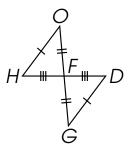
SSS Triangle Congruence Postulate

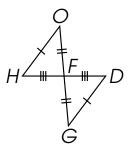
Jonathan R. Bacolod

Sauyo High School

SSS (Side-Side-Side) Congruence Postulate

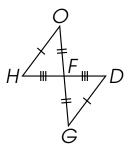
If the three sides of one triangle are congruent to the three sides of another triangle, then the triangles are congruent.



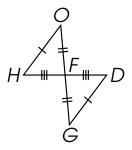




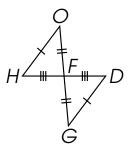
Show that $\triangle OFH$ and $\triangle GFD$ are congruent using the SSS triangle congruence postulate.



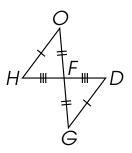
 $\overline{HO}\cong\overline{DG}$



$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong$

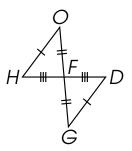


$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$



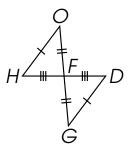
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$

$$\overline{\mathit{HF}}\cong$$



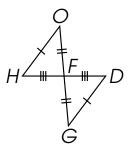
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$

$$\overline{\mathit{HF}}\cong\overline{\mathit{DF}}$$



$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$

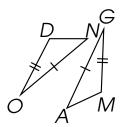
$$\overline{\mathit{HF}}\cong\overline{\mathit{DF}}$$
 \therefore $\triangle\mathit{OFH}\cong$

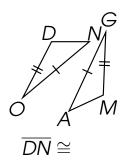


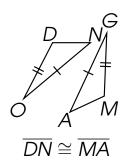
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$

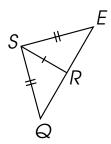
$$\overline{\mathit{HF}}\cong\overline{\mathit{DF}}$$

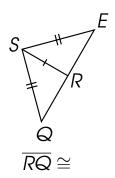
 $\therefore \triangle\mathit{OFH}\cong\triangle\mathit{GFD}$

