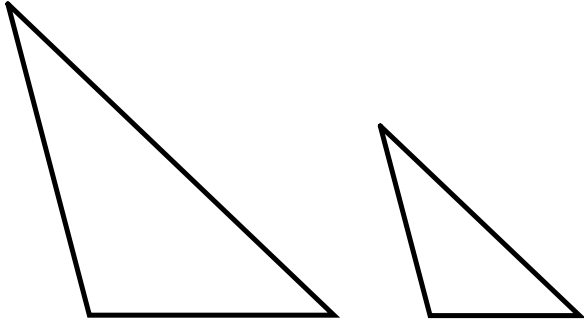


3.3 Proving Triangles are Similar

Objective: Students will be able to prove triangles are similar

Proving Triangles are Similar

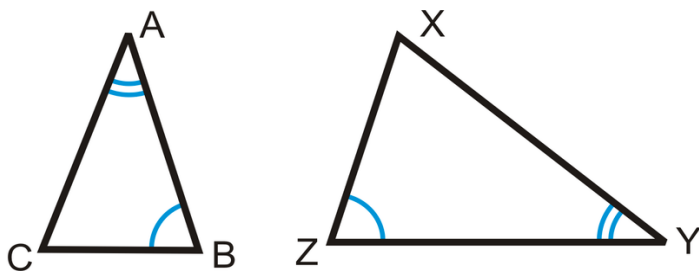
There are _____ ways to PROVE triangles are similar



1. _____
2. _____
3. _____

Angle Angle (AA) Similarity

Triangles are _____ if _____ angles of one triangle are congruent to _____ angles of another triangle.



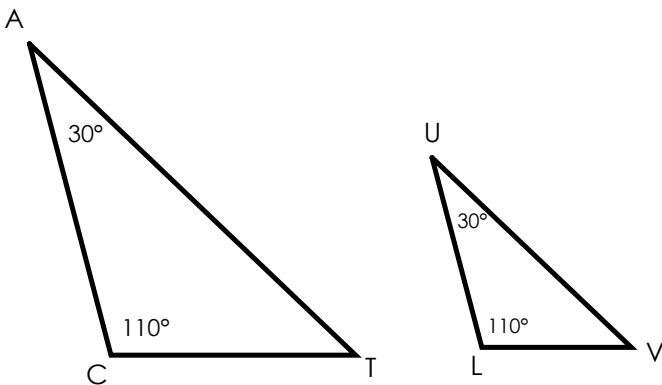
Evidence

1. _____
2. _____

Conclusion

--

Prove the following triangles are similar.

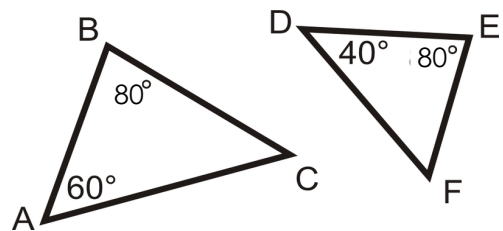


Evidence

1. _____
2. _____

Conclusion

--



Evidence

1. _____
2. _____

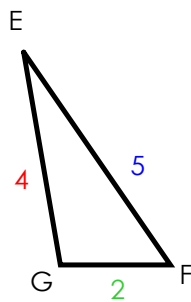
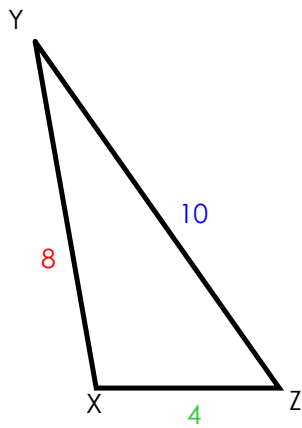
Conclusion

--

Side - Side - Side (SSS) Similarity

If all three pairs of corresponding sides of two triangles have the same ratio, then the two triangles are _____.

Always simplify!

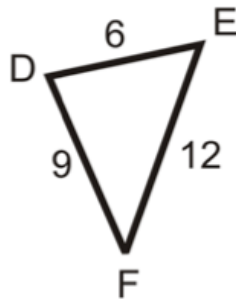
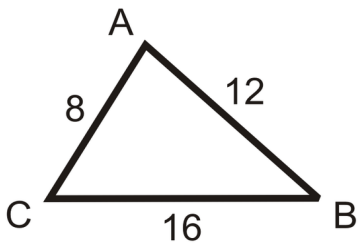


Evidence

$\frac{YZ}{EF}$	=	_____	=	<input type="checkbox"/>
$\frac{XY}{GE}$	=	_____	=	<input type="checkbox"/>
$\frac{XZ}{GF}$	=	_____	=	<input type="checkbox"/>

Conclusion

Prove triangle CBA is similar to triangle EFD.

