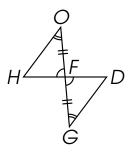
# ASA Triangle Congruence Postulate

Jonathan R. Bacolod

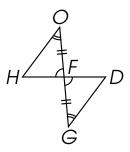
Sauyo High School

# ASA (Side-Angle-Side) Congruence Postulate

If the two angles and the included side of one triangle are congruent to the corresponding two angles and an included side of another triangle, then the triangles are congruent.

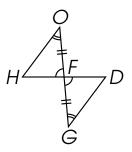


Show that  $\triangle OFH$  and  $\triangle GFD$  are congruent using the ASA triangle congruence postulate.

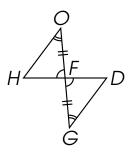


/OFH ≅

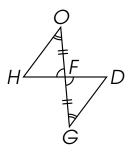
Show that  $\triangle OFH$  and  $\triangle GFD$  are congruent using the ASA triangle congruence postulate.



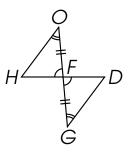
 $/OFH \cong /GFD$ 



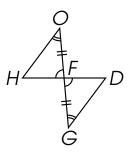
$$\angle OFH \cong \angle GFD$$
 $\overline{FO} \cong$ 



$$\angle OFH \cong \angle GFD$$
 $\overline{FO} \cong \overline{FG}$ 

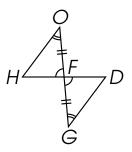


$$\angle OFH \cong \angle GFD$$
 $\overline{FO} \cong \overline{FG}$ 



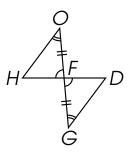
$$\angle OFH \cong \angle GFD$$
 $\overline{FO} \cong \overline{FG}$ 

$$\angle O \cong \angle G$$



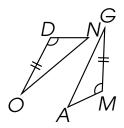
$$\angle OFH \cong \angle GFD$$
 $\overline{FO} \cong \overline{FG}$ 

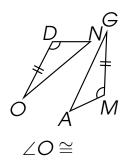
$$\angle O \cong \angle G$$
  
  $\therefore \triangle OFH \cong$ 

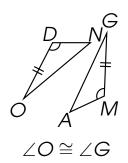


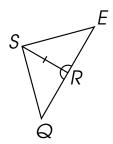
$$\angle OFH \cong \angle GFD$$
 $\overline{FO} \cong \overline{FG}$ 

