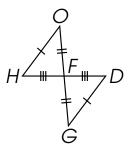
# SSS Triangle Congruence Postulate

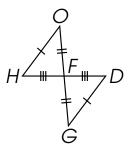
Jonathan R. Bacolod

Sauyo High School

# SSS (Side-Side-Side) Congruence Postulate

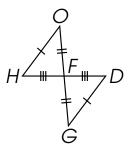
If the three sides of one triangle are congruent to the three sides of another triangle, then the triangles are congruent.



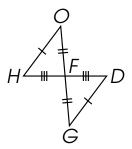




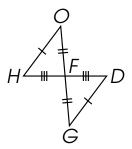
Show that  $\triangle OFH$  and  $\triangle GFD$  are congruent using the SSS triangle congruence postulate.



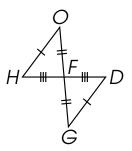
 $\overline{HO}\cong\overline{DG}$ 



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

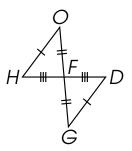


$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$ 



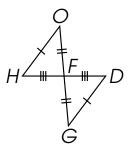
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$ 

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



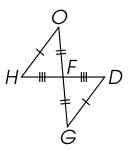
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$ 

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



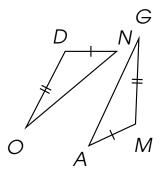
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$ 

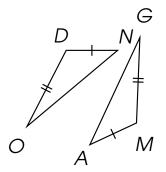
$$\overline{\mathit{HF}}\cong\overline{\mathit{DF}}$$
  
:.  $\triangle\mathit{OFH}\cong$ 



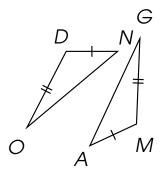
$$\overline{HO} \cong \overline{DG}$$
 $\overline{FO} \cong \overline{FG}$ 

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

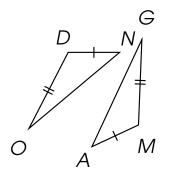




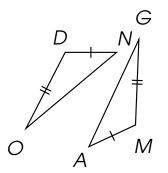




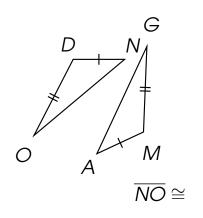
$$\overline{DN}\cong\overline{MA}$$



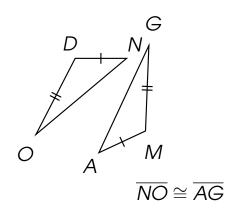
$$\overline{DN} \cong \overline{MA}$$
 $\overline{DO} \cong$ 



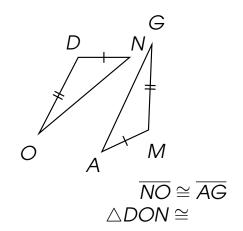
$$\overline{DN} \cong \overline{MA}$$
 $\overline{DO} \cong \overline{MG}$ 

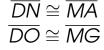


$$\frac{\overline{DN} \cong \overline{MA}}{\overline{DO} \cong \overline{MG}}$$



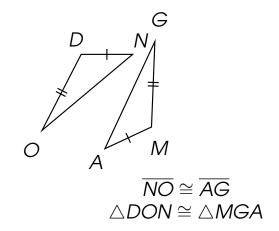
$$\frac{\overline{DN} \cong \overline{MA}}{\overline{DO} \cong \overline{MG}}$$

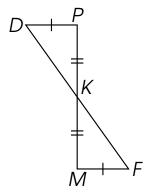




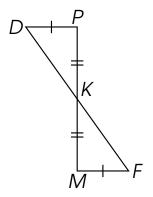
 $\overline{DN} \cong \overline{MA}$ 

 $\overline{DO} \simeq \overline{MG}$ 

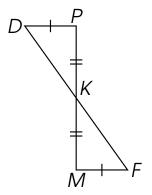




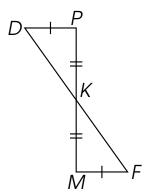
Complete the statements using the SSS congruence postulate.