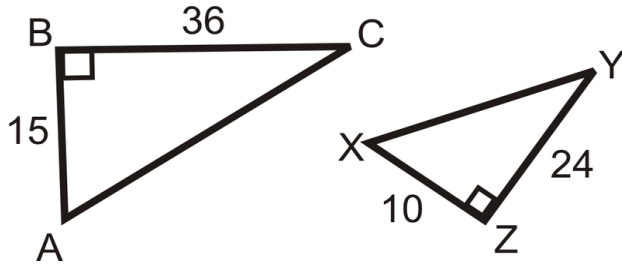


Evidence

Conclusion

Side - Angle - Side (SAS)

If _____ sides in one triangle are proportional to _____ sides in another triangle **and** the included angle in both are congruent, then the two triangles are similar

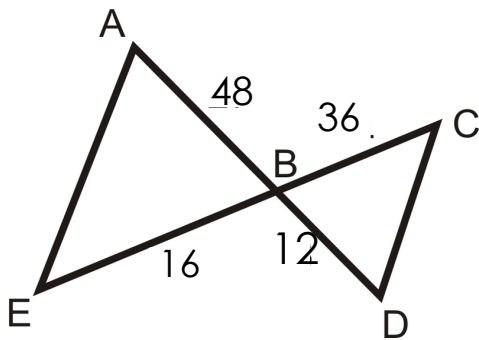


Evidence

_____ = _____ =	<input style="width: 30px; height: 20px;" type="text"/>
\angle _____ \cong \angle _____	
_____ = _____ =	<input style="width: 30px; height: 20px;" type="text"/>

Conclusion

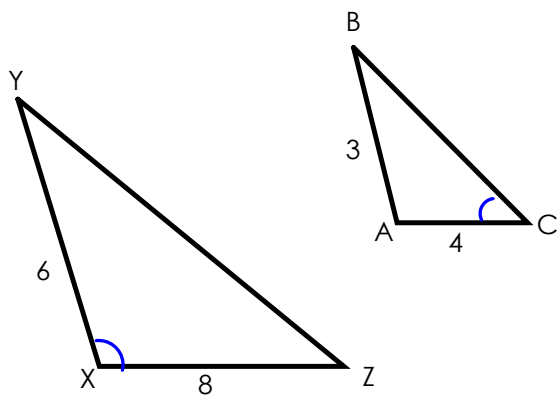
Prove $\triangle ABE \sim \triangle CBD$



Evidence

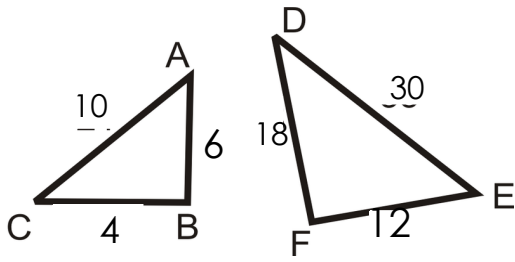
Conclusion

Prove if the triangles below are similar



Independent Practice

Prove $\triangle ABC \sim \triangle DEF$

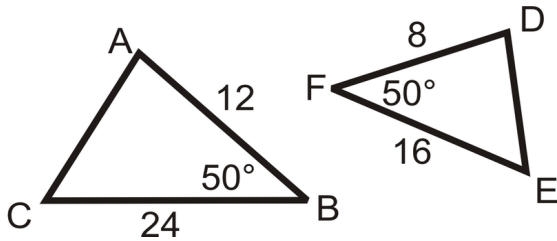


Evidence

			=		=	=	<input type="checkbox"/>
			=		=	=	<input type="checkbox"/>
			=		=	=	<input type="checkbox"/>

Conclusion

Prove $\triangle ABC \sim \triangle DEF$

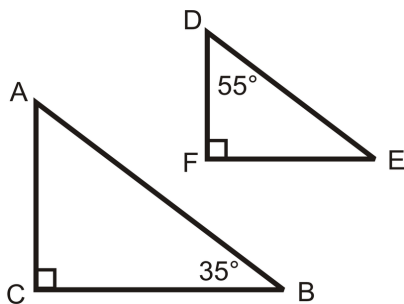


Evidence

			=		=	=	<input type="checkbox"/>
			\cong		\cong	\cong	<input type="checkbox"/>
			=		=	=	<input type="checkbox"/>