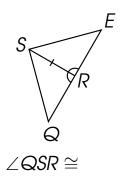
$$\angle O \cong \angle G$$
  
  $\therefore \triangle OFH \cong \triangle GFD$ 

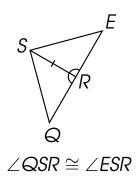


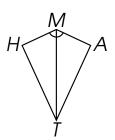


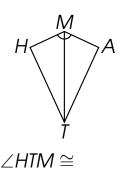


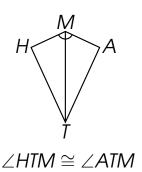


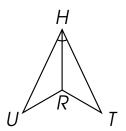


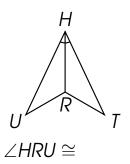


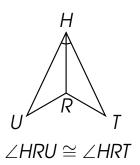


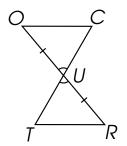


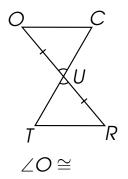


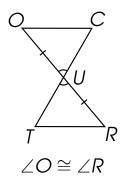


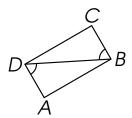


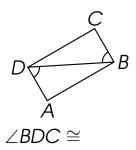


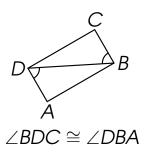


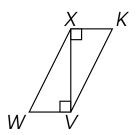


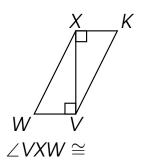


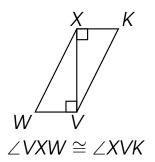


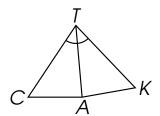


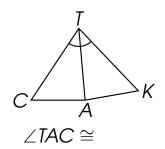




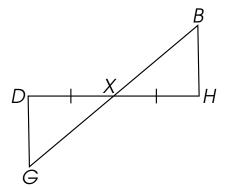


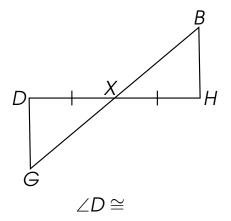


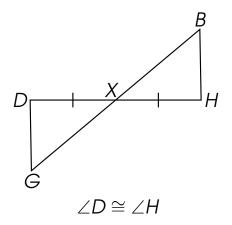


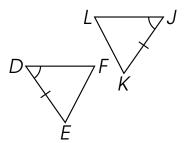


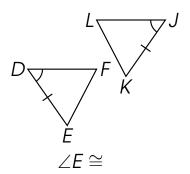


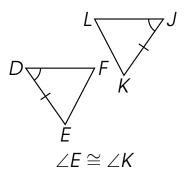


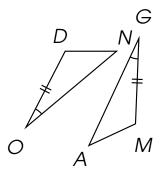


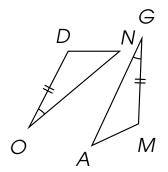




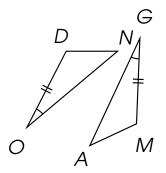




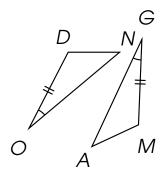




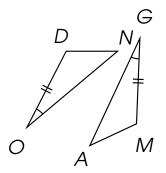




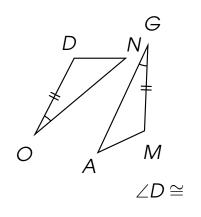
$$\overline{DO}\cong\overline{MG}$$



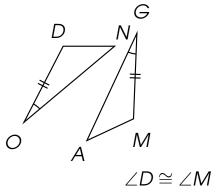
$$\overline{DO}\cong\overline{MG}$$
 $\angle O\cong$ 



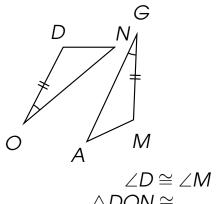
$$\overline{DO} \cong \overline{MG}$$
 $\angle O \cong \angle G$ 



$$\overline{DO} \cong \overline{MG}$$
 $\angle O \cong \angle G$ 

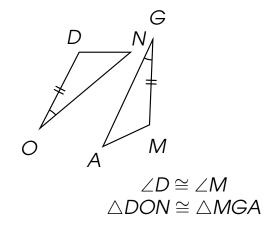


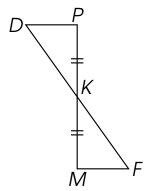
$$\overline{DO} \cong \overline{MG}$$
 $\angle O \cong \angle G$ 



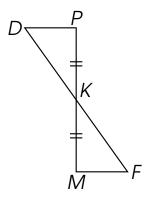
$$\overline{DO} \cong \overline{MG}$$
 $\angle O \cong \angle G$ 

$$\angle D \cong \angle M$$
  
\triangle DON \cong \co



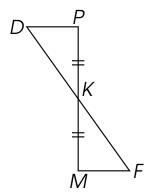


Complete the statements using the ASA congruence postulate.

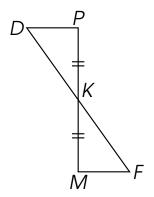


 $\overline{PK}\cong$ 

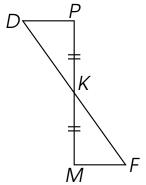
Complete the statements using the ASA congruence postulate.



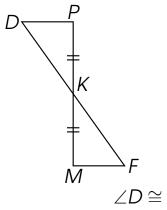
 $\overline{PK}\cong\overline{MK}$ 



$$\overline{PK} \cong \overline{MK}$$
 $\angle DKP \cong$ 

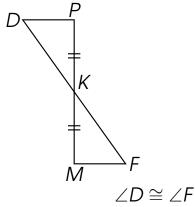


$$\overline{PK} \cong \overline{MK}$$
 $\angle DKP \cong \angle FKM$ 

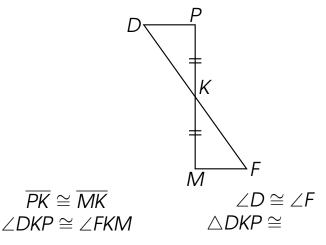


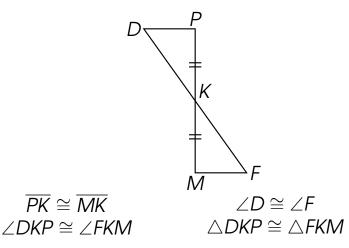
$$\overline{PK} \cong \overline{MK}$$
 $\angle DKP \cong \angle FKM$ 

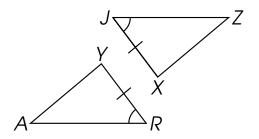
Complete the statements using the ASA congruence postulate.