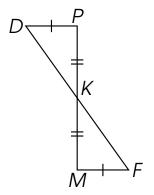
 $\overline{\it DP}\cong$ 



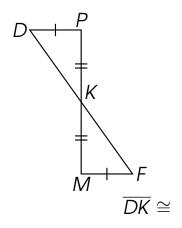
$$\overline{DP} \cong \overline{FM}$$



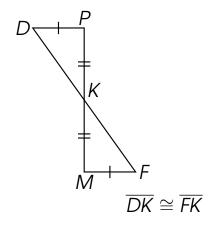
$$\overline{\textit{DP}}\cong\overline{\textit{FM}}$$
  
 $\overline{\textit{PK}}\cong$ 

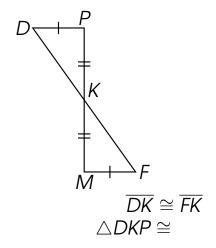


$$\overline{DP} \cong \overline{FM}$$
 $\overline{PK} \cong \overline{MK}$ 

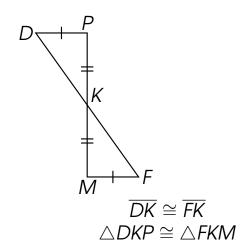


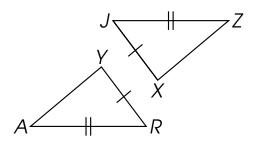
$$\overline{DP} \cong \overline{FM}$$
 $\overline{PK} \cong \overline{MK}$ 

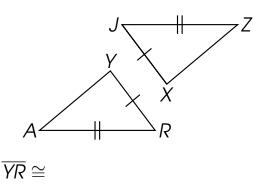


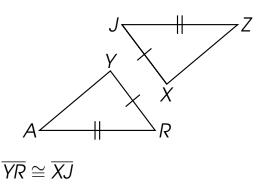


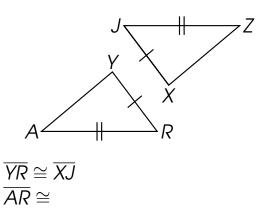
$$\frac{\overline{DP} \cong \overline{FM}}{\overline{PK} \cong \overline{MK}}$$