Conclusion

Prove $\triangle ABC \sim \triangle DEF$



Evidence

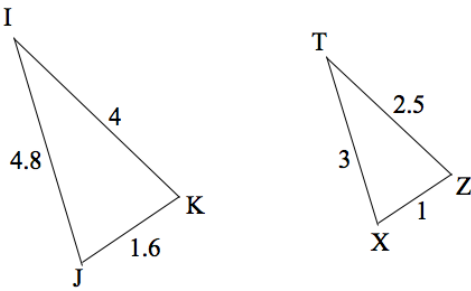
1. _____

2. _____

Conclusion

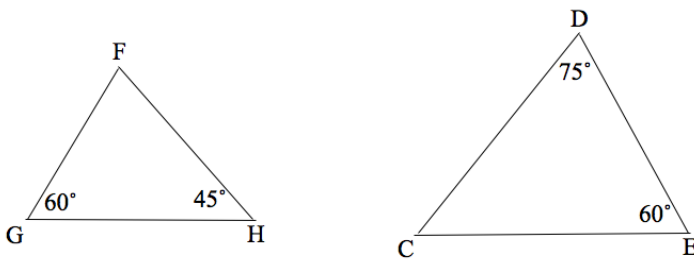
Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using SSS, SAS, and AA. Make sure you have work to support your answer.

1.



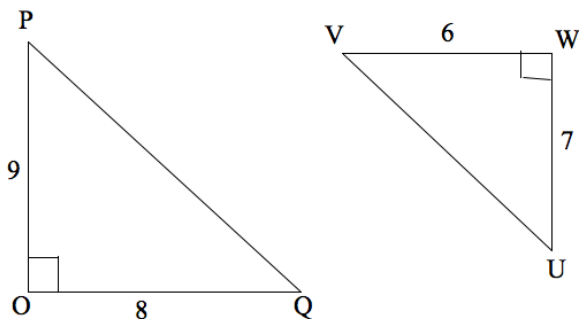
Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using SSS-, SAS-, and AA-. Make sure you have work to support your answer.

2.

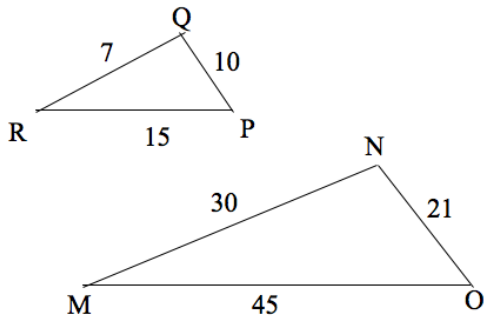


Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using SSS-, SAS-, and AA-. Make sure you have work to support your answer.

3.

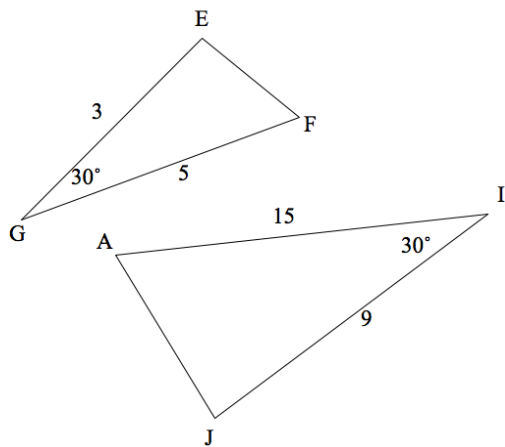


Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using SSS~, SAS~, and AA~. Make sure you have work to support your answer.



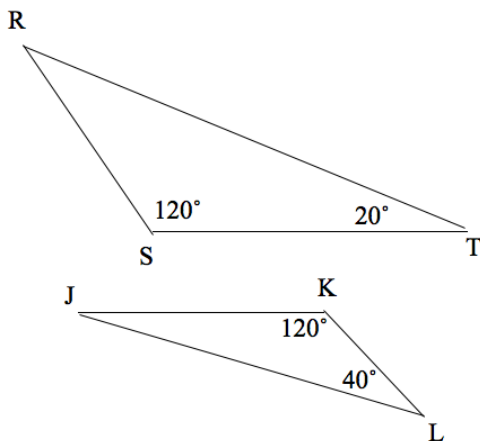
Yes No

Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using SSS~, SAS~, and AA~. Make sure you have work to support your answer.



Yes No

Determine whether each pair of triangles is similar. If the triangles are similar, justify your answer by using SSS~, SAS~, and AA~. Make sure you have work to support your answer.



Yes No