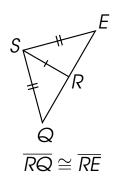


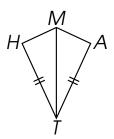


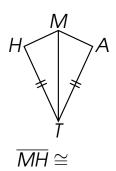


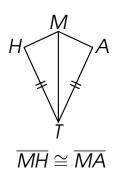




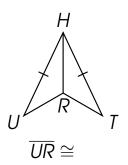


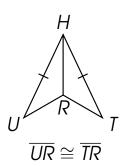


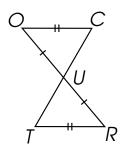


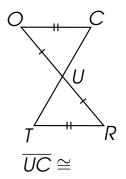


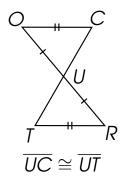


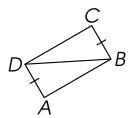


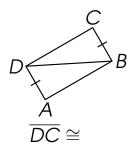


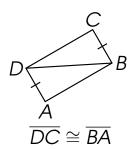


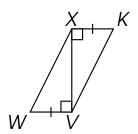


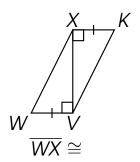


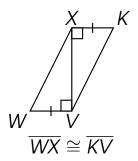


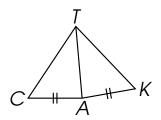


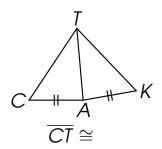


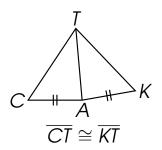


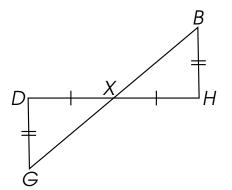


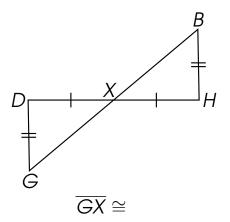


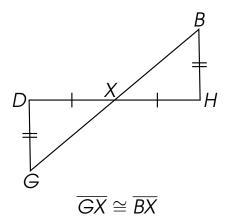


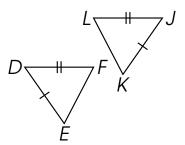


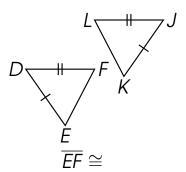


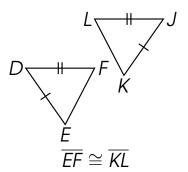


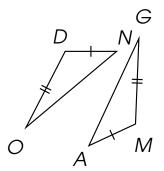


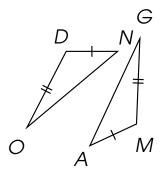




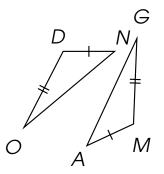




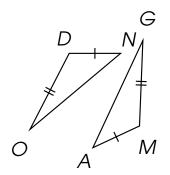




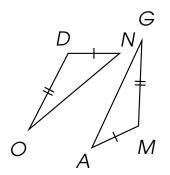




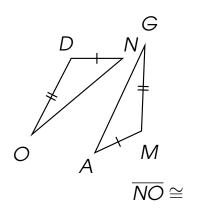
$$\overline{DN}\cong\overline{MA}$$



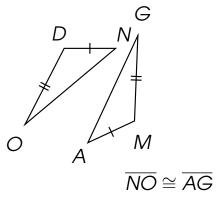
$$\overline{DN} \cong \overline{MA}$$
 $\overline{DO} \cong$



$$\overline{DN} \cong \overline{MA}$$
 $\overline{DO} \cong \overline{MG}$

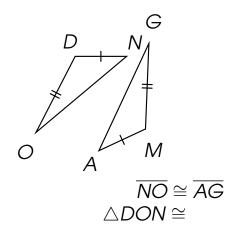


$$\frac{\overline{DN} \cong \overline{MA}}{\overline{DO} \cong \overline{MG}}$$

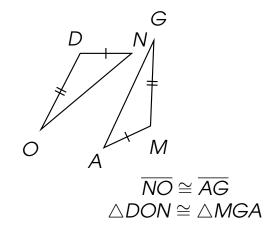


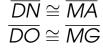
$$\frac{\overline{DN} \cong \overline{MA}}{\overline{DO} \cong \overline{MG}}$$

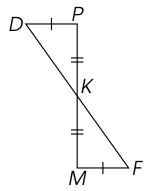


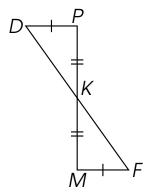


$$\frac{\overline{DN} \cong \overline{MA}}{\overline{DO} \cong \overline{MG}}$$

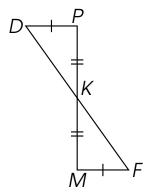




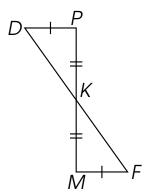




$$\overline{DP}\cong$$

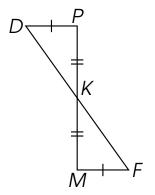


$$\overline{DP}\cong \overline{FM}$$

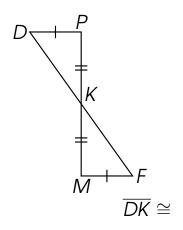


$$\overline{\textit{DP}}\cong\overline{\textit{FM}}$$

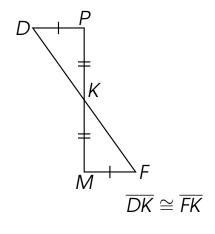
 $\overline{\textit{PK}}\cong$



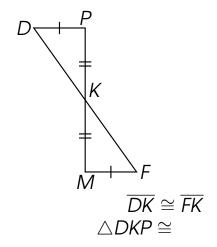
$$\overline{DP} \cong \overline{FM}$$
 $\overline{PK} \cong \overline{MK}$



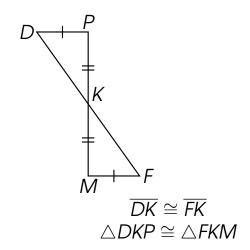
$$\overline{DP} \cong \overline{FM}$$
 $\overline{PK} \cong \overline{MK}$



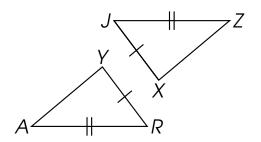
$$\overline{DP} \cong \overline{FM} \\
\overline{PK} \cong \overline{MK}$$

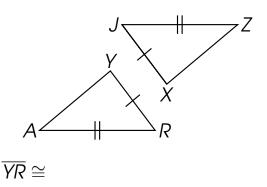


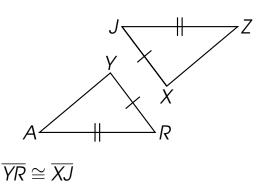
Complete the statements using the SSS congruence postulate.