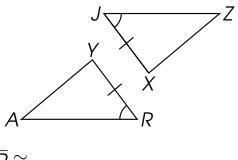


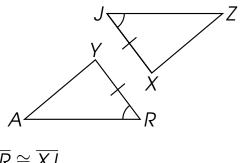
 $\overline{PK} \cong \overline{MK}$   $\angle DKP \cong \angle FKM$ 

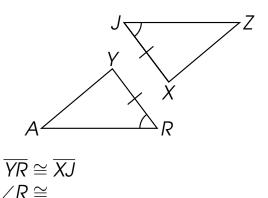


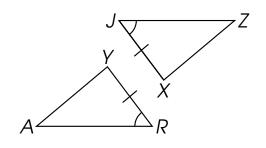




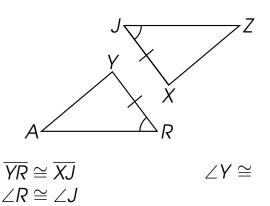


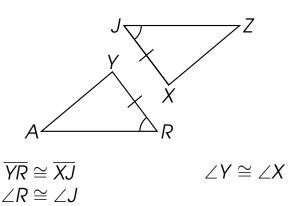


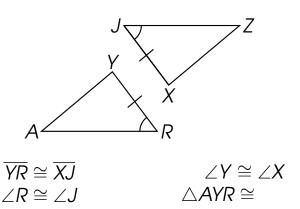


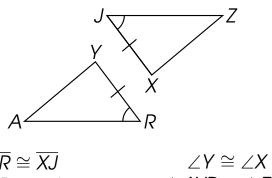


$$\overline{YR} \cong \overline{XJ}$$
 $\angle R \cong \angle J$ 



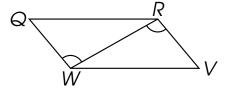


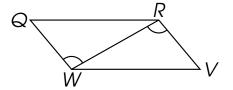




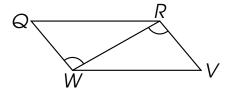
$$\overline{YR} \cong \overline{XJ}$$
 $\angle R \cong \angle J$ 

$$\angle Y \cong \angle X$$
  
  $\triangle AYR \cong \triangle ZXJ$ 

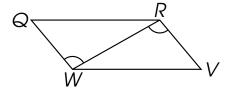




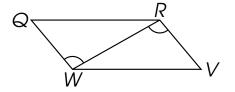
$$\overline{\mathit{RW}}\cong$$



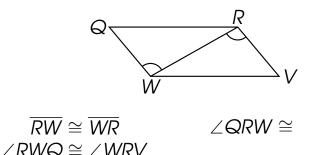
$$\overline{RW}\cong\overline{WR}$$

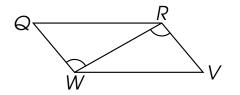


$$\overline{RW}\cong\overline{WR}$$
 $\angle RWQ\cong$ 

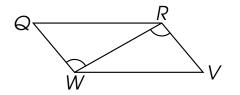


$$\overline{RW}\cong\overline{WR}$$
 $\angle RWQ\cong\angle WRV$ 

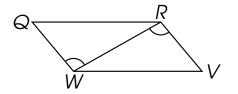




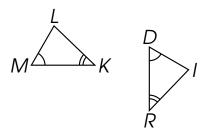
$$\overline{RW}\cong \overline{WR}$$
  $\angle QRW\cong \angle VWR$   
 $\angle RWQ\cong \angle WRV$ 

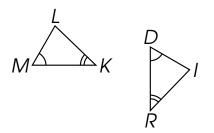


$$\overline{RW}\cong \overline{WR}$$
  $\angle QRW\cong \angle VWR$   
 $\angle RWQ\cong \angle WRV$   $\triangle QRW\cong$ 

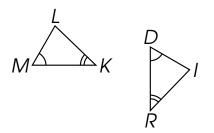


$$\overline{RW}\cong \overline{WR}$$
  $\angle QRW\cong \angle VWR$   $\angle RWQ\cong \angle WRV$   $\triangle QRW\cong \triangle VWR$ 

