EJT$	3) Vert \angle 's \cong
4) $\triangle MGT \cong \triangle EJT$	4) SAS

7) GIVEN:
 $\overline{PT} \parallel \overline{SR}$ & $\overline{PT} \cong \overline{RS}$
 PROVE:
 $\overline{TQ} \cong \overline{SQ}$



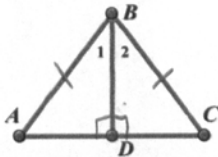
STATEMENT	REASON
1) $\overline{PT} \parallel \overline{SR}, \overline{PT} \cong \overline{RS}$	1) Given
2) $\angle T \cong \angle S$ (or $\angle P \cong \angle R$)	2) Alt. Int. \angle 's
3) $\angle PQT \cong \angle RQS$	3) Vert. \angle 's \cong
4) $\triangle PQT \cong \triangle RQS$	4) AAS
5) $\overline{TQ} \cong \overline{SQ}$	5) CPCTC

8) GIVEN:
 $\overline{CB} \parallel \overline{ED}$ & A is the midpoint of \overline{CD}
 PROVE:
 $\triangle EAD \cong \triangle BAC$



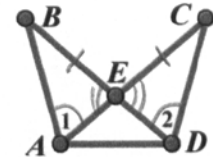
STATEMENT	REASON
1) $\overline{CB} \parallel \overline{ED}$ A is midpt. of \overline{CD}	1) Given
2) $\angle E \cong \angle B$ (or $\angle C \cong \angle D$)	2) Alt. Int. \angle 's
3) $\overline{CA} \cong \overline{AD}$	3) Def. midpt.
4) $\angle EAD \cong \angle BAC$	4) Vert. \angle 's \cong
5) $\triangle EAD \cong \triangle BAC$	5) AAS (or ASA)

9) GIVEN:
 $\overline{BD} \perp \overline{AC}$ & $\overline{BA} \cong \overline{BC}$
 PROVE:
 $\angle 1 \cong \angle 2$



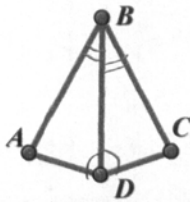
STATEMENT	REASON
1) $\overline{BD} \perp \overline{AC}, \overline{BA} \cong \overline{BC}$	1) Given
2) $\angle ADB$ & $\angle CDB$ are rt. \angle 's	2) Def. perp.
3) $\overline{BD} \cong \overline{BD}$	3) Reflex.
4) $\triangle ADB \cong \triangle CDB$	4) HL
5) $\angle 1 \cong \angle 2$	5) CPCTC

10) GIVEN:
 $\angle 1 \cong \angle 2$ & $\overline{EB} \cong \overline{EC}$
 PROVE:
 $\triangle AEB \cong \triangle DEC$



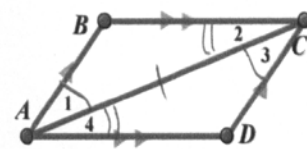
STATEMENT	REASON
1) $\angle 1 \cong \angle 2, \overline{EB} \cong \overline{EC}$	1) Given
2) $\angle AEB \cong \angle DEC$	2) Vert. \angle 's \cong
3) $\triangle AEB \cong \triangle DEC$	3) AAS

11) GIVEN:
 \overline{BD} bisects $\angle ADC$
 \overline{BD} bisects $\angle ABC$
 PROVE:
 $\triangle DAB \cong \triangle DCB$



STATEMENT	REASON
1) \overline{BD} bisects $\angle ADC$ \overline{BD} bisects $\angle ABC$	1) Given
2) $\angle ADB \cong \angle CDB$ $\angle ABD \cong \angle CBD$	2) Def. \angle bisector
3) $\overline{BD} \cong \overline{BD}$	3) Reflex.
4) $\triangle DAB \cong \triangle DCB$	4) ASA

12) GIVEN:
 $\overline{AB} \parallel \overline{CD}$
 $\overline{BC} \parallel \overline{DA}$
 PROVE:
 $\angle B \cong \angle D$



STATEMENT	REASON
1) $\overline{AB} \parallel \overline{CD}, \overline{BC} \parallel \overline{DA}$	1) Given
2) $\angle 1 \cong \angle 3$ $\angle 2 \cong \angle 4$	2) Alt. Int. \angle 's
3) $\overline{AC} \cong \overline{AC}$	3) Reflex.
4) $\triangle ABC \cong \triangle CDA$	4) ASA
5) $\angle B \cong \angle D$	5) CPCTC