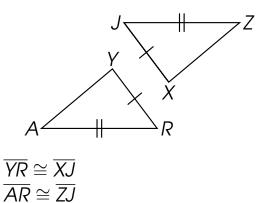


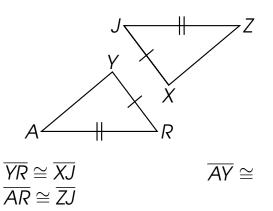


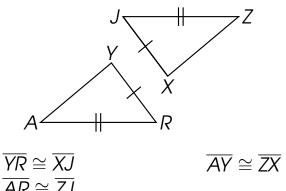




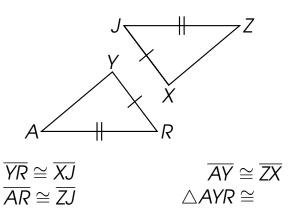


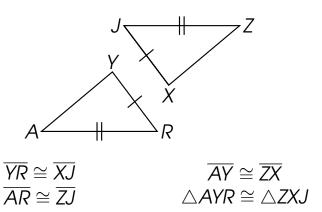


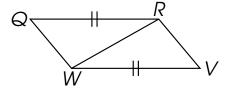


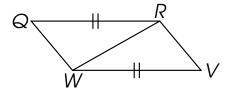


$$\frac{YR \cong XJ}{AR \cong \overline{ZJ}}$$

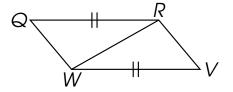




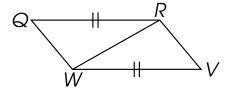




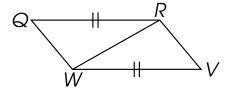
$$\overline{RW}\cong$$



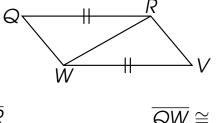
$$\overline{RW}\cong\overline{WR}$$



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

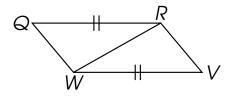


$$\frac{\overline{RW} \cong \overline{WR}}{\overline{QR} \cong \overline{VW}}$$

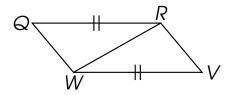


$$\frac{\overline{RW} \cong \overline{WR}}{\overline{QR} \cong \overline{VW}}$$

$$QW \cong$$

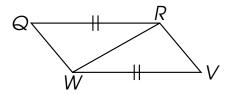


$$\overline{RW} \cong \overline{WR} \\
\overline{QR} \cong \overline{VW}$$



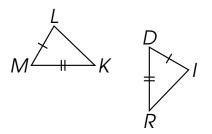
$$\frac{\overline{RW} \cong \overline{WR}}{\overline{QR} \cong \overline{VW}}$$

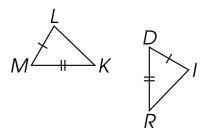
$$\overline{QW}\cong \overline{VR}$$
  
 $\triangle QRW\cong$ 



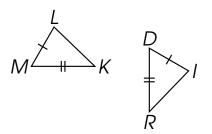
$$\overline{RW} \cong \overline{WR} 
\overline{QR} \cong \overline{VW} 
\overline{QR} \cong \overline{VW}$$

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

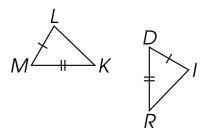




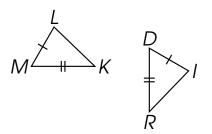
$$\overline{LM}\cong$$



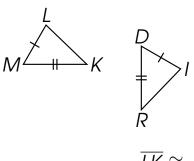
$$\overline{LM}\cong\overline{ID}$$



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

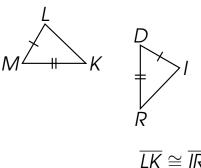


$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$



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

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

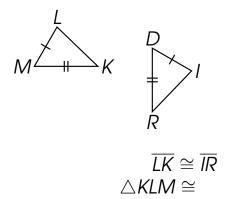


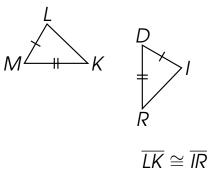
$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$

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

 $\overline{IM} \cong \overline{ID}$ 

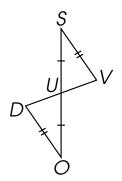
 $\overline{KM} \cong \overline{RD}$ 

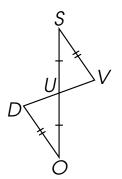




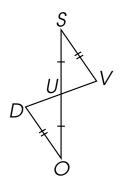
$$\frac{\overline{LM} \cong \overline{ID}}{\overline{KM} \cong \overline{RD}}$$

$$\overline{\mathit{LK}}\cong\overline{\mathit{IR}}$$
  
 $\triangle\mathit{KLM}\cong\triangle\mathit{RID}$ 

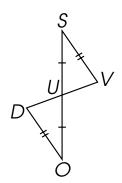




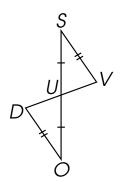




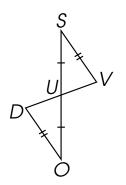
$$\overline{\mathit{UO}}\cong\overline{\mathit{US}}$$



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

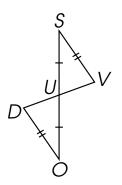


$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$ 



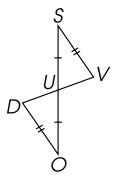
$$\overline{UO} \cong \overline{US}$$
  
 $\overline{DO} \cong \overline{VS}$ 

$$\overline{UD} \cong$$



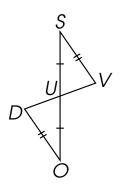
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$ 

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



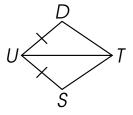
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$ 

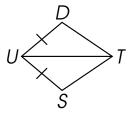
$$\overline{UD}\cong \overline{UV}$$
$$\triangle DUO\cong$$



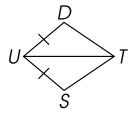
$$\overline{UO} \cong \overline{US}$$
 $\overline{DO} \cong \overline{VS}$ 

