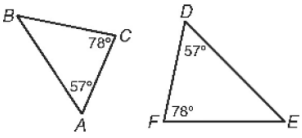
Name: _____ Date: _____

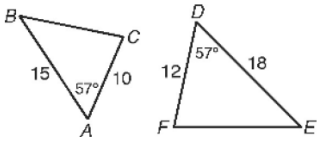
Ways to Prove Triangles are Similar

AA~ Postulate:
If two angles of one triangle are _____ to two angles of another, then the triangles are similar.



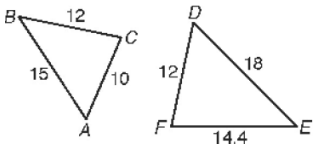
△ABC ~ △DEF

SAS~ Postulate:
If the lengths of two sides are _____ and the _____ angle is _____, then the triangles are similar.



△ABC ~ △DEF

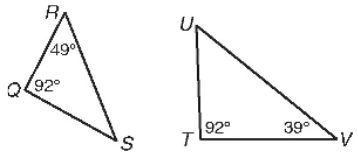
SSS~ Postulate:
If ___ _____ sides of one triangle are _____ to corresponding _____ of another triangle, then the triangles are similar.



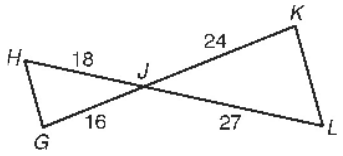
△ABC ~ △DEF

Practice: Explain why the triangles are similar (SSS~, SAS~, or AA~) and write a similarity statement.

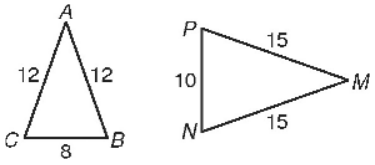
1) ΔRQS~_____ by _____



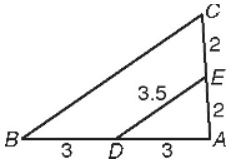
2) ΔHGJ~_____ by _____



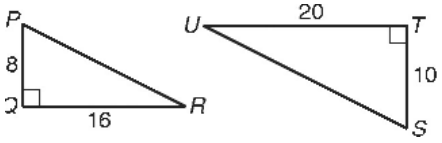
3) ΔABC~_____ by _____



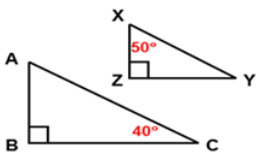
4) ΔADE~_____ by _____



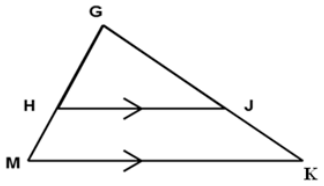
5) ΔQPR~_____ by _____



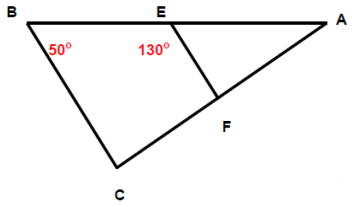
6) ΔABC~_____ by _____



7) ΔGHJ~_____ by _____

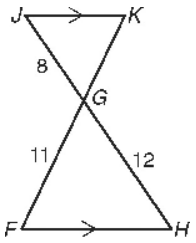


8) ΔAEF~_____ by _____

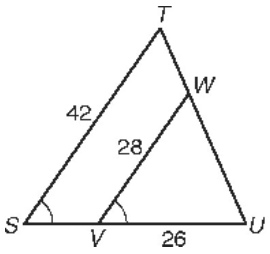


Explain why the triangles are similar (SSS~, SAS~, or AA~) and find each length.

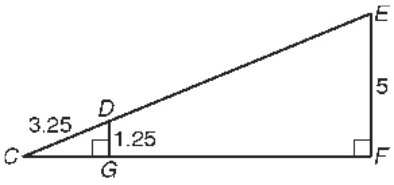
9) Similar by _____ and GK = _____



10) Similar by _____ and SU = _____



11) Similar by _____ and DE = ____



12) Similar by _____ and RQ = ____