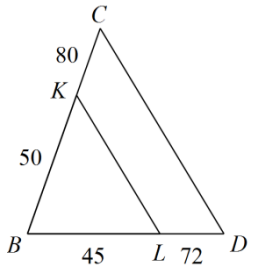
Geometry
Proofs of Similar Triangles

Determine if the triangles in each pair are similar and state the property used to prove similarity.

1.



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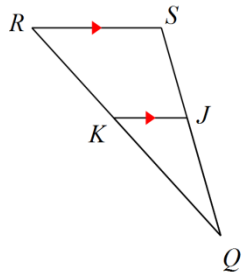
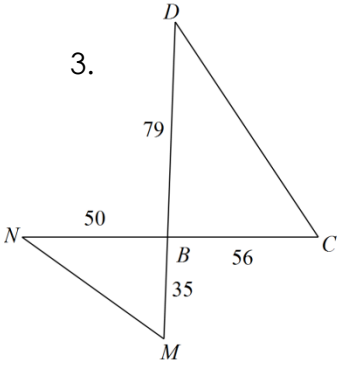


3.



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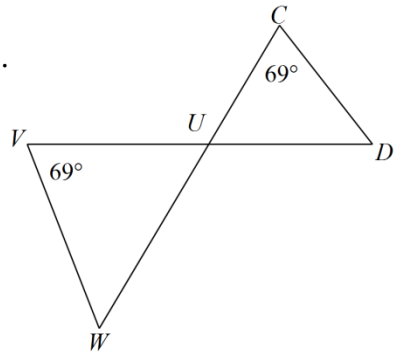
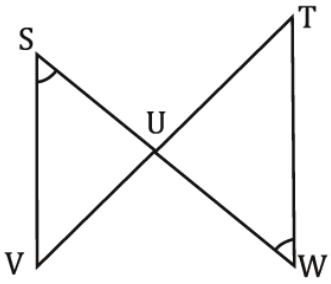


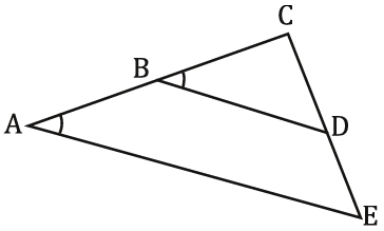
ΔBKL~Δ_____ by _____ ΔRSQ~Δ_____ by _____ ΔCBD~Δ_____ by _____ ΔCUD~Δ_____ by ____

5. Given: $\angle S \cong \angle W$ Prove: $\Delta SUV \sim \Delta WUT$



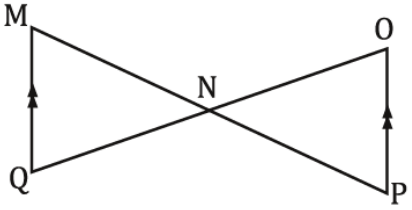
Statement	Reason
1.	1.
2.	2.
3.	3.

6. Given: $\angle A \cong \angle B$ Prove: $\Delta ACE \sim \Delta BCD$



Statement	Reason
1.	1.
2.	2.
3.	3.

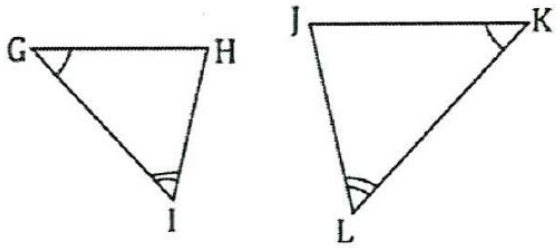
7. Given: $\overline{MQ} \parallel \overline{OP}$ Prove: $\Delta MNQ \sim \Delta PNO$



Statement	Reason
1.	1.
2.	2.
3.	3.
4.	4.

You Try These!!

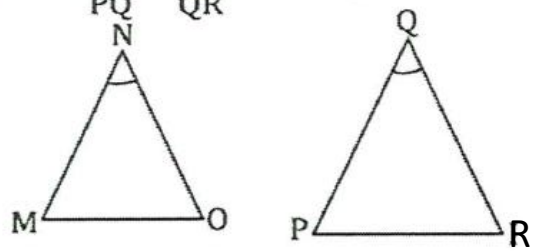
8. Given: $\angle G \cong \angle K$, and $\angle I \cong \angle L$



Prove: $\triangle GHI \sim \triangle KJL$

Statements	Reasons
1. $\angle G \cong \angle K$	1.
2.	2. Given
3. $\triangle GHI \sim \triangle KJL$	3.

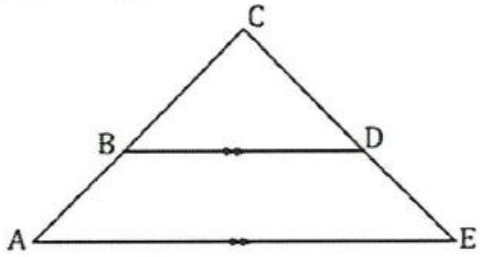
9. Given: $\frac{MN}{PQ} = \frac{NO}{QR}$, $\angle N \cong \angle Q$



Prove: $\triangle MNO \sim \triangle PQR$

Statements	Reasons
1. $\frac{MN}{PQ} = \frac{NO}{QR}$	1.
2.	2. Given
3. $\triangle MNO \sim \triangle PQR$	3.

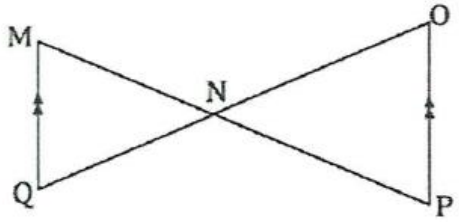
10. Given: $\overline{AE} \| \overline{BD}$



Prove: $\triangle ACE \sim \triangle BCD$

Statements	Reasons
1. $\overline{AE} \| \overline{BD}$	1.
2.	2. Corresponding Angles
3.	3.
4.	4. AA

11. Given: $\overline{MQ} \| \overline{OP}$



Prove: $\triangle MQN \sim \triangle OPN$

Statements	Reasons
1. $\overline{MQ} \| \overline{OP}$	1.
2. $\angle QMN \cong \angle OPN$	2.
3.	3. Alternate Interior
4. $\triangle MQN \sim \triangle OPN$	4.