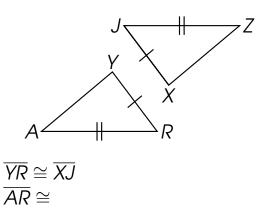


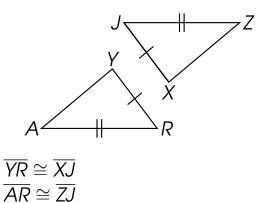
 $\frac{\overline{DP} \cong \overline{FM}}{\overline{PK} \cong \overline{MK}}$

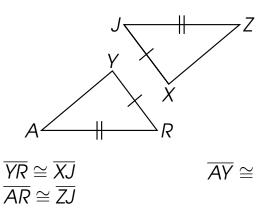


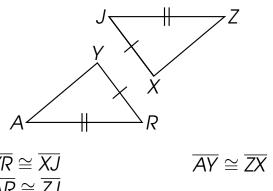


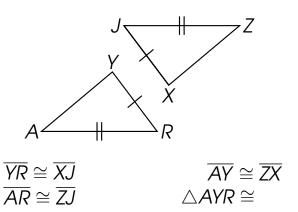


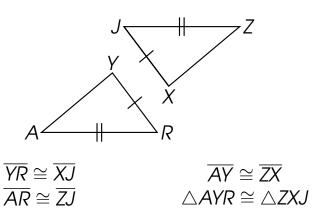


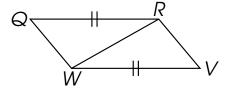


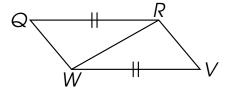




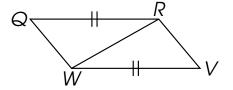




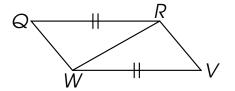




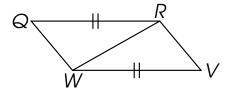
$$\overline{RW}\cong$$



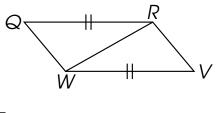
$$\overline{RW}\cong\overline{WR}$$



$$\frac{\overline{RW}\cong\overline{WR}}{\overline{QR}\cong}$$

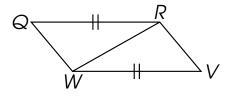


$$\frac{\overline{RW} \cong \overline{WR}}{\overline{QR} \cong \overline{VW}}$$

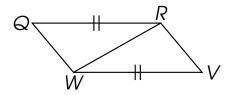


$$\frac{\overline{RW} \cong \overline{WR}}{\overline{QR} \cong \overline{VW}}$$

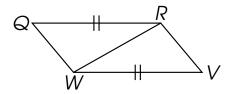
$$\overline{\mathsf{QW}}\cong$$



$$\overline{RW} \cong \overline{WR} \\
\overline{QR} \cong \overline{VW}$$

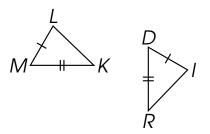


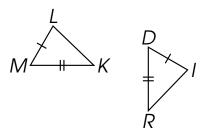
$$\overline{RW} \cong \overline{WR} \qquad \overline{QW} \cong \overline{VR} \\
\overline{QR} \cong \overline{VW} \qquad \triangle QRW \cong$$



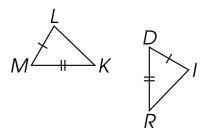
$$\overline{RW} \cong \overline{WR}
\overline{QR} \cong \overline{VW}
\overline{QR} \cong \overline{VW}$$