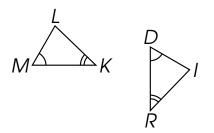




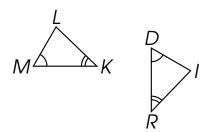
$$\angle M \cong$$



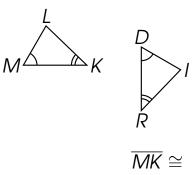
$$/M \cong /D$$



$$\angle M \cong \angle D$$
  
 $\angle K \cong$ 

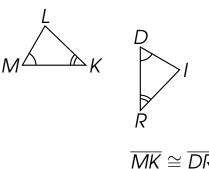


$$\angle M \cong \angle D$$
  
 $\angle K \cong \angle R$ 



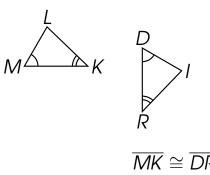
$$\angle M \cong \angle D$$
  
 $\angle K \cong \angle R$ 

$$\overline{\mathsf{MK}}\cong$$



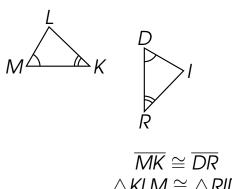
$$\angle M \cong \angle D$$
  
 $\angle K \cong \angle R$ 

$$\overline{\textit{MK}}\cong \overline{\textit{DR}}$$

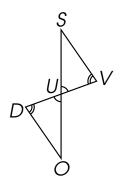


$$\angle M \cong \angle D$$
  
 $\angle K \cong \angle R$ 

$$\overline{MK} \cong \overline{DR}$$
  
 $\triangle KLM \cong$ 



$$\overline{MK} \cong \overline{DR}$$
  
 $\triangle KLM \cong \triangle RID$ 



Complete the statements using the ASA congruence postulate.

 $\angle DUO \cong$ 

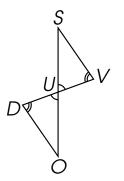
Complete the statements using the ASA congruence postulate.

 $\angle DUO \cong \angle VUS$ 

$$\angle DUO \cong \angle VUS$$
  
 $\angle D \cong \angle V$ 

$$\angle DUO \cong \angle VUS$$
  
 $\angle D \cong \angle V$ 

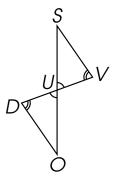
$$\overline{\mathit{UD}}\cong$$



$$\angle DUO \cong \angle VUS$$
  
 $\angle D \cong \angle V$ 

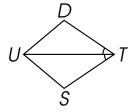
$$\overline{\mathit{UD}}\cong \overline{\mathit{UV}}$$

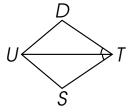
$$\begin{array}{c}
S \\
\overline{UD} \cong \overline{UV} \\
\triangle DUO \cong
\end{array}$$



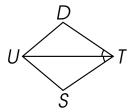
$$\angle DUO \cong \angle VUS$$
  
 $\angle D \cong \angle V$ 

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

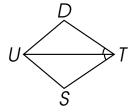




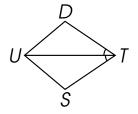
$$\overline{\mathit{UT}}\cong$$



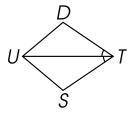
$$\overline{\mathit{UT}}\cong\overline{\mathit{UT}}$$



$$\overline{UT} \cong \overline{UT}$$
 $\angle DTU \cong$ 

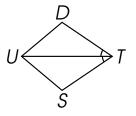


$$\overline{UT} \cong \overline{UT}$$
 $\angle DTU \cong \angle STU$ 



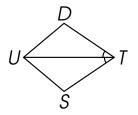
$$\overline{UT} \cong \overline{UT}$$
 $\angle DTU \cong \angle STU$ 

$$\angle DUT \cong$$



$$\overline{UT} \cong \overline{UT}$$
 $\angle DTU \cong \angle STU$ 

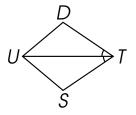
$$\angle DUT \cong \angle SUT$$



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

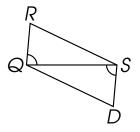
$$\angle DTU \cong \angle STU$$

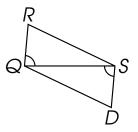
$$\angle DUT \cong \angle SUT$$
  
 $\triangle DTU \cong$ 



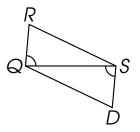
$$\overline{UT} \cong \overline{UT}$$
 $\angle DTU \cong \angle STU$ 

$$\angle DUT \cong \angle SUT$$
  
 $\triangle DTU \cong \triangle STU$ 

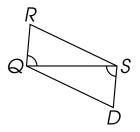




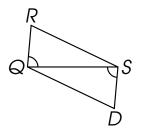
$$\overline{QS}\cong$$



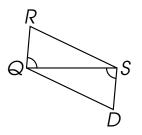
$$\overline{QS}\cong \overline{SQ}$$



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

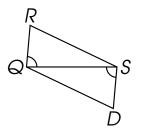


$$\overline{\mathsf{QS}}\cong\overline{\mathsf{SQ}}$$
  
 $\angle \mathsf{RQS}\cong\angle \mathsf{DSQ}$ 



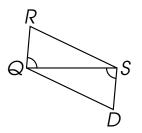
$$\overline{\mathsf{QS}}\cong\overline{\mathsf{SQ}}$$
 $\angle \mathsf{RQS}\cong\angle \mathsf{DSQ}$ 