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

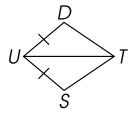




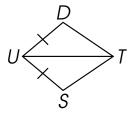
$$\overline{\it UT}\cong$$



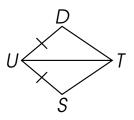
$$\overline{\mathit{UT}}\cong\overline{\mathit{UT}}$$



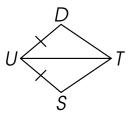
$$\overline{UT}\cong\overline{UT}$$
 $\overline{DU}\cong$ 



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

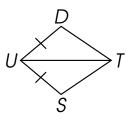


$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$



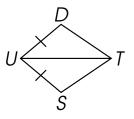
$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$

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



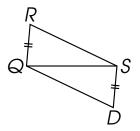
$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$

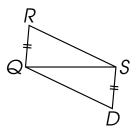
$$\overline{DT}\cong \overline{ST}$$
  $\triangle DTU\cong$ 



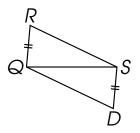
$$\overline{UT} \cong \overline{UT} \\
\overline{DU} \cong \overline{SU}$$

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

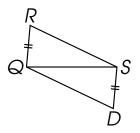




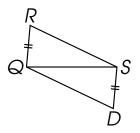
$$\overline{\mathcal{QS}}\cong$$



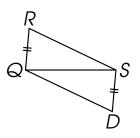
$$\overline{\mathit{QS}}\cong\overline{\mathit{SQ}}$$



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

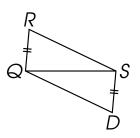


$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$ 



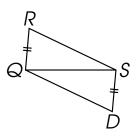
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$ 

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



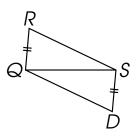
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$ 

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



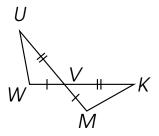
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$ 

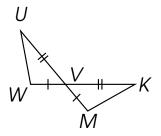
$$\overline{RS}\cong\overline{DQ}$$
  $\triangle RQS\cong$ 



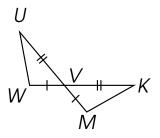
$$\overline{QS} \cong \overline{SQ}$$
 $\overline{RQ} \cong \overline{DS}$ 

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

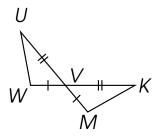




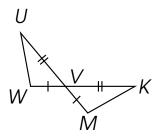




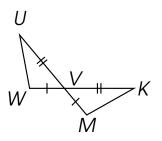
$$\overline{VW}\cong \overline{VM}$$



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

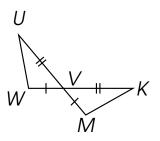


$$\overline{VW} \cong \overline{VM} \\
\overline{UV} \cong \overline{KV}$$



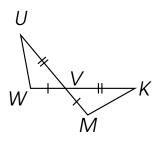
$$\frac{\overline{VW}}{\overline{UV}} \cong \frac{\overline{VM}}{\overline{KV}}$$

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



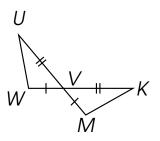
$$\overline{VW} \cong \overline{VM}$$
 $\overline{UV} \cong \overline{KV}$ 

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



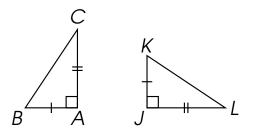
$$\frac{\overline{VW}}{\overline{UV}} \cong \frac{\overline{VM}}{\overline{KV}}$$

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

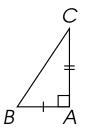


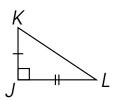
$$\overline{VW} \cong \overline{VM}$$
 $\overline{UV} \cong \overline{KV}$ 

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

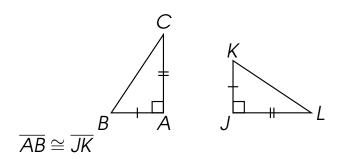


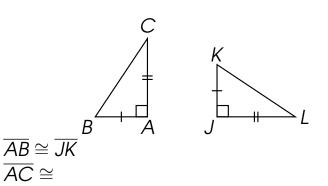
Complete the statements using the SSS congruence postulate.