$$\overline{QW} \cong \overline{VR}
\triangle QRW \cong \triangle VWR$$

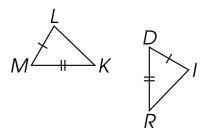




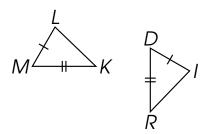
$$\overline{\it LM}\cong$$



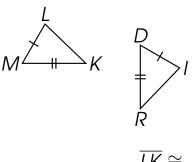
$$\overline{LM}\cong\overline{ID}$$



$$\overline{LM} \cong \overline{ID}$$
 $\overline{KM} \cong$

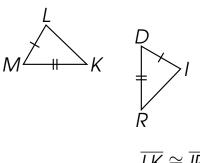


$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$



$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$

$$\overline{\mathit{LK}}\cong$$

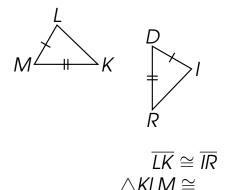


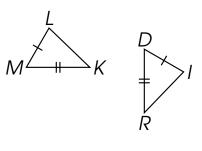
$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$

$$\overline{\mathit{LK}}\cong\overline{\mathit{IR}}$$

 $\overline{LM} \cong \overline{ID}$

 $\overline{KM} \cong \overline{RD}$

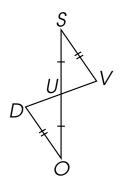


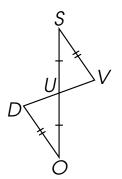


$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$

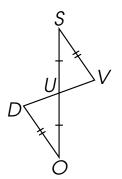
$$\overline{LK} \cong \overline{IR}$$

 $\triangle KLM \cong \triangle RID$

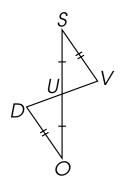




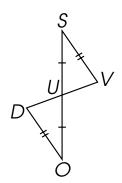




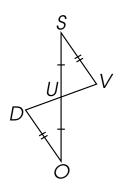
$$\overline{\mathit{UO}}\cong\overline{\mathit{US}}$$



$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong$



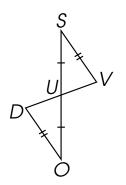
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$



$$\overline{UO} \cong \overline{US}$$

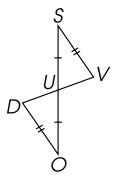
 $\overline{DO} \cong \overline{VS}$

$$\overline{UD} \cong$$



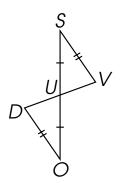
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$

$$\overline{\mathit{UD}}\cong \overline{\mathit{UV}}$$



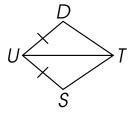
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$

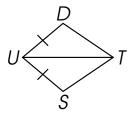
$$\overline{UD}\cong \overline{UV}\\\triangle DUO\cong$$



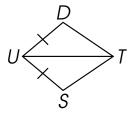
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$

$$\overline{UD} \cong \overline{UV}$$
$$\triangle DUO \cong \triangle VUS$$

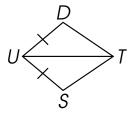




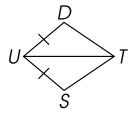
$$\overline{\mathit{UT}}\cong$$



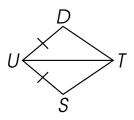
$$\overline{\mathit{UT}}\cong\overline{\mathit{UT}}$$



$$\overline{UT}\cong\overline{UT}$$
 $\overline{DU}\cong$

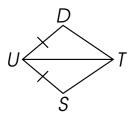


$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$



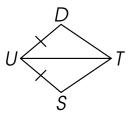
$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$

$$\overline{DT} \cong$$



$$\frac{\overline{UT} \cong \overline{UT}}{\overline{DU} \cong \overline{SU}}$$

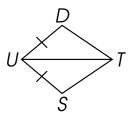
$$\overline{\mathit{DT}}\cong\overline{\mathit{ST}}$$



$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$

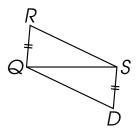
$$\overline{DT}\cong \overline{ST}$$

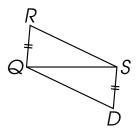
 $\triangle DTU\cong$



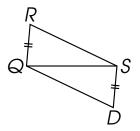
$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$

$$\overline{DT} \cong \overline{ST}$$
$$\triangle DTU \cong \triangle STU$$

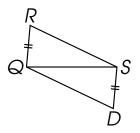




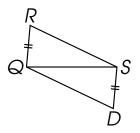
$$\overline{QS}\cong$$



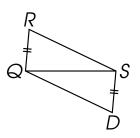
$$\overline{QS}\cong \overline{SQ}$$



$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong$

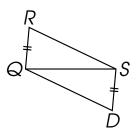


$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$



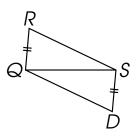
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$

$$\overline{\it RS}\cong$$



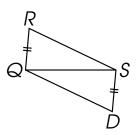
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$

$$\overline{\it RS}\cong \overline{\it DQ}$$



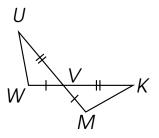
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$