$$\angle RSQ \cong$$



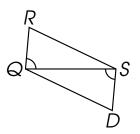
$$\overline{\mathsf{QS}}\cong\overline{\mathsf{SQ}}$$
 $\angle \mathsf{RQS}\cong\angle \mathsf{DSQ}$ 

$$\angle RSQ \cong \angle DQS$$



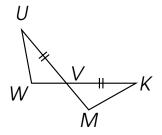
$$\overline{\mathsf{QS}}\cong\overline{\mathsf{SQ}}$$
  
 $\angle \mathsf{RQS}\cong\angle \mathsf{DSQ}$ 

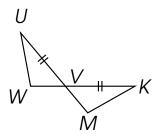
$$\angle$$
RSQ  $\cong$   $\angle$ DQS  
 $\triangle$ RQS  $\cong$ 



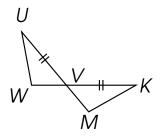
$$\overline{\mathsf{QS}}\cong\overline{\mathsf{SQ}}$$
  
 $\angle \mathsf{RQS}\cong\angle \mathsf{DSQ}$ 

$$\angle RSQ \cong \angle DQS$$
  
 $\triangle RQS \cong \triangle DSQ$ 

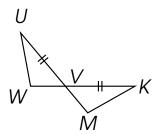




$$\overline{\mathit{UV}} \cong$$

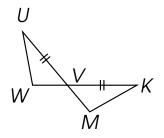


$$\overline{UV} \cong \overline{KV}$$



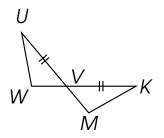
$$\overline{UV} \cong \overline{KV}$$

$$\angle UVW \cong$$



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

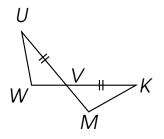
$$/UVW \cong /KVM$$



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

$$\angle UVW \cong \angle KVM$$

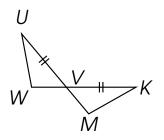
$$\angle U \cong$$



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

$$\angle UVW \cong \angle KVM$$

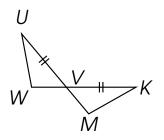
$$\angle U \cong \angle K$$



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

$$\angle UVW \cong \angle KVM$$

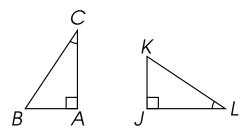
$$\angle U \cong \angle K$$
  
  $\triangle UVW \cong$ 

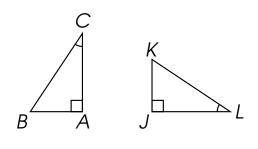


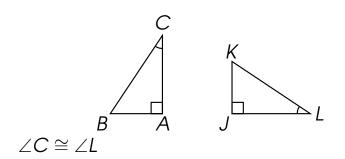
$$\overline{UV} \cong \overline{KV}$$

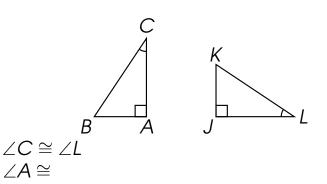
$$\angle UVW \cong \angle KVM$$

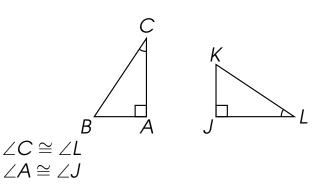
$$\angle U \cong \angle K$$
  
  $\triangle UVW \cong \triangle KVM$ 

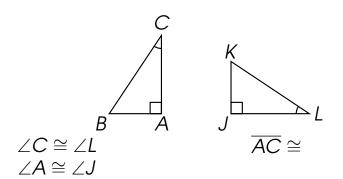


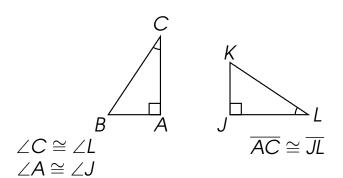


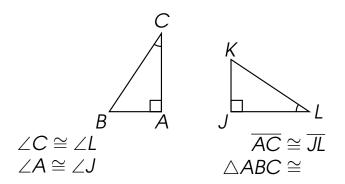


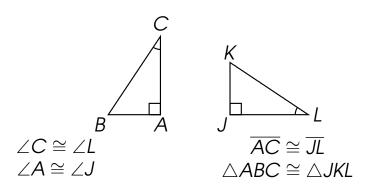












# Thank you for watching.