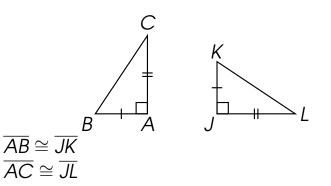


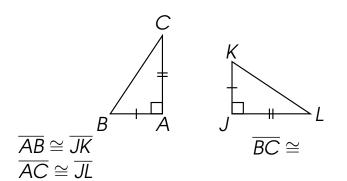


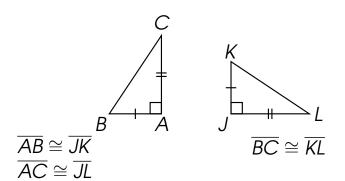
 $\overline{AB} \cong$ 

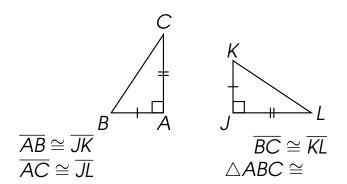


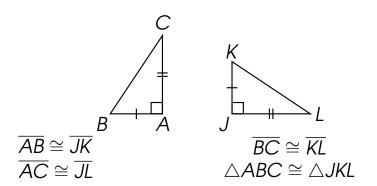


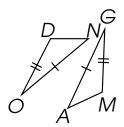


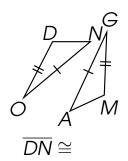


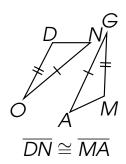


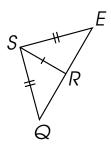


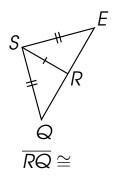


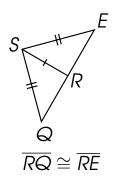


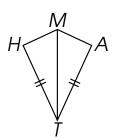


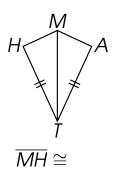


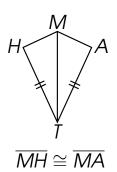


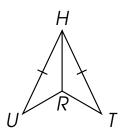


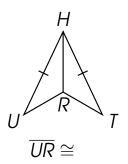


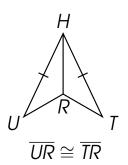


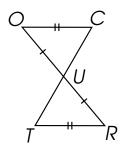


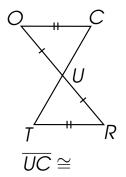


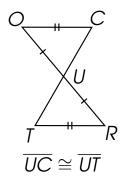


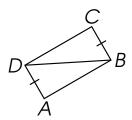


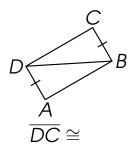


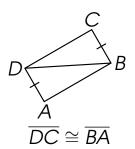


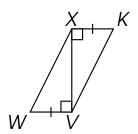


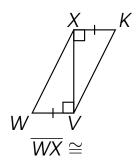


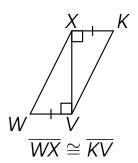


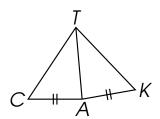


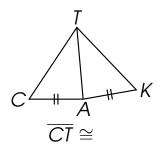


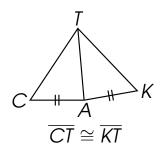


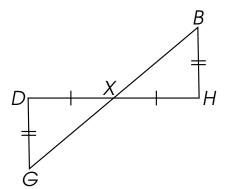


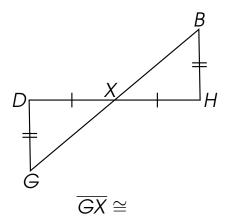


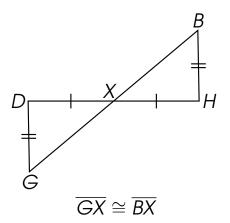


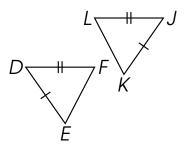


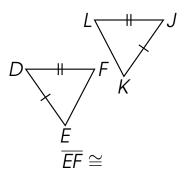


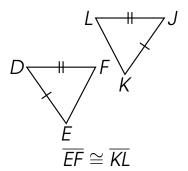












# Thank you for watching.