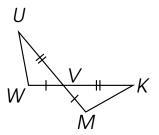
$$\overline{RS}\cong\overline{DQ}$$
 $\triangle RQS\cong$



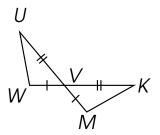
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$

$$\overline{RS}\cong\overline{DQ}$$
 $\triangle RQS\cong\triangle DSQ$

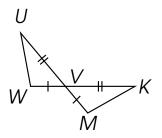




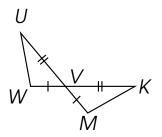




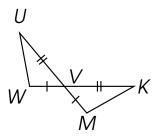
$$\overline{VW}\cong \overline{VM}$$



$$\overline{VW} \cong \overline{VM}$$
 $\overline{UV} \cong$

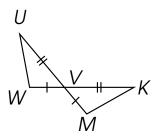


$$\overline{VW} \cong \overline{VM} \\
\overline{UV} \cong \overline{KV}$$



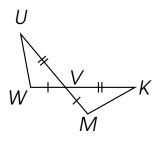
$$\overline{VW} \cong \overline{VM} \\
\overline{UV} \cong \overline{KV}$$

$$\overline{\mathit{UW}}\cong$$



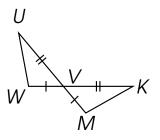
$$\overline{VW} \cong \overline{VM}$$
 $\overline{UV} \cong \overline{KV}$

$$\overline{\mathit{UW}}\cong\overline{\mathit{KM}}$$



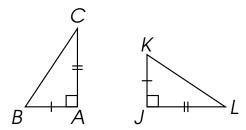
$$\overline{VW} \cong \overline{VM}$$
 $\overline{UV} \cong \overline{KV}$

$$\overline{UW} \cong \overline{KM}$$
$$\triangle UVW \cong$$

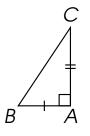


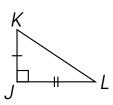
$$\overline{VW} \cong \overline{VM}$$
 $\overline{UV} \cong \overline{KV}$

$$\overline{UW} \cong \overline{KM}$$
$$\triangle UVW \cong \triangle KVM$$

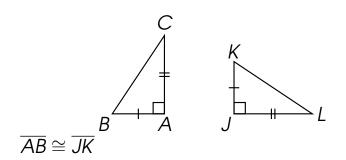


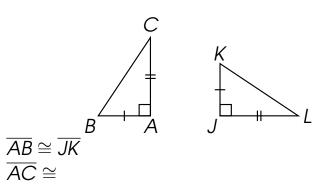
Complete the statements using the SSS congruence postulate.

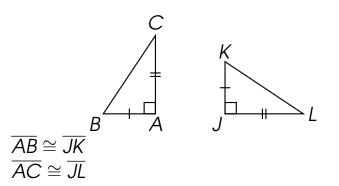


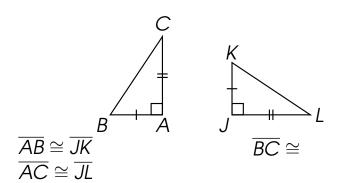


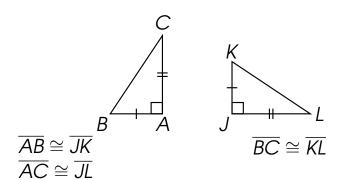
 $\overline{AB}\cong$

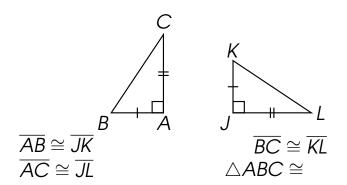


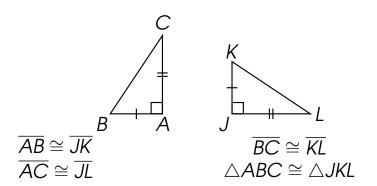












Thank you